



**JAN 13 2021**

**Alabama Department of Environmental Management**  
**adem.alabama.gov**

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

Terry Bunn  
President  
Bunn Brothers Materials, Inc.  
611 Helen Keller Blvd  
Tuscaloosa, AL 35404

RE: Draft Permit  
Berry Sandstone Quarry  
NPDES Permit No. AL0071323  
Fayette County (057)

Dear Mr. Bunn:

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 reissue 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.

Please be aware that Part I.D of your permit requires participation in the Department's web-based Electronic Environmental (E2) Reporting System Program for submittal of DMRs upon issuance of this permit unless valid justification as to why you cannot participate is submitted in writing. The E2 Program allows ADEM to electronically validate, acknowledge receipt, and upload data to the state's central wastewater database. This improves the accuracy of reported compliance data and reduces costs to both the regulated community and ADEM. The Permittee Participation Package may be downloaded online at <https://e2.adem.alabama.gov/npdes> or you may obtain a hard copy by submitting a written request or by emailing [e2admin@adem.alabama.gov](mailto:e2admin@adem.alabama.gov).

Should you have any questions concerning this matter, please contact Jasmine White by email at [jasmine.white@adem.alabama.gov](mailto:jasmine.white@adem.alabama.gov) or by phone at (334) 270-5622.

Sincerely,

Catherine A. McNeill, Chief  
Mining and Natural Resource Section  
Stormwater Management Branch  
Water Division

CAM/jlw File: DPER/2291

Enclosure

cc: Jasmine White, 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  
Alabama Department of Labor





# NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM INDIVIDUAL PERMIT

PERMITTEE: Bunn Brothers Materials, Inc.  
611 Helen Keller Blvd.  
Tuscaloosa, AL 35404

FACILITY LOCATION: Berry Sandstone Quarry  
2700 County Road 30  
Berry, AL 35546  
Fayette County  
T16S, R10W, Sections 9, 15, 16

PERMIT NUMBER: AL0071323

DSN & RECEIVING STREAM: 001-1 Cedar Creek  
002-1 Unnamed Tributary to Cedar Creek  
003-1 Cedar Creek  
004-1 Little Cedar Creek  
005-1 Unnamed Tributary to Cedar 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 \*\***

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Alabama Department of Environmental Management

**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:

Parameter	Discharge Limitations			Monitoring Requirements	
	Daily Minimum	Monthly Average	Daily Maximum	Sample Type	Measurement Frequency <sup>1</sup>
pH 00400	6.0 s.u.	-----	8.5 s.u.	Grab	2/Month
Solids, Total Suspended 00530	-----	25.0 mg/L	45.0 mg/L	Grab	2/Month
Flow, In Conduit or Thru Treatment Plant <sup>2</sup> 50050	-----	Report MGD	Report MGD	Instantaneous	2/Month

### B. REQUIREMENTS TO ACTIVATE A PROPOSED MINING OUTFALL

1. 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.
3. 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.
4. 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.

<sup>1</sup> See Part I.C.2. for further measurement frequency requirements.

<sup>2</sup> 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. 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. If required by the Director, 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 28<sup>th</sup> day of the month following the quarterly reporting period (i.e., on the 28<sup>th</sup> day of January, April, July, and October of each year).
- b. The Department utilizes a web-based electronic environmental (E2) 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 E2 reporting system. The E2 reporting system Permittee Participation Package may be downloaded online at <https://e2.adem.alabama.gov/npdes>.

- c. If the electronic environmental (E2) 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 E2 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 E2 system resuming operation, the Permittee shall enter the data into the E2 reporting system unless an alternate timeframe is approved by the Department. An attachment should be included with the E2 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.j.
- 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. The Permittee shall report "No Discharge During Quarterly Monitoring Period" on the appropriate DMR Form for each point source receiving pumped discharges pursuant to Part I.C.1.b. provided that no discharge has occurred at any time during the entire quarterly (three month) monitoring period.
- h. 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.
- i. 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."

- j. All DMRs, reports, and forms required to be submitted by this Permit, the AWPCA and the Department's rules and regulations, 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

- k. 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.
- l. 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. Any written report required to be submitted to the Director in accordance with Parts I.D.2.a. and b. shall be submitted using a Noncompliance Notification Form (ADEM Form 421) available on the Department's website (<http://adem.alabama.gov/DeptForms/Form421.pdf>) and include 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**

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, the information indicated in ADEM Admin. Code r. 335-6-9-.03 and ADEM Admin. Code ch. 335-6-9 Appendices A and 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).

#### **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 required by applicable state (ADEM Admin. Code r. 335-6-6-.12(r)) and federal (40 C.F.R. §§112.1-.7)

regulations. The Permittee shall implement appropriate structural and/or non-structural spill prevention, control, and/or management 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. Careful consideration should be applied for tanks or containers located near treatment ponds, water bodies, or high traffic areas. In most situations this would require construction of a containment system if the cumulative storage capacity of petroleum products or other pollutants at the facility is greater than 1320 gallons. 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 applicant shall maintain onsite or have readily available flotation booms to contain, and sufficient material to 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 an approved manner.

- 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. Except as provided in Parts II.B.2.b. and c., a discharge which results from an upset need not meet the applicable discharge limitations specified in Part I.A. of this Permit if:
- (1) No later than 24-hours after becoming aware of the occurrence of the upset, the Permittee orally reports the occurrence and circumstances of the upset to the Director; and
  - (2) No later than five (5) days after becoming aware of the occurrence of the upset, the Permittee furnishes 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.

- b. Notwithstanding the provisions of Part II.B.2.a., 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 exempted from the discharge limitations specified in Part I.A. of this Permit 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.
- c. The Permittee has the burden of establishing that each of the conditions of Parts II.B.2.a. and b. have been met to qualify for an exemption from the discharge limitations specified in Part I.A. of this Permit.

## **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. 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.

**4. 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.

**5. 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.

**6. 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 Code of Alabama 1975, §§22-22A-1 et. seq., as amended, and/or a criminal penalty as authorized by Code of Alabama 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 1 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.
- 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-.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 Code of Alabama 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 Code of Alabama 1975, §§22-22A-1 et. seq., as amended.
2. Alabama Water Pollution Control Act (AWPCA) - means Code of Alabama 1975, §§22-22-1 et. 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.
7. 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. Crushed stone mine - means an area on or beneath land which is mined, quarried, or otherwise disturbed in activity related to the extraction, removal, or recovery of stone from natural or artificial deposits, including active mining, reclamation, and mineral storage areas, for production of crushed stone.
10. 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.
11. Daily maximum - means the highest value of any individual sample result obtained during a day.
12. Daily minimum - means the lowest value of any individual sample result obtained during a day.
13. Day - means any consecutive 24-hour period.
14. Department - means the Alabama Department of Environmental Management.
15. Director - means the Director of the Department or his authorized representative or designee.
16. 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).
17. Discharge monitoring report (DMR) - means the form approved by the Director to accomplish monitoring report requirements of an NPDES Permit.
18. DO - means dissolved oxygen.
19. E. coli – means the pollutant parameter Escherichia coli.
20. 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.
21. EPA - means the United States Environmental Protection Agency.
22. Federal Water Pollution Control Act (FWPCA) - means 33 U.S.C. §§1251 et. seq., as amended.
23. Flow -- means the total volume of discharge in a 24-hour period.
24. 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).
25. 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.
26. 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.
27. 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.
28. mg/L - means milligrams per liter of discharge.
29. MGD - means million gallons per day.
30. 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.)
31. 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.
32. 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.
33. NH<sub>3</sub>-N - means the pollutant parameter ammonia, measured as nitrogen.
34. 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.
35. Permit application - means forms and additional information that are required by ADEM Admin. Code r. 335-6-6-.08 and applicable permit fees.
36. 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).
37. 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.
38. Pollutant of Concern - means those pollutants for which a water body is listed as impaired or which contribute to the listed impairment.
39. 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
40. 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.
41. 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.
42. 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".
43. 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.
44. Receiving Stream - means the "waters" receiving a "discharge" from a "point source".

45. 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.
46. 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.
47. TKN - means the pollutant parameter Total Kjeldahl Nitrogen.
48. TON - means the pollutant parameter Total Organic Nitrogen.
49. TRC - means Total Residual Chlorine.
50. TSS – means the pollutant parameter Total Suspended Solids
51. 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.
52. 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.
53. 24-hour precipitation event - means that amount of precipitation which occurs within any 24-hour period.
54. 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.
55. 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.
56. 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.

57. Week - means the period beginning at twelve midnight Saturday and ending at twelve midnight the following Saturday.
58. 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 ACTIVITIES 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.
3. 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:** Bunn Brothers Materials, Inc.  
**Facility Name:** Berry Sandstone Quarry  
**County:** Fayette  
**Permit Number:** AL0071323  
**Prepared by:** Jasmine White  
**Date:** December 30, 2020  
**Receiving Waters:** Cedar Creek, Little Cedar Creek, Unnamed Tributary to Cedar Creek  
**Permit Coverage:** Non-Metallic Crushed Stone Mine, Dry Preparation, Transportation, Storage, and Associated Areas  
**SIC Code:** 1429

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

This proposed permit covers a dry preparation crushed stone mine, transportation, storage, and associated areas which discharge to surface waters of the state.

The proposed permit authorizes treated discharges into a stream segment, other State water, or local watershed 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 crushed stone mining facilities can be found in 40 CFR 436.22(1) and (2) for facilities that recycle waste water for use in processing and mine dewatering, respectively. The TBELs were promulgated for existing dischargers using the Best Practicable Control Technology Available (BPT). New Source Performance Standards (NSPS) have not yet been developed by the EPA for the Crushed Stone Subcategory.

The instream WQS for pH, for streams classified as F&W, are 6.0 - 8.5 s.u per ADEM Admin Code r. 335-6-10-.09. The existing point source TBELs found in 40 CFR 436 Subpart B allow discharge limitations for pH of 6.0 – 9.0 s.u. Information provided in the Permittee’s application indicated that Outfalls 001-1 through 005-1 could discharge chronically when the discharge/stream flow ratio may be high; therefore, discharge limitations for pH of 6.0 – 8.5 s.u. are proposed for all outfalls per ADEM Admin Code r. 335-6-10-.09.

The TBELs for 40 CFR 436 Subpart B do not include limitations for Total Suspended Solids (TSS). TSS is classified as a conventional pollutant in 40 CFR 401.16 and is expected to be discharged from this type of facility. Therefore, monthly average and daily maximum effluent limitations for TSS are those proposed by the EPA for crushed stone 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 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.

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 WQS.

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 of pollutants to a water of the State with an approved Total Maximum Daily Load (TMDL).

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 new discharges of pollutant(s) to an ADEM identified Tier I water.

The proposed permit does not authorize new or increased discharges of pollutants to a Tier II water. Therefore, the Antidegradation Policy (ADEM Admin. Code 335-6-10-.04) does not apply to this permit.

**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.

P# 20-51622  
\$5,820.00

**Purpose of this Application**

- Initial Permit Application for New Facility   
  Initial Permit Application for Existing Facility (e.g., facility previously permitted less than 5 acres)  
 Modification of Existing Permit   
  Reissuance of Existing Permit   
  Reissuance & Modification Existing Permit  
 Reissuance & Transfer of Existing Permit   
  Revocation and Reissuance of Existing Permit   
  Other \_\_\_\_\_

**I. GENERAL INFORMATION**

RECEIVED

NPDES Permit Number (Not applicable if initial permit application): AL_0071323	County(s) in which Facility is Located: Fayette
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MAY 04 2020

Company/Permittee and Facility Information						STORM WATER MANAGEMENT BRANCH
Company/Permittee Name Bunn Brothers Materials, Inc.			Facility Name Berry Sanstone Quarry			
Mailing Address of Company/Permittee: 611 Helen Keller Blvd.			Physical Address of Operation (as near as possible to main entrance): 2700 County Road 30			
City Tuscaloosa	State AL	Zip Code 35404	City Berry	State AL	Zip 35546	
Permittee Phone Number 205-752-8195		Permittee Fax Number: 205-349-4288		Latitude and Longitude of Main Entrance: Lat - 33° 39' 48", Lon - 87° 34' 20"		

Responsible Official (RO) Information					
RO Name (as described on Page 12 of this application): Terry Bunn			RO Official Title: President		
Mailing Address: 611 Helen Keller Blvd.			Physical Address: 611 Helen Keller Blvd.		
City Tuscaloosa	State AL	Zip Code 35404	City Tuscaloosa	State AL	Zip Code 35404
Phone Number: 205-752-8195		Fax Number: 205-349-4288		Email Address: barry.snyder@stbunn.com	

Facility Contact Information					
Facility Contact Name: Barry Snyder			Facility Contact Title: Environmental Coordinator		
Physical Address: 611 Helen Keller Blvd.			Phone Number: 205-752-8195		Fax Number: 205-349-4288
City Tuscaloosa	State AL	Zip Code 35404	Email Address: barry.snyder@stbunn.com		

**II. MEMBER INFORMATION**

A. Identify the name, title/position, and unless waived in writing by the Department, the resident address of every officer (a PO Box is not acceptable), general partner, LLP partner, LLC member, investor, director, or person performing a function similar to a director, of the applicant, and each person who is the record or beneficial owner of 10 percent or more of any class of voting stock of the applicant, or any other responsible official(s) of the applicant with legal or decision making responsibility or authority for the facility:

Name	Title/Position	Physical Address of Residence
Terry Bunn	President	1006 Pinemont Dr. N Tuscaloosa, AL 35406
S.T. Bunn Jr.	Vice President	3900 Rice Mine Rd NE Tuscaloosa, AL 35401

B. Other than the "Company/Permittee" listed in Part I, identify the name of each corporation, partnership, association, and single proprietorship for which any individual identified in Part II.A. is or was an officer, general partner, LLP partner, LLC member, investor, director, or individual performing a function similar to a director, or principal (10% or more) stockholder, that had an Alabama NPDES permit at any time during the five year (60 month) period immediately preceding the date on which this form is signed:

Name of Corporation, Partnership, Association, or Single Proprietorship	Name of Individual from Part II.A	Title/Position in Corporation, Partnership, Association, or Single Proprietorship
S. T. Bunn Construction Co., Inc.	Terry Bunn	Vice President
S. T. Bunn Construction Co., Inc.	S.T. Bunn Jr.	President

**III. LEGAL STRUCTURE OF APPLICANT**

A. Indicate the legal structure of the "Company/Permittee" listed in Part I:

- Corporation   
  Association   
  Individual   
  Single Proprietorship   
  Partnership   
  LLP   
  LLC  
 Government Agency   
  Other

B. If not an individual, single proprietorship, or government agency, is the "Company/Permittee" listed in Part I. properly registered and in good standing with the Alabama Secretary of State's office. (If the answer is "No," attach a letter of explanation.)  Yes  No

C. Parent Corporation and Subsidiary Corporations of Applicant, if any:

None

D. Landowner(s):

Jo Ann Osborn Revocable Trust in C/O James R. Osborn; Clera Swindel Life Estate in C/O George W. Ballard, Ray & Barbara Ingle

E. Sub-contractor(s)/Operator(s), if known:

None

**IV. COMPLIANCE HISTORY**

A. Has the applicant ever had any of the following:

- | Yes                      | No                                  |   |
|--------------------------|-------------------------------------|---|
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | (1) An Alabama NPDES, SID, or UIC permit suspended or terminated?   |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | (2) An Alabama or federal environmental permit suspended/terminated?  |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | (3) An Alabama State Oil & Gas Board permit or other approval suspended or terminated?  |
| <input type="checkbox"/> | <input checked="" type="checkbox"/> | (4) An Alabama or federal performance/environmental bond, or similar security deposited in lieu of a bond, or portion thereof, forfeited? |

(If the response to any item of Part IV.A. is "Yes," attach a letter of explanation.)

B. Identify every Warning Letter, Notice of Violation (NOV), Administrative Action, or litigation issued to the applicant, parent corporation, subsidiary, general partner, LLP partner, or LLC Member and filed by ADEM or EPA during the three year (36 month) period preceding the date on which this form is signed. Indicate the date of issuance, briefly describe alleged violations, list actions (if any) to abate alleged violations, and indicate date of final resolution:

None



V.B Other Permits/Authorizations

ADEM NPDES –

Marion County Rock AL0070289, Fosters Borrow Pit AL0083283  
Wolf Creek Quarry AL0013504, Howton Quarry AL0082228

ADIR Permits -

No. 012045, 011309, and 011746

ADEM Air Permits -

Wolf Creek Quarry Permit No. 413-0090  
Berry Quarry- Permit No. 414-0016  
Howton Pug Mill No. 413-0112  
East Tuscaloosa Quarry 413-0105  
Tuscaloosa Slag Crushing Plant Permit No. 413-0002  
Tuscaloosa Permit No. 413-0117  
Tuscaloosa Asphalt Plant Permit No. 413-002  
Demopolis Asphalt Plant Permit No. 105-0018  
Epes Permit No. 412-0010  
Marion County Asphalt Permit No. 710-0038  
Fayette Permit No. 404-0003  
Eutaw Permit No. 405-0008

ADEM NPDES (Borrow Pits) -

Lewis Lumber Co. ALR320348, Woodbridge Pit ALR 320449, Waites  
ALR320276, Girl Scout Camp ALR320310, Skelton Pit ALR320378,  
Bain Pit ALR320464, McClellan Pit #1ALR320351, McClellan Pit #2  
ALR320350,  
Ken Owens Pit ALR320360, Fowler Pit ALR320385, Umber Pit  
ALR320391, Sharpe Pit ALR320427, Hugley Pit ALR320423,  
Tuscaloosa ALG020047

ADEM NPDES Permits (Asphalt Plants)

Tuscaloosa ALG020047, Tuscaloosa ALG020220,  
Demopolis ALG020079, Epes ALG020072,  
Eutaw ALG020045, Fayette ALG020046,  
Guin ALG020165, Winfield ALG020159

**IX. PROPOSED ACTIVITY TO BE CONDUCTED**

A. Type(s) of activity presently conducted at applicant's existing facility or proposed to be conducted at facility (check all that apply):

<input checked="" type="checkbox"/> Surface mining	<input type="checkbox"/> Underground mining	<input checked="" type="checkbox"/> Quarrying	<input type="checkbox"/> Auger mining	<input type="checkbox"/> Hydraulic mining
<input type="checkbox"/> Within-bank mining	<input type="checkbox"/> Solution mining	<input checked="" type="checkbox"/> Mineral storing	<input type="checkbox"/> Lime production	<input type="checkbox"/> Cement production
<input type="checkbox"/> Synthetic fuel production	<input type="checkbox"/> Alternative fuels operation	<input checked="" type="checkbox"/> Mineral dry processing (crushing & screening)	<input type="checkbox"/> Mineral wet preparation	
<input type="checkbox"/> Other beneficiation & manufacturing operations		<input checked="" type="checkbox"/> Mineral loading	<input type="checkbox"/> Chemical processing or leaching	
<input checked="" type="checkbox"/> Grading, clearing, grubbing, etc.		<input type="checkbox"/> Pre-construction ponded water removal	<input checked="" type="checkbox"/> Excavation	
<input checked="" type="checkbox"/> Pre-mining logging or land clearing		<input type="checkbox"/> Waterbody relocation or other alteration	<input type="checkbox"/> Creek/stream crossings	
<input type="checkbox"/> Construction related temporary borrow pits/areas		<input checked="" type="checkbox"/> Mineral transportation: <input type="checkbox"/> rail <input type="checkbox"/> barge <input checked="" type="checkbox"/> truck		
<input type="checkbox"/> Preparation plant waste recovery		<input type="checkbox"/> Hydraulic mining, dredging, instream or between stream-bank mining		
<input checked="" type="checkbox"/> Onsite construction debris or equipment storage/disposal		<input checked="" type="checkbox"/> Onsite mining debris or equipment storage/disposal		
<input type="checkbox"/> Reclamation of disturbed areas		<input type="checkbox"/> Chemicals used in process or wastewater treatment (coagulant, biocide, etc.)		
<input type="checkbox"/> Adjacent/associated asphalt/concrete plant(s)		<input type="checkbox"/> Low volume sewage treatment package plant		
<input type="checkbox"/> Other (Please describe):				

B. Primary SIC Code: 1429 NAICS Code: \_\_\_\_\_ Description: Crushed and broken stone  
 Secondary SIC Code: \_\_\_\_\_ NAICS Code: \_\_\_\_\_ Description: \_\_\_\_\_

C. Narrative Description of the Activity:  
 Quarrying, crushing, and sizing of sandstone for commercial use.

**X. FUEL – CHEMICAL HANDLING, STORAGE & SPILL PREVENTION CONTROL & COUNTERMEASURES (SPCC) PLAN**

A. Will fuels, chemicals, compounds, or liquid waste be used or stored onsite?  Yes  No

B. If "Yes," identify the fuel, chemicals, compounds, or liquid waste and indicate the volume of each:

Volume (gallons)	Contents	Volume (gallons)	Contents	Volume (gallons)	Contents
1,000	Diesel Fuel				
275	Various Oil				

C. If "Yes", a detailed SPCC Plan with acceptable format and content, including diagrams, must be attached to application in accordance with ADEM Admin. Code R. 335-6-6- 12(r). Unless waived in writing by the Department on a programmatic, categorical, or individual compound/chemical basis, Material Safety Data Sheets (MSDS) for chemicals/compounds used or proposed to be used at the facility must be included in the SPCC Plan submittal.

**XI. POLLUTION ABATEMENT & PREVENTION (PAP) PLAN**

A. For non-coal mining facilities, a PAP Plan in accordance with ADEM Admin. Code r. 335-6-9-.03 has been completed and is attached as part of this application.  Yes  No

B. For coal mining facilities, a detailed PAP Plan has been submitted to ASMC according to submittal procedures for ASMC regulated facilities.  Yes  No

(1) If "Yes" to Part XI.B., provide the date that the PAP Plan was submitted to ASMC: \_\_\_\_\_

(2) If "No" to Part XI.B., provide the anticipated date that the PAP Plan will be submitted to ASMC: \_\_\_\_\_

**XII. ASMC REGULATED ENTITIES**

A. Is this coal mining operation regulated by ASMC?  Yes  No

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 are 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 intake and 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
- (j) High-tension power lines and railroad tracks
- (l) 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
- (b) If noncoal, detailed, planned mining progression
- (c) If noncoal, location of topsoil storage areas
- (d) Location of ASMC bonded increments (if applicable)
- (e) Location of mining or pond cleanout waste storage/disposal areas
- (f) Other information relevant to facility or operation
- (g) Location of facility sign showing Permittee name, facility name, and NPDES Number

**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); latitude and longitude (to seconds) of location(s) of each discharge point; distance of receiving water from the discharge point; number of disturbed acres; the number of drainage acres which will drain through each outfall; and if the outfall discharges to an ADEM listed CWA Section 303(d) waterbody segment or is included in a TMDL at the time of application submittal.

Action	Outfall E/P	Receiving Water	Latitude	Longitude	Distance to Rec. Water (ft)	Disturbed Area (acres)	Drainage Area (acres)	ADEM WUC	303(d) Segment (Y/N)	TMDL Segment* (Y/N)
Reissue	001E	Cedar Creek	33° 39' 28"	87° 34' 09"	100'	93	105	F&W	N	N
Reissue	002P	UT to Cedar Creek	33° 39' 42"	87° 34' 29"	Directly	3	102	F&W	N	N
Reissue	003P	Cedar Creek	33° 39' 43"	87° 34' 48"	200'	0	9	F&W	N	N
Reissue	004P	Little Cedar Creek	33° 39' 58"	87° 35' 05"	1,200'	0	45	F&W	N	N
Reissue	005P	UT to Cedar Creek	33° 39' 59"	87° 35' 34"	800'	0	40	F&W	N	N

\*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); (2) Monitoring results for the pollutant(s) of concern which have not previously been submitted to the Department including sample collection dates, analytical results in mass and concentration, methods utilized, and RL and MDL; (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.

**XVI. DISCHARGE CHARACTERIZATION**

**A. EPA Form 2C, EPA Form 2D, and/or ADEM Form 567 Submittal**

- Yes, pursuant to 40 CFR 122.21, the applicant requests a waiver for completion of EPA Form 2C, EPA Form 2D, and ADEM Form 567 and certifies that the operating facility will discharge treated stormwater only; that chemical/compound additives are not used (unless waived in writing by the Department on a programmatic, categorical, or individual compound/chemical basis); that there are no process, manufacturing, or other industrial operations or wastewaters, including but not limited to lime or cement production and synfuel operations; and that coal and coal products are not mined nor stored onsite.
- No, the applicant does not request a waiver and a complete EPA Form 2C, EPA Form 2D, and/or ADEM Form 567 is attached.

**B. The applicant is required to supply the following information separately for every proposed or existing outfall. (Attach extra sheets if necessary.) 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; average pH in standard units; and average daily discharges in pounds per day of BOD<sub>5</sub>, Total Suspended Solids, Total Iron, Total Manganese, and Total Aluminum (if bauxite or bauxitic clay or if otherwise believed present):**

Outfall E/P	Information Source - # of Samples	Flow (cfs)	Flow (gpd)	Frequency (hours/day)	Frequency (days/month)	Sum/Winter Temp. (°C)	pH (s.u.)	BOD <sub>5</sub> (lbs/day)	TSS (lbs/day)	Tot Fe (lbs/day)	Tot Mn (lbs/day)	Tot Al (lbs/day)
001E	31 samples	0.095	61k	Precipitation	Precipitation	26/7	7.27	N/A	4.06	N/A	N/A	N/A
002P	BPE	0.092	59k	Precipitation	Precipitation	26/7	7.5	N/A	9.9	N/A	N/A	N/A
003P	BPE	0.008	5k	Precipitation	Precipitation	26/7	7.5	N/A	0.9	N/A	N/A	N/A
004P	BPE	0.041	26k	Precipitation	Precipitation	26/7	7.5	N/A	4.4	N/A	N/A	N/A
005P	BPE	0.036	23k	Precipitation	Precipitation	26/7	7.5	N/A	3.9	N/A	N/A	N/A

**C. The applicant is required to supply the following information separately for every proposed or existing outfall. (Attach extra sheets if necessary.) Identify and list expected average daily discharge of any other pollutant(s) listed in EPA Form 2C Tables A, B, C, D, and E that are not referenced in Part XVI.B. or otherwise submitted elsewhere, that you know is present or have reason to believe could be present in the discharge(s) at levels of concern:**

Outfall E/P	Reason Believed Present	Information Source - # of Samples								
			lbs/day	mg/L	lbs/day	mg/L	lbs/day	mg/L	lbs/day	mg/L
	None									



**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
001E	Pipe	8, 9 & 10	X			X	
002P	Pipe and/or Channel	8, 9 & 10	X			X	
003P	Pipe and/or Channel	8, 9 & 10	X			X	
004P	Pipe and/or Channel	8, 9 & 10	X			X	
005P	Pipe and/or Channel	8, 9 & 10	X			X	

Origin of Pollutants – typical examples: (1) Discharge of drainage from the underground workings of an underground coal mine, (2) Discharge of drainage from a coal surface mine, (3) Discharge of drainage from a coal preparation plant and associated areas, (4) Discharge of process wastewater from a gravel-washing plant, (5) Discharge of wastewater from an existing source coal preparation plant, (6) Discharge of drainage from a sand and gravel pit, (7) Pumped discharge from a limestone quarry, (8) Controlled surface mine drainage (pumped or siphoned), (9) Discharge of drainage from mine reclamation, (10) **Other** (please describe):

Runoff from sandstone crushing &

**XVIII. COOLING WATER**

A. Does your facility use cooling water?  Yes  No

B. If “Yes,” identify the source of the cooling water:

**XIX. VARIANCE REQUEST**

A. Do you intend to request or renew one or more of the CWA technology variances authorized at 40 CFR 122.21(m)?  Yes  No

B. If “Yes,” select all that apply:

Fundamentally different factors (CWA Section 301(n))

Water quality related effluent limitations (CWA Section 302(b)(2))

Non-conventional pollutants (CWA Section 301(c) and (g))

Thermal discharges (CWA Section 316(a))

**XX. PROPOSED NEW OR INCREASED DISCHARGES**

A. Pursuant to ADEM Admin. Code ch. 335-6-10-.12(9), responses to the following questions must be provided by the applicant requesting NPDES permit coverage for new or expanded discharges of pollutant(s) to Tier 2 waters (except discharges eligible for coverage under general permits). As part of the permit application review process, the Department is required to consider, based on the applicant's demonstration, whether the proposed new or increased discharge to Tier 2 waters is necessary for important economic or social development in the area in which the waters 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.

B. If "Yes," complete Items 1 through 6 of this Part (XIII B.), ADEM Form 311-Alternative Analysis, and either ADEM Form 312 or ADEM Form 313-Calculation of Total Annualized Project Costs (Public-Sector or Private-Sector, whichever is applicable). ADEM Form 312 or ADEM Form 313, whichever is applicable, should be completed for each technically feasible alternative evaluated on ADEM Form 311. ADEM Forms can be found on the Department's website at [www.adem.alabama.gov/DeptForms](http://www.adem.alabama.gov/DeptForms). **Attach additional sheets/documentation and supporting information as needed.**

(1) What environmental or public health problem will the discharge be correcting?

(2) How much will the discharger be increasing employment (at its existing facility or as a result of locating a new facility)?

(3) How much reduction in employment will the discharger be avoiding?

(4) How much additional state or local taxes will the discharger be paying?

(5) What public service to the community will the discharger be providing?

(6) What economic or social benefit will the discharger be providing to the community?

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

Yes	No	N/A	Outfall(s):	All Outfalls
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1.	Runoff from all areas of disturbance is controlled
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	2.	Drainage from pit area, stockpiles, and spoil areas directed to a sedimentation pond
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	3.	Sedimentation basin at least 0.25 acre/feet for every acre of disturbed drainage
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	4.	Sedimentation basin cleaned out when sediment accumulation is 60% of design capacity
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	5.	Trees, boulders, and other obstructions removed from pond during initial construction
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	6.	Width of top of dam greater than 12'
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	7.	Side slopes of dam no steeper than 3:1
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	8.	Cutoff trench at least 8' wide
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	9.	Side slopes of cutoff trench no less than 1:1
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	10.	Cutoff trench located along the centerline of the dam
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	11.	Cutoff trench extends at least 2' into bedrock or impervious soil
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	12.	Cutoff trench filled with impervious material
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	13.	Embankments and cutoff trench 95% compaction standard proctor ASTM
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	14.	Embankment free of roots, tree debris, stones >6" diameter, etc.
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	15.	Embankment constructed in lifts no greater than 12"
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	16.	Spillpipe sized to carry peak flow from a one year storm event
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	17.	Spillpipe will not chemically react with effluent
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	18.	Subsurface withdrawal
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	19.	Anti-seep collars extend radially at least 2' from each joint in spillpipe
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	20.	Splashpad at the end of the spillpipe
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	21.	Emergency Spillway sized for peak flow from 25-yr 24-hr event if discharge not into PWS classified stream
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	22.	Emergency spillway sized for peak flow from 50-yr 24-hr event if discharge is into PWS classified stream
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	23.	Emergency overflow at least 20' long
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	24.	Side slopes of emergency spillway no steeper than 2:1
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	25.	Emergency spillway lined with riprap or concrete
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	26.	Minimum of 1.5' of freeboard between normal overflow and emergency overflow
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	27.	Minimum of 1.5' of freeboard between max. design flow of emergency spillway and top of dam
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	28.	All emergency overflows are sized to handle entire drainage area for ponds in series
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	29.	Dam stabilized with permanent vegetation
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	30.	Sustained grade of haul road <10%
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	31.	Maximum grade of haul road <15% for no more than 300'
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	32.	Outer slopes of haul road no steeper than 2:1
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	33.	Outer slopes of haul road vegetated or otherwise stabilized
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	34.	Detail drawings supplied for all stream crossings
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	35.	Short-Term Stabilization/Grading And Temporary Vegetative Cover Plans
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	36.	Long-Term Stabilization/Grading And Permanent Reclamation or Water Quality Remediation Plans

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

Existing pit areas are used for sediment storage also. Visual compaction with proof rolling. Sediment basin does not discharge to a public water supply. There are no stream crossing at this facility.

**XXII. POLLUTION ABATEMENT & PREVENTION (PAP) PLAN REVIEW CHECKLIST**

Yes	No	N/A	
<b>General Information:</b>			
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	PE Seal with License #
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Name and Address of Operator
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Legal Description of Facility
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Name of Company
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Number of Employees
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Products to be Mined
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Hours of Operation
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Water Supply and Disposition
<b>Maps:</b>			
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Topographic Map including Information from Part XIII (a) – (o) of this Application
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	1" – 500' or Equivalent Facility Map including Information from Part XIV of this Application
<b>Detailed Design Diagrams:</b>			
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Plan Views
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Cross-section Views
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Method of Diverting Runoff to Treatment Basins
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Line Drawing of Water Flow through Facility with Water Balance or Pictorial Description of Water Flow
<b>Narrative of Operations:</b>			
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Raw Materials Defined
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Processes Defined
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Products Defined
<b>Schematic Diagram:</b>			
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Points of Waste Origin
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Collection System
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Disposal System
<b>Post Treatment Quantity and Quality of Effluent:</b>			
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Flow
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Suspended Solids
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Iron Concentration
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	pH
<b>Description of Waste Treatment Facility:</b>			
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Pre-Treatment Measures
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Recovery System
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Expected Life of Treatment Basin
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Measures for Ensuring Access to All Treatment Structures and Related Appurtenances including Outfall Locations
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Schedule of Cleaning and/or Abandonment
<b>Other:</b>			
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Precipitation/Volume Calculations/Diagram Attached
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	BMP Plan for Haul Roads
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Measures for Minimizing Impacts to Adjacent Stream (e.g., Buffer Strips, Berms)
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Measures for Ensuring Appropriate Setbacks are Maintained at All Times
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Methods for Minimizing Nonpoint Source Discharges
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	If Chemical Treatment Used, Methods for Ensuring Appropriate Dosage
<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Facility Closure Plans
<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	PE Rationale(s) For Alternate Standards, Designs or Plans

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

No alternate designs

**XXIII. INFORMATION**

**Contact the Department prior 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 or General NPDES Permit prior to commencement of any land disturbance. Such Individual NPDES Permit 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  
Montgomery, Alabama 36130-1463  
Phone: (334) 271-7823  
Fax: (334) 279-3051  
h2omail@adem.alabama.gov  
adem.alabama.gov

**XXIV. PROFESSIONAL ENGINEER (PE) CERTIFICATION**

A detailed, comprehensive Pollution Abatement & Prevention (PAP) Plan must be prepared, signed, and certified by 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.”

Name (type or print): <u>Robert W. Usher</u>	PE Registration # <u>15917</u>
Title: <u>Senior Civil Engineer</u>	Phone Number <u>(205) 221-0686</u>
Address: <u>P. O. Box 3431 Jasper, AL 35502-3431</u>	
Signature: <u><i>Robert W. Usher</i></u>	Date Signed: <u>4/23/2020</u>



**XXV. RESPONSIBLE OFFICIAL SIGNATURE\***

This application must be signed and initialed 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.

 (initial here)

"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.

 (initial here)

"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.

 (initial here)

"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."

 (initial here)

"I acknowledge my understanding that if coal, coal fines, coal refuse, or other coal related materials are mined, transloaded, processed, etc., that I may be required to obtain a permit from the ASMC.

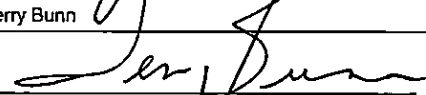
 (initial here)

"I acknowledge my understanding that if non-coal, non-limestone materials are mined, transloaded, processed, etc., that I may be required to obtain a permit from the ADOL.

 (initial here)

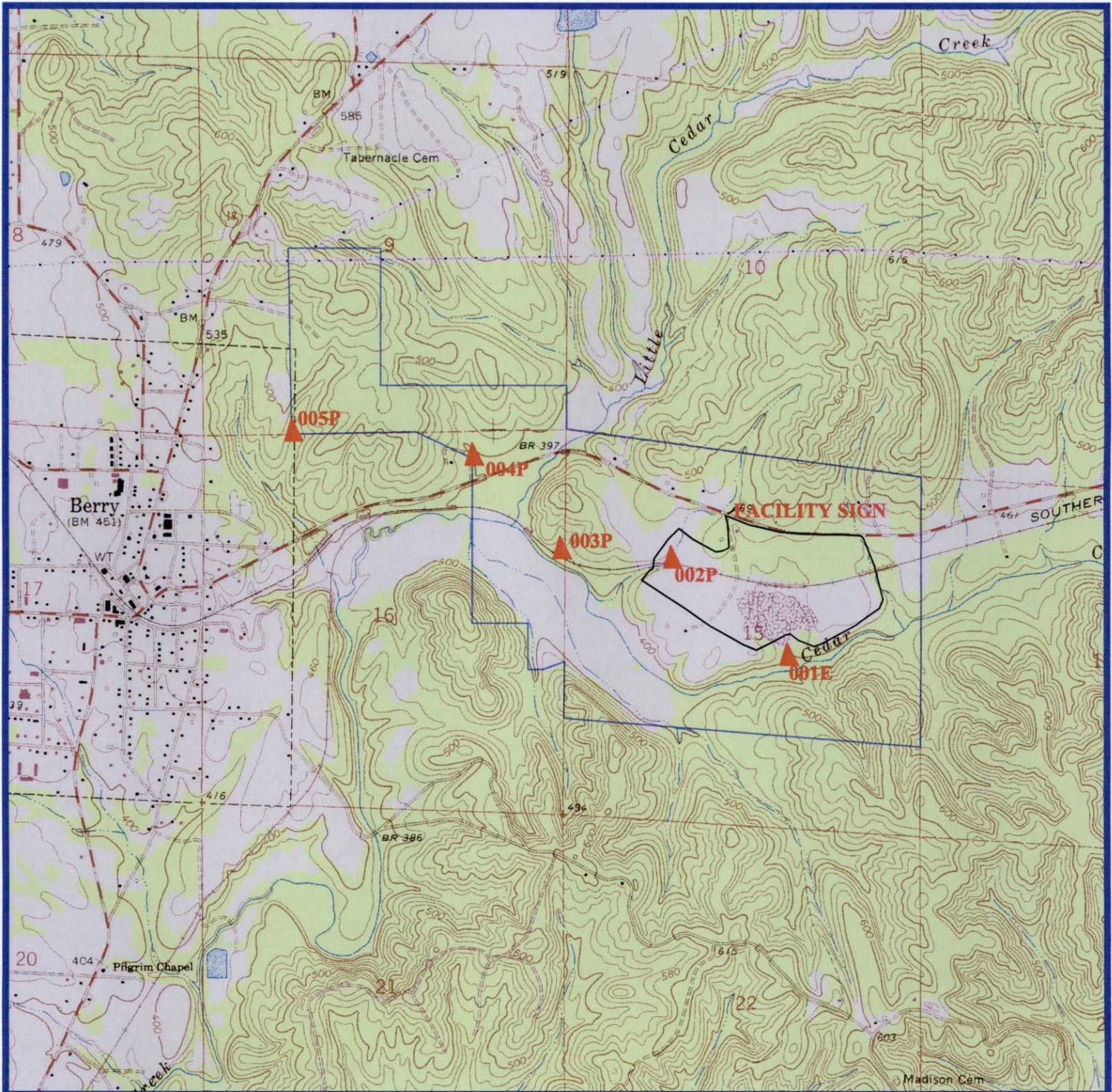
"I acknowledge my understanding that if the proposed activities will be conducted in or potentially impact waters of the state or waters of the US (including wetlands), that I may be required to obtain a permit from the USACE."

 (initial here)

Name (type or print): Terry Bunn Official Title: President  
 Signature:  Date Signed: 9/23/2020

**\*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.



SCALE: 1" = 2000'



## BUNN BROTHERS MATERIALS, INC. BERRY SANDSTONE QUARRY NPDES PERMIT MAP

SECTION 9, 15 & 16, TOWNSHIP 16 SOUTH, RANGE 10 WEST  
ALL IN FAYETTE COUNTY, ALABAMA  
ON THE BERRY U.S.G.S. QUAD.



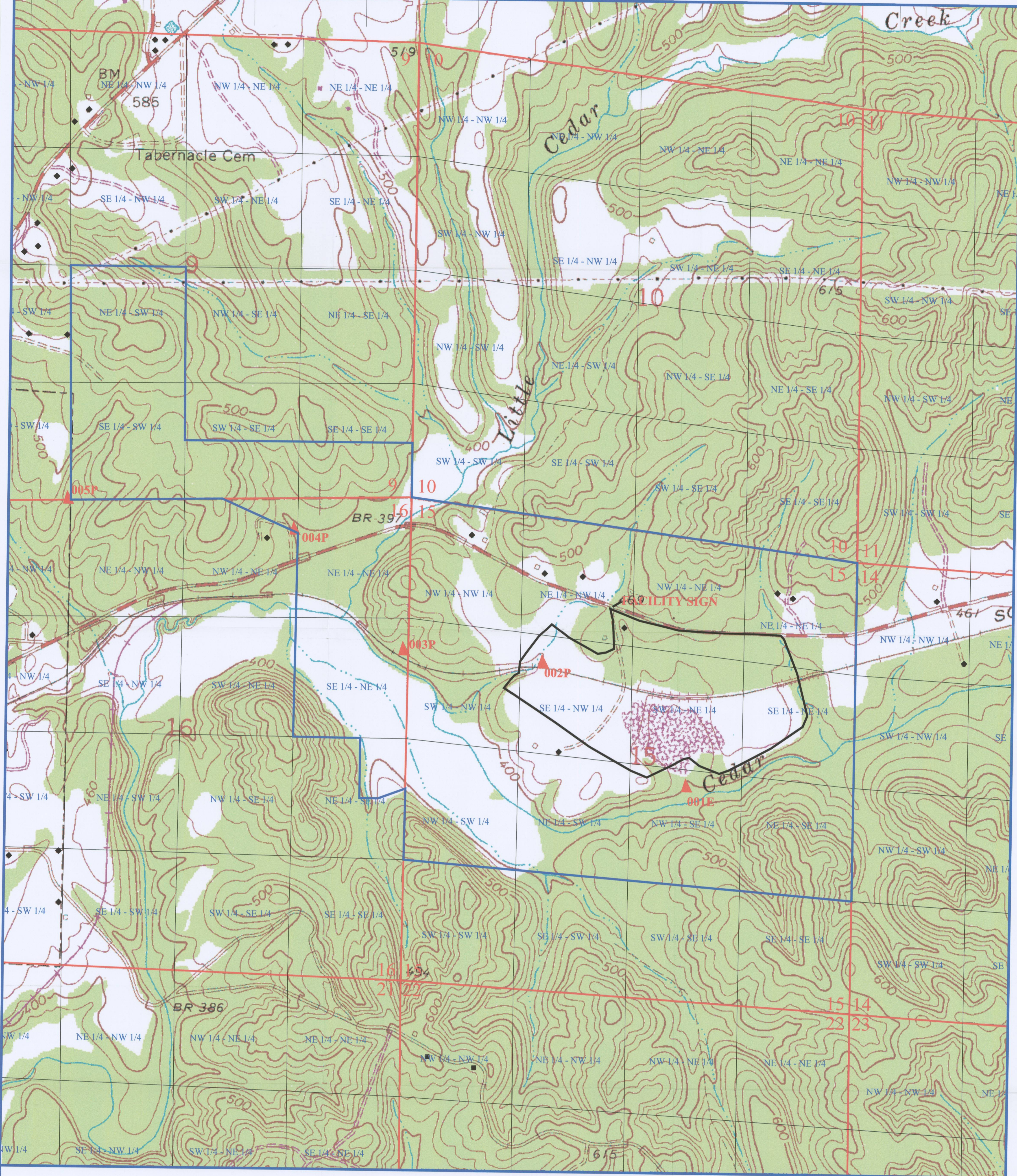
NPDES OUTFALL LOCATION







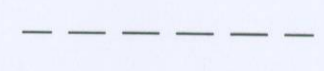
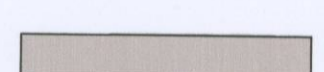
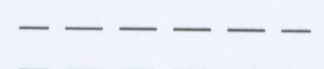


NPDES PERMIT BOUNDARY



DISTURBED AREA



**MAP LEGEND**

-  NPDES PERMIT AREA
-  DRAINAGE DIVIDE
-  DRAINAGE COURSE
-  INTERMITTENT AND/OR PERENNIAL STREAM
-  SURFACE OWNERSHIP DIVIDE OTHER THAN QUARTER/QUARTER LINE
-  PUBLIC ROAD
-  PRIVATE ROAD
-  OCCUPIED DWELLING
-  UNOCCUPIED BUILDING/BARN, SHED, ETC.



CONTOUR INTERVAL: 10 FT.

SECTION 9, 15 & 16,  
TOWNSHIP 16 SOUTH, RANGE 10 WEST,  
FAYETTE COUNTY, ALABAMA  
BASE MAP: GOLD MINE U.S.G.S. QUAD.

**BUNN BROTHERS  
MATERIALS, INC.**

BERRY SANDSTONE QUARRY

NPDES PERMIT MAP

FILE: BUNN BROS.	SCALE: 1" = 500'	JOB NO: N/A
APPROVED BY: C.W.M.	DATE: 04/30/2020	SHEET NO: 1 OF 1



post office box 3431  
jasper, alabama 35502-3431  
telephone: (205) 221-0686 fax: 221-7721  
email: cw@mcgehee.org





## SPILL PREVENTION, CONTROL, AND COUNTERMEASURES (SPCC) PLAN

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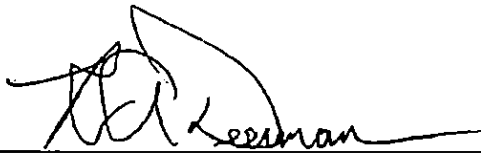
Prepared for  
Berry Site  
Bunn Brothers Materials, Inc.  
1904 University Blvd.  
Tuscaloosa, AL 35401



## Engineer's Certification

---

I certify that I am a Professional Engineer in the State of Alabama, that I prepared and reviewed this Plan, that I am familiar with the requirements of 40 CFR 112, that the Plan has been prepared in accordance with good engineering practice, that procedures for required inspections and testing have been established, and that the Plan is adequate for the facility.



---

R. A. Deerman, PE 16938

June 12, 2018

---

Date



## Management Approval

---

This SPCC Plan has the full approval of management at a level of authority to commit the necessary resources for its full implementation.

\_\_\_\_\_  
Name, Title

\_\_\_\_\_  
Date

This SPCC Plan will be amended whenever there is a change in the facility design, construction, operation or maintenance that materially affects the facility's potential for a discharge of oil into or upon navigable water. Examples of changes that might require amendment of this SPCC Plan include, but are not limited to, commissioning or decommissioning of oil storage containers; reconstruction, replacement, or movement of oil storage containers; reconstruction, replacement, or installation of oil-containing piping; construction or demolition that alters secondary containment structures; changes of product or service; or revision of standard operation or maintenance procedures related to oil handling or oil storage.

This SPCC Plan will also be amended, if necessary, after the facility's management conducts its review and evaluation. The review and evaluation will be conducted at least once every five years. The amended SPCC Plan will incorporate more effective prevention and control technology

Amendments will take place within six months of any facility change or the review by the facility's management. Any technical amendment to this SPCC Plan must be certified by a licensed Professional Engineer.

The review and evaluation by the facility's management must be documented whether or not this SPCC Plan is amended.

By my signature below, I document that the facility's management has completed a review and evaluation of this SPCC Plan and have noted if this SPCC Plan will or will not be amended as a result.

\_\_\_\_\_  
Signature

\_\_\_\_\_  
Date

Yes       No  
Amendments

---

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## **1. Introduction**

---

### **1.1. Location**

The Bunn Brothers Materials, Inc. Berry Quarry is located in Fayette County east of Berry. The front gate is at approximately 33.663371°N and 87.572004°W. Figure 1-1 shows the location on an excerpt from the Berry USGS topographical map.

### **1.2. General Applicability**

Title 40, Part 112 of the Code of Federal Regulations (40 CFR 112), requires the preparation and implementation of a Spill Prevention Control and Countermeasure (SPCC) Plan for any non-transportation-related facility, which due to its location, could reasonably be expected to discharge oil into or upon the navigable waters of the United States in quantities that may be harmful (as defined in 40 CFR 110) and that has the capacity to store oil in volumes greater than:

- 1,320 gallons in total aboveground storage (counting only containers with an oil storage capacity of 55 gallons or more and including equipment containing oil for ancillary purposes) or
- 42,000 gallons in total completely buried storage (not counting completely buried containers that are currently subject to all of the technical requirements of 40 CFR 280 or all of the technical requirements of a State program approved under 40 CFR 281).

Bunn Brothers Materials' Berry facility does not have an aboveground oil storage capacity of greater than 1,320 gallons.

### **1.3. Definitions**

As a requirement of the Oil Pollution Act of 1990, any SPCC-regulated facility that could cause "substantial harm" to the environment as a result of a discharge of oil, is required to prepare and implement a Facility Response Plan in accordance with 40 CFR § 112, Subpart D. The "Flowchart of Criteria for Substantial Harm", shown as Figure 1-2, shows that the facility does not pose a substantial harm to the environment and, therefore, is not required to prepare and implement a Facility Response Plan.

In 40 CFR § 112.2, the definition of "oil" means oil of any kind and any form, including, but not limited to: fats, oils or greases of animal, fish or marine mammal origin; vegetable oils, including oils from seeds, nuts, fruits or kernels; and other oils and greases, including petroleum, fuel oil, sludge, synthetic oils, mineral oils, oil refuse or oil mixed with wastes other than dredged spoil.

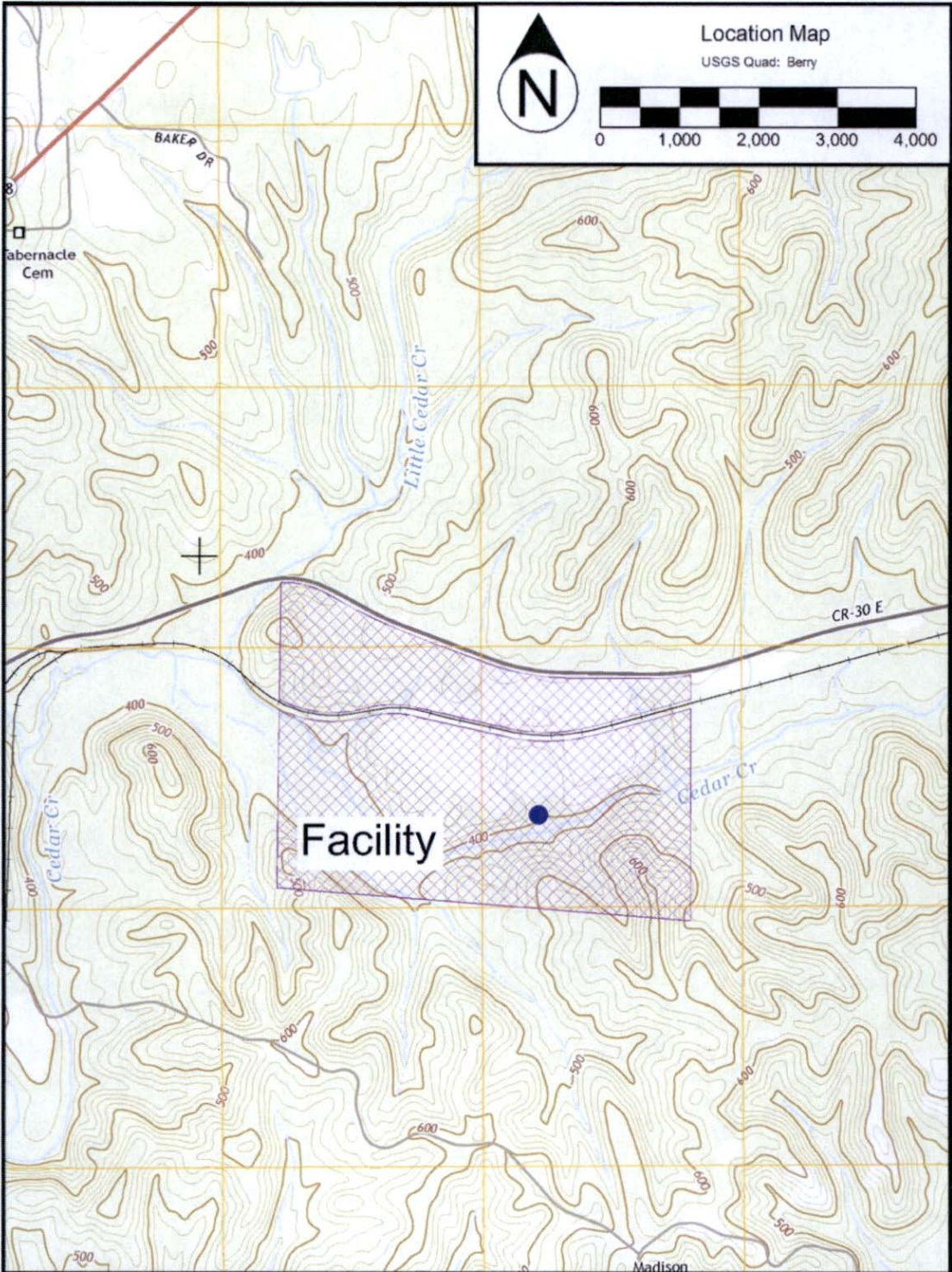


Figure 1-1. Location Map.

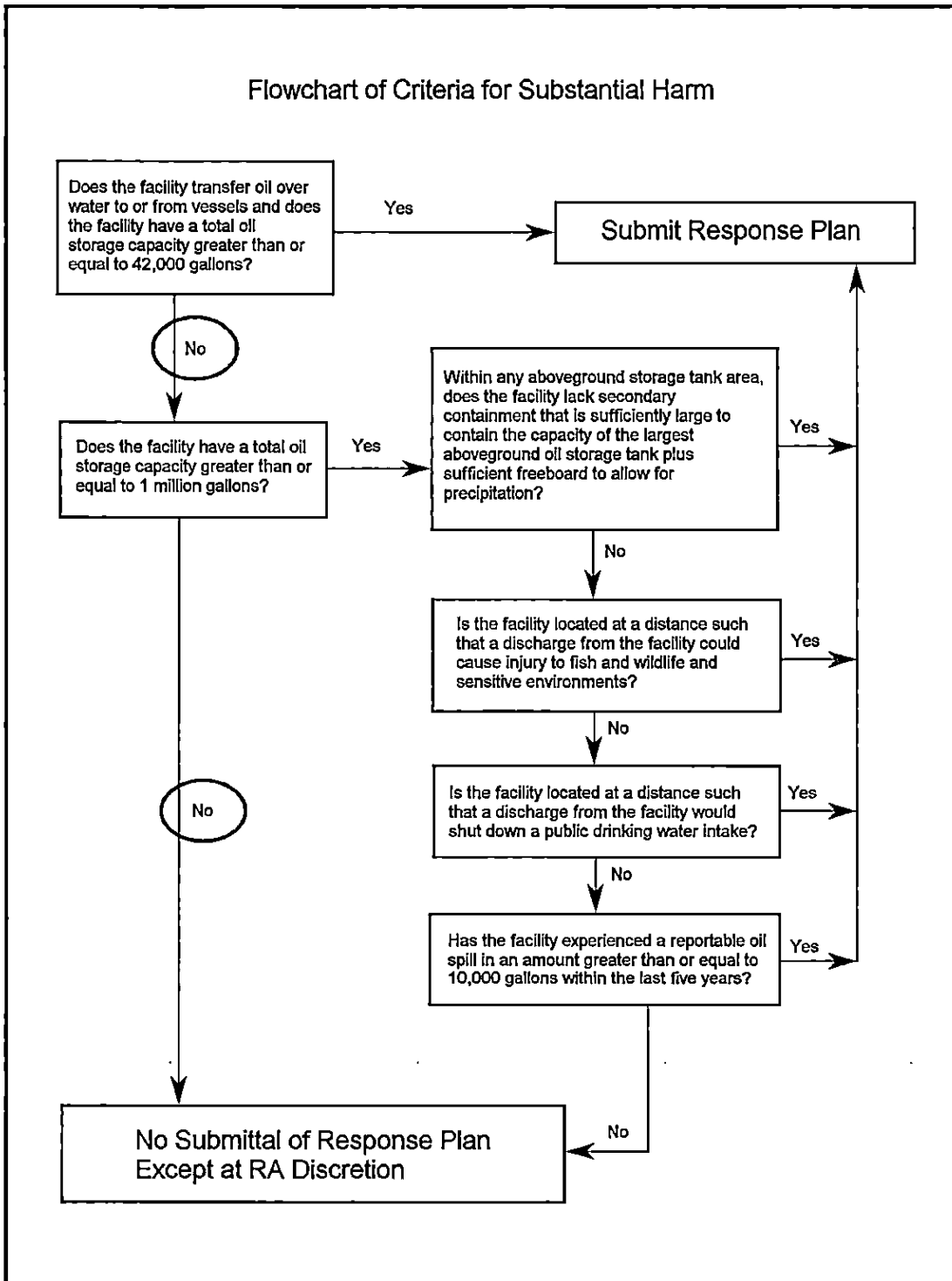


Figure 1-2. Flowchart of Criteria for Substantial Harm.

#### **1.4. Purpose**

The purpose of this document is to serve as the Spill Prevention Control and Countermeasures (SPCC) Plan for Bunn Brothers Materials, Inc. at its Berry facility. A complete copy of this SPCC Plan is to be kept and available to regulatory agencies for onsite review during normal working hours (facilities attended at least 4 hours a day) in accordance with 40 CFR 112.3(e).



## **2. Requirements**

---

### **2.1. Facility Owner, Address, and Telephone**

#### **Contact and SPCC Coordinator:**

Barry Snyder, Environmental Coordinator  
(205) 752-8195 Office; (205) 454-2745 Cell

#### **Physical Address:**

Berry Quarry  
Fayette County Road 30  
Berry, AL

#### **Mailing Address:**

Bunn Brothers Materials, Inc.  
1904 University Blvd.  
Tuscaloosa, AL 35401

### **2.2. Facility Operations**

The Berry Sandstone Quarry of Bunn Brothers Materials, Inc. quarries, crushes, and sizes sandstone for commercial use.

### **2.3. Oil Storage**

The facility will have either no oil storage area or it will have only a single proposed oil storage site, as shown on Figure 2-1:

- 1) Fueling Area.
  - a. Tanks. When operating, there may be one steel aboveground diesel tank that will not exceed 1,000 gallons and up to five 55-gallon drums containing various oils.
  - b. Containment. The tank will be a portable double walled storage tank.
  - c. Release Potential. If a release occurred, from 1 to 1,000 gallons would flow into the quarry making it extremely unlikely that any oil would reach Cedar Creek.



Figure 2-1. Site Map.

## 2.4. Oil Transfer Procedures

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

- Prior to transferring any material into a tank or 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 tank or container, the person transferring the material must continually monitor the transfer process.
- Level gages, 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 tank or container will not be used.
- After transferring, any manholes and valves associated with a storage tank or 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.

## 2.5. Discharge Prevention Measures

All tanks and containers used for storage at this facility are of a material and construction compatible with the material stored and conditions of storage such as pressure and temperature. All tanks are double-walled and inside buildings so there will be no discharge of uncontaminated storm water.

The storage tanks are inspected on a routine basis. Visual inspections include checking the outside of the tanks, supports, gages, valves, fittings, and piping for damage or deterioration.

The requirements to provide corrosion protection for completely or partially buried metallic storage containers are not applicable because there are no buried metallic storage containers at this facility. The requirements to protect buried piping are not

applicable because there is no buried piping at this facility associated with oil storage. Tanks, aboveground piping, and transfer operations are protected from vehicles.

## 2.6. 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 tank, 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 SPCC Coordinator 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 SPCC Coordinator will retain a contractor to clean up and dispose of the discharged material.
- When necessary, the SPCC Coordinator will report the discharge to the appropriate authorities.

## 2.7. Disposal of Recovered Materials

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

## 2.8. Emergency Contact List

Name	Telephone
Barry Snyder, Environmental Coordinator / SPCC Coordinator	(205) 752-8195 (205) 454-2745
National Response Center (NRC)	(800) 424-8802
Alabama Department of Environmental Management (ADEM): Hazardous Materials Emergency	(334) 271-7700
U.S. Environmental Protection Agency (EPA): Regional Administrator	(404) 562-8700

## 2.9. 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.

## 2.10. 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 NRC.

The SPCC Coordinator 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.

## 2.11. Personnel Training

All oil-handling personnel are trained, at a minimum, with regard to the contents of this SPCC 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 are scheduled and conducted for all materials-handling personnel annually to assure adequate understanding of this SPCC Plan. These

briefings, at a minimum, highlight and describe known discharges or failures, malfunctioning components and any recently developed precautionary measures.

Training records are maintained by the facility.

### **2.12. Security**

The tanks are secure and the facility lighting is adequate to assist in the discovery of any discharge occurring during hours of darkness (both by operating personnel and by non-operating personnel, i.e., general public, local police, etc.) and prevention of any discharge occurring through acts of vandalism.

### **3. Contingency Plan**

---

#### **3.1. Introduction**

Instead of providing secondary containment for qualified oil-filled operational equipment, an owner or operator may prepare an oil spill contingency plan and a written commitment of manpower, equipment, and materials to quickly control and remove discharged oil. He must also have an inspection or monitoring program for the equipment to detect a failure and/or discharge. An individual impracticability determination for this equipment is not required.

#### **3.2. Duties**

If Bunn Brothers Materials, Inc. releases oil from its oil-filled equipment at this facility, then Bunn Brothers Materials, Inc. will involve itself in planning and directing oil removal operations described in this Contingency Plan.

#### **3.3. Notification**

In the event of an oil release, follow the notification procedures described in the previous chapter. It is anticipated that the only water of the State impacted will be Cedar Creek, classified for Fish and Wildlife. During notification advise state and federal authorities if a major disaster or other circumstances place the situation outside the response capabilities of Bunn Brothers Materials, Inc.

#### **3.4. Resources**

The largest volume of oil in a piece of oil-filled equipment (a gearbox) contains approximately 20 gallons. Over an unpaved surface, oil would cover an area of 128 square feet (equivalent to a rectangular area, 13 feet by 10 feet) at a depth of 1/4-inch (accounting for puddling and slight infiltration into the surface). If there is no rainfall, it is unlikely that a release from a piece of oil-filled equipment would reach the creek. If there is rainfall, the depth of puddling and infiltration would be reduced but the maximum anticipated release to a water of the State remains negligible.

The resources necessary to contain then remove a spill from oil-filled equipment are primarily small tools and equipment. Oil inside a building should be controlled with temporary barriers (e.g., sandbags or other oil barriers) then collected with small tools (e.g., shovels) and placed inside appropriate containers. Oil absorbents would be used to remove the remaining oil.

Outside, small earthen embankments could be constructed with hand-tools (e.g., shovels) and equipment (e.g., Bobcat). If a spill reaches a water of the State, efforts should be made to remove the oil from the water. The cleanup might include the use of oil-absorbent booms, hay, or other at-hand materials.

### **3.5. Actions**

If a spill occurs from a piece of oil-filled equipment, take steps to control or eliminate the spill if safe to do so. Notify the SPCC Coordinator as soon as possible.

- If safely possible, attempt to stop additional discharge from the piece of oil-filled equipment. Use emergency shut-off if available.
- If safely possible, take actions (including actions listed below) to address any emergency situation. As soon as practicable, contact the SPCC Coordinator 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. Have temporary containment equipment ready; 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 SPCC Coordinator will retain a contractor to clean up and dispose of the discharged material.
- When necessary, the SPCC Coordinator will report the discharge to the appropriate authorities.

Dispose of recovered discharged materials in accordance with applicable legal requirements.

### **3.6. Recovery of Damages**

If a spill reaches a water of the State, then State or local governments might initiate procedures to facilitate recovery of damages and enforcement measures.



## **4. Documentation**

---

### **4.1. Routine Inspections**

Conduct routine (normally, twice per week) inspections of the tanks as described below:

- Check tanks for leaks. Also look for drip marks; discoloration of tanks; puddles containing spilled or leaked material; corrosion; cracks; and localized dead vegetation.
- Check piping for leaks. Also look for droplets of oil; discoloration; corrosion; bowing of pipe between supports; evidence of oil seepage from valves or seals; and localized dead vegetation.
- Check secondary containment for evidence of leaks. Also look for cracks; settling; discoloration; presence of spilled or leaked material (standing liquid); the level of precipitation inside the dike; and valve condition.

Figure 4-1 may be used to document the inspections.

### **4.2. Stormwater Discharges**

If necessary, drain stormwater from secondary containment as follows:

- Examine the surface of the water to be drained.
- All oil must be removed prior to draining (there may be no sheen on the water).
- When the water is free of oil, unlock and open the drain valve.
- Stay at the open valve continuously and monitor the water discharge.
- Close and lock the drain valve when the water is drained.
- Document the date, time, condition of water (presence of oil), and volume of water discharged.

Figure 4-2 may be used to document the stormwater discharges.

### **4.3. Training**

Train all oil-handling personnel, at a minimum, with regard to the contents of this SPCC Plan. Figure 4-3 may be used to document the training.

Figure 4-1. Routine Inspection Documentation.

<b>SPCC Plan Routine Inspections</b>	Inspector Signature																		
	Comments																		
	Second. Contain. Leaks ( Y / N )																		
	Piping Leaks ( Y / N )																		
	Tank Leaks ( Y / N )																		
	Area																		
	Date																		

Figure 4-2. Stormwater Discharge Documentation.

SPCC Plan Stormwater Discharges		Date	Area	Presence of Oil ( Y / N )	Time Started	Time Finished	Water Volume Discharged (gallons)	Discharger Signature

Figure 4-3. Training Documentation.

SPCC Plan Training Documentation		
Date	Attendees	Instructor / Supervisor Signature



## BEST MANAGEMENT PRACTICES (BMP) PLAN

---

Prepared for  
Berry Site  
Bunn Brothers Materials, Inc.  
1904 University Blvd.  
Tuscaloosa, AL 35401



**Certifications**

I certify that this report was prepared by me, or an agent under my direct supervision, and that I am a Professional Engineer in the State of Alabama.



R. A. Deerman, PE 16938

June 12, 2018

Date



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.

Signature

Date

Name, Title (Print)

---

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## **1. Introduction**

---

### **1.1. Location**

The Bunn Brothers Materials, Inc. Berry Quarry is located in Fayette County east of Berry. The front gate is at approximately 33.663371°N and 87.572004°W. Figure 1-1 shows the location on an excerpt from the Berry USGS topographical map.

### **1.2. Background**

In response to the Water Quality Act of 1987, the 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. BMP's 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. BMP's 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.

### **1.3. Purpose**

In accordance with the terms and conditions of its permit, Bunn Brothers Materials, Inc. is required to prepare and implement a Best Management Practices (BMP) Plan. A copy of the BMP Plan must be maintained at the facility and be available for inspection by representatives of the Department of Environmental Management.



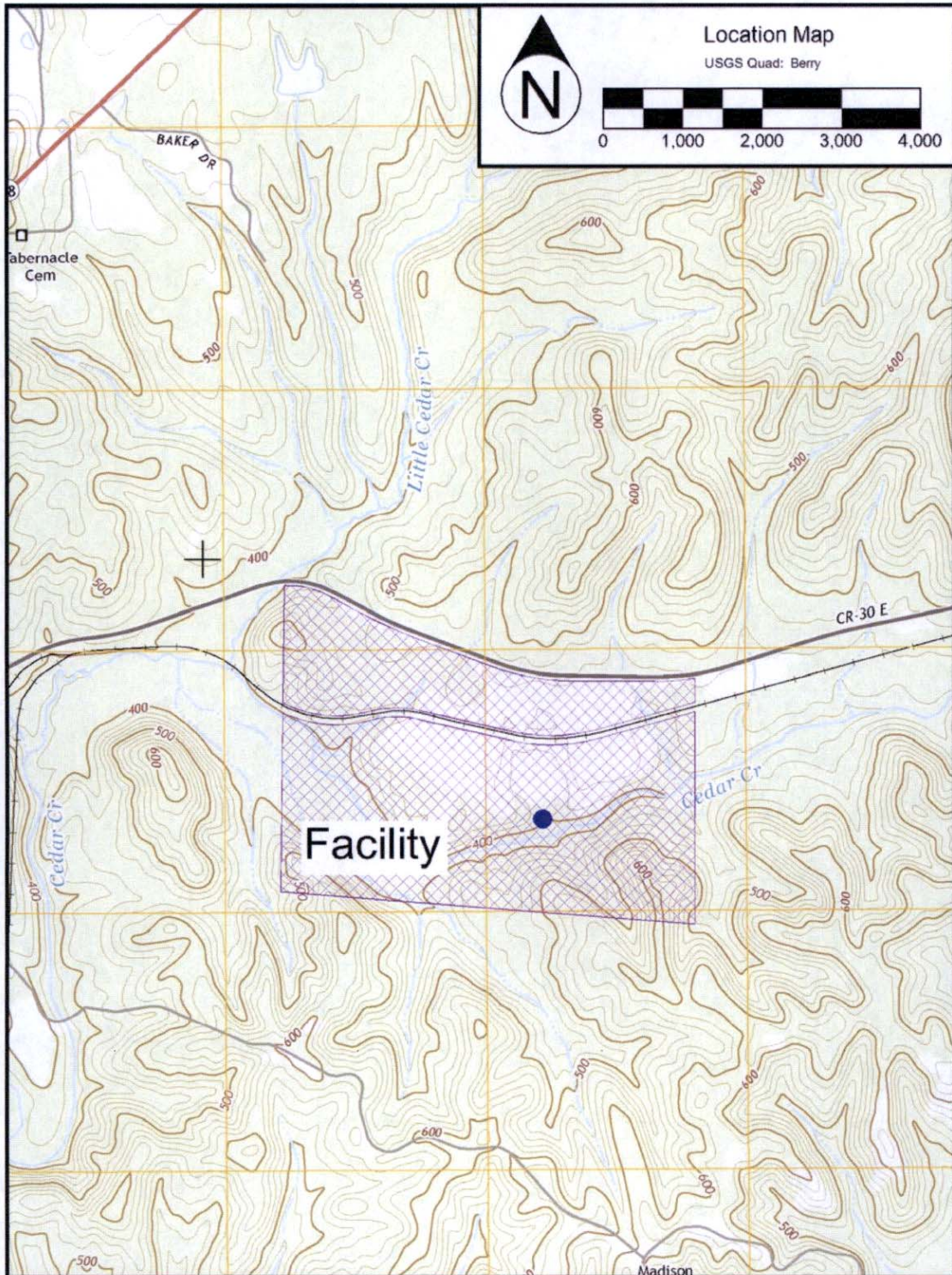


Figure 1-1. Location Map.

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## **2. Pollution Abatement and Prevention Plan**

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### **2.1. Introduction**

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".

### **2.2. 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.

The operator is Bunn Brothers Materials, Inc. and the mailing address is as follows:

Bunn Brothers Materials, Inc.  
1904 University Blvd.  
Tuscaloosa, AL 35401

The telephone number for the contact at Bunn Brothers Materials, Inc. is (205) 752-8195 and the contact person is Mr. Barry Snyder, Environmental Coordinator. The quarry is in Fayette County, Alabama in Sections 9, 15, and 16, in Township 16S and Range 10W.

### **2.3. 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.

The operator is Bunn Brothers Materials, Inc. There is no parent corporation or subsidiary corporation. There are approximately 8 employees associated with the operation. Operations are potentially 24 hours per day, 7 days per week. The Berry Sandstone Quarry of Bunn Brothers Materials, Inc. quarries, crushes, and sizes sandstone for commercial use. Stormwater runoff enters the quarries and some groundwater seeps into the quarries through the quarry walls. Most of the water collected in the quarries is then treated and discharged at a permitted outfall. Potable water, from the Town of Berry, is used for drinking and sanitary facilities.

### **2.4. Topographic Map**

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

Figure 1-1 is a topographic map which shows the location of the operation and the water discharge point. Figure 2-1 is a site map showing drainage patterns.

## 2.5. 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.

## 2.6. Operations

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

The Berry Sandstone Quarry of Bunn Brothers Materials, Inc. quarries, crushes, and sizes sandstone for commercial use. Heavy equipment, along with blasting, is used to quarry the stone.

Waste products generated as a result of the quarrying operation are sediments from disturbed areas, transported by rainfall runoff or pumped discharges. The sediments originate from the quarry, spoil areas, or other disturbed areas. The sediments are transported by rainfall runoff or by pumping to the sedimentation pond. The sediments are captured by detaining the water in the sedimentation pond. When necessary, the accumulated sediments are removed from the sedimentation pond.

## 2.7. 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 this factor, the average daily flows will be 204,000 gallons per day (gpd) from the outfall. Discharged water will comply with permit limits with regard to suspended solids and pH.

## 2.8. 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, especially the sedimentation ponds. Surface runoff first enters the quarry where the quarry itself serves as the Quarry Pond providing sediment storage and storage capacity to completely contain the surface runoff from the 25-yr/24-hr rainfall event. Water from the quarry is then pumped to Pond 001 for final polishing prior to discharge. The expected life of the sedimentation basins is the life of the quarry and each sedimentation basin is scheduled to be cleaned out when sediment accumulation is 60% of design capacity. The ponds will be maintained for the life of the permit.

## 2.9. 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:

- 1) No sustained grade will exceed 10 percent;
- 2) 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 1000 feet of road constructed;
- 3) Haul roads within the mining area will be constructed so that runoff from the road is routed to the sedimentation basin;
- 4) 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;
- 5) Roads will be surfaced with either slag, chert, crushed limestone, crushed sandrock, or red rock, other than temporary roads for limited access; and
- 6) There are no stream crossings.

## 2.10. 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 quarrying operation drains to Cedar Creek. No changes to the stream are proposed. The sedimentation controls, especially the sedimentation ponds, are intended to minimize any negative stream impacts.

## 2.11. Non-Point Impact Minimization

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

The surface runoff from areas disturbed by mining drains to sedimentation ponds, i.e. a designated area of the quarry and a polishing pond. Any negative impacts from non-point discharges will be minimized using best management practices.

## 2.12. Watershed Classification

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

The quarry drains directly to Cedar Creek. Cedar Creek is classified as F&W from its source downstream to North River. North River is approximately 7.8 river miles downstream from the quarry. North River is classified as F&W from Cedar Creek to Binnion Creek (a distance of approximately 28.6 river miles). North River (Lake Tuscaloosa) is classified as public water supply and swimming (PWS/S) from Binnion Creek to the Lake Tuscaloosa dam (a distance of approximately 16.4 river miles).

The operation is not in the watershed of a stream that is a direct tributary of an impoundment classified as a public water supply.

### **2.13. 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.



Figure 2-1. Site Map.

### **3. Other BMPs**

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#### **3.1. Introduction**

Applicable excerpts from the *Alabama Handbook for Erosion Control, Sediment Control, and Stormwater Management on Construction Sites and Urban Areas* (Handbook), are included in this chapter. Other portions of the Handbook may be used if found to be useful.

## Groundskeeping (GK)



### Practice Description

Groundskeeping, or “good housekeeping”, describes the various activities and measures, in addition to the specific practices used for erosion and sediment control that are essential during construction for the protection of environmental quality. Groundskeeping is applicable at all construction sites.

### Planning Considerations

In addition to the sediment and erosion control practices included in the Handbook that deal directly with sediment and erosion control, some general groundskeeping practices are essential to the pollution prevention aspect of a Stormwater Pollution Prevention Plan. Groundskeeping addresses these practices. Included in the practice are the following different areas:

- Inspection and Maintenance Procedures
- Materials Inventory
- Spill Prevention and Material Management Practices
- Spill Controls
- Hazardous Products
- Air Emissions (excessive odor)
- Other Good Groundskeeping Practices (i.e. fugitive spray, excessive noise and aesthetics)



## Design Criteria

### *Inspection and Maintenance Procedures*

The following inspection and maintenance procedures need to be followed to maintain adequate sediment and erosion controls:

- All control measures need to be inspected at least once per week and following any accumulation of rainfall of ¼" or more within a 24-hour period. A more frequent inspection interval may be required by either a permitting agency or a permittee.
- All measures need to be maintained in good working order. If a repair is necessary, it should be initiated within 24 hours of report.
- Silt fence and straw bales need to be inspected weekly for proper anchorage and leakage underneath. Silt fencing should also be inspected for tears.
- Built-up sediment needs to be removed from silt barriers when it has reached ½ of the height of the barrier. Sediment needs to be placed in a stabilized site to prevent re-entry into the same site or another entrapment area.
- Sediment basins need to be inspected for depth of sediment on a monthly basis and built up sediment needs to be removed when ½ of the basin volume is filled.
- Temporary and permanent seeding and plantings need to be inspected for bare spots, washouts and unhealthy growth. A person should be designated to be responsible for maintaining planted areas until there is a uniform stand with 85% ground cover and growth has reached 1" in height.

### *Materials Inventory*

A materials list should be compiled for items that will be stored outside on the site during construction. For example:

- \_\_\_\_\_ Pipe, fittings and joint compounds for underground utility piping
- \_\_\_\_\_ Gravel and stone bedding material
- \_\_\_\_\_ Concrete forming materials
- \_\_\_\_\_ Other (specify) \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

*Note: Fuels, oils and other petroleum products; forming oils and compounds; fertilizers; pesticides; strippers; detergents; cleaners; or any other hazardous or toxic compounds should not be stored outside on the site unless specifically agreed upon by all responsible parties, including those persons responsible for enforcing local ordinances and policies. On-site storage should meet all local, state and federal rules regarding secondary containment. Additionally, local ordinances may require fencing and security measures for storage of these products.*

## *Spill Prevention and Material Management Practices*

### *Petroleum Products*

All vehicles kept on the site need to be monitored for leaks and receive regular preventive maintenance to reduce the chance of leakage. A Spill Prevention Control and Countermeasures (SPCC) plan should be developed for the facility to address the safe storage, handling and clean-up of petroleum products and other chemicals. Petroleum products should be stored in tightly sealed containers, which are clearly labeled. If petroleum products are stored on site, a secondary containment facility will be required if the cumulative storage capacity of all tanks, greater than 55 gallons, at the site exceeds 1,320 gallons. Any asphalt substances used on-site should be applied according to the manufacturer's recommendations.

### *Fueling & Servicing*

No fueling, servicing, maintenance, or repair of equipment or machinery should be done within 50 feet of a stream, or within 100 feet of a stream classified for public water supply (PWS) or Outstanding Alabama Water (OAW), or designated as an Outstanding National Resource Water (ONRW), or a sinkhole.

### *Mud Tracking*

A stabilized construction entrance needs to be designated on the plan. The practice Construction Exit Pad provides design details for planning such an entrance.

Only designated entrances should be used for construction access to the site. The General Contractor should be responsible for keeping mud cleaned from adjoining streets on a daily basis if needed.

### *Concrete Trucks*

Concrete trucks should be allowed to wash only in locations where discharge is appropriately treated to meet applicable regulatory requirements. It is not permissible to discharge concrete wash directly to streams or storm drains. Concrete wash can contain sediment, as well as, alkalinity and chemical additives that could be harmful to fish, stream bottom macroinvertebrates and wildlife.

### *Disposal of Oil*

No fuels, oils, lubricants, solvents, or other hazardous materials can be disposed of on the site. All hazardous material must be properly disposed of in accordance with State law.

### *Trash/Solid Waste*

The General Contractor is responsible for disposing of all solid waste from the site in accordance with State law. Dumpsters or other collection facilities must be provided as needed. Solid waste may not be buried on the site.

### *Sanitary Waste*

The General Contractor is responsible for providing sanitary facilities on the site. Sanitary waste may be disposed only in locations having a State permit. Portable toilets should be located so that accidental spills will not discharge into a storm sewer or concentrated flow area.

### *Other Discharges*

Water for pressure testing sanitary sewers, flushing water lines, sand blasting, concrete cleansing, etc., may be discharged only in approved areas. Discharge of hydrostatic test water may require additional permitting, particularly if chlorinated public water is used.

## *Spill Controls*

In addition to the good housekeeping practices and material management practices listed previously, the following procedures need to be followed for spill prevention and clean-up:

- Manufacturer's recommended methods for spill cleanup needs to be clearly posted and site personnel need to be made aware of the procedures and the location of the information and cleanup supplies. Refer to material safety data sheets (Material Safety Data Sheet).
- Material and equipment necessary for spill cleanup needs to be kept in the material storage area on-site. Equipment and materials include, but are not be limited to; brooms, dust pans, mops, rags, gloves, goggles, absorbent clay (kitty litter), sand, sawdust, absorbent mats, and plastic and metal trash containers specifically for this purpose.
- All spills need to be cleaned up immediately after discovery and properly containerized for proper disposal. Burial is not acceptable.
- The spill area must be kept well ventilated and personnel need to wear appropriate protective clothing to prevent injury from contact with a hazardous substance.

- Spills of toxic or hazardous material must be reported immediately to the appropriate state or local government agency, regardless of the size.
- The spill prevention plan needs to be adjusted to include measures to prevent this type of spill from being repeated, and the plan needs to show how to clean up the spill if another one does occur.

#### *Contaminated Soils*

Removal of contaminated soils and underground storage tanks should be based on information provided by the Alabama Department of Environmental Management following a proper site assessment.

#### *Hazardous Products*

- Products must be kept in original containers unless they are not resealable. If product is transferred to a new container, it must be properly marked and labeled.
- Original labels and material safety data sheets should be retained.
- If surplus product must be disposed, disposal must be done in accordance with Alabama Department of Environmental Management regulations.

#### *Air Emissions*

##### *Burning*

Burning on the site may require a permit from the Alabama Forestry Commission. County or city ordinances may also apply. Starting disposal fires with diesel fuel or old tires is not a recommended practice. The use of burn pits with fans to generate hot disposal fires decreases the fire disposal time and minimizes smoke.

##### *Dust Control*

Apply measures that minimize dust. Stabilizing areas with mulch as soon as possible can minimize dust. Watering should be provided in unstabilized areas.

#### *Other Good Groundskeeping Practices*

The following good housekeeping practices also need to be followed during the construction of the project:

- An effort should be made to store only enough products to do the job.
- All materials stored on-site should be stored in a neat, orderly manner in their appropriate containers and, if possible, under a roof or other enclosure.

- Products should be kept in their original containers with the original manufacturer's label.
- Whenever possible, all of a product should be used up before disposing of the container.
- Manufacturer's recommendations for proper use and disposal must be followed (see Material Safety Data Sheet).
- The site superintendent should inspect daily to ensure proper usage, storage and disposal of materials.
- Fertilizers need to be applied only in the minimum amounts recommended by the manufacturer.
- All paint containers need to be tightly sealed and stored when not required for use. Excess paint shall not be dumped into the storm sewer system but should be properly disposed of according to manufacturer's instructions (see Material Safety Data Sheet) and State regulations.
- The site should be kept clean and well groomed (trash picked up regularly, weeds mowed and signs maintained).
- Offsite fugitive spray from dust control, sand blasting and pressure washing must be minimized to the extent possible.
- Locate activities that generate odors and noise as far from surrounding properties as possible (this item includes portable toilets burn sites, fueling areas, equipment repair areas and dumpsters).

## Buffer Zone (BZ)



### Practice Description

A buffer zone is a strip of plants adjacent to land-disturbing sites or bordering streams, lakes, and wetlands which provides streambank stability, reduces scour erosion, reduces storm runoff velocities and filters sediment in stormwater. This practice applies on construction sites and other disturbed areas that can support vegetation and can be particularly effective on floodplains, next to wetlands, along streambanks and on steep, unstable slopes.

### Planning Considerations

The width and plant composition of a buffer zone will determine its effectiveness.

There is no ideal width and plant community for buffer zones. A buffer zone 50 feet wide with desirable vegetation may provide significant protection of a perennial stream, water body or wetland. Adjustments can be made to account for the purpose(s) of the buffer and landscape characteristics.

Three zones are typically recognized in the buffer area. If planned to be 45 to 55 feet wide, the recommended width and plant categories are described in the following listings:

- Zone 1: the first 15 to 20 feet nearest the stream. Cover is close growing trees (commonly 6 to 10 feet apart).
- Zone 2: the next 10 to 15 feet. Cover is trees or trees and shrubs.
- Zone 3: the next 20 feet. Cover is grass or dense groundcover.

*Note: All widths are for one side of the stream only and are measured from top of stream bank.*

Existing vegetation should be considered for retention, especially hardwoods that are in Zones 1 and 2.

Buffer Zone 3 may be established with a grass planting or with close-growing groundcover that will provide dense cover to filter sediment. Where topography accommodates sheet flow from the adjacent landscape, Zone 3 should be retained or developed as a Filter Strip.

Necessary site preparation and planting for establishing new buffers should be done at a time and manner to insure survival and growth of selected species.

Buffer zones may become part of the overall landscape of the project.

The layout and density of the buffer should complement natural features and mimic natural riparian forests.

## **Design Criteria**

### *Installation (Preservation)*

Evaluate vegetation and landscape features in proposed buffer zone to determine potential for existing plant community to maintain streambank stability, prevent sheet, rill and scour erosion, reduce stormwater velocities and filter sediment.

Dedicate a vegetated zone to effectively minimize streambank and shoreline erosion, prevent sheet, rill and scour erosion in the buffer zone and remove sediment from sheet flow from the disturbed area. Initially estimate a width of 50 feet wide adjacent to the stream (each side), water body or wetland. Adjust the width to account for slope of the land adjacent to the stream and the purposes of the buffer. If the buffer is planned to trap sediment in sheet flow the width should be increased 2 feet for every 1% slope measured along a line perpendicular to the streambank and immediately downslope of the disturbed area. If the buffer is not planned to trap sediment and only bank stabilization is the purpose of the buffer only Zones 1 and 2 are required and the adjustment for slope of the adjacent land is not essential.

## *Installation (Plantings)*

### *Width and Zone Requirements*

Use guidance under Installation (Preservation) to determine width and zone requirements.

### *Site Preparation*

Plan appropriate site preparation to provide a suitable planting medium for grass, or trees and shrubs.

Plan to install sediment and erosion control measures such as silt fence and diversions if zones are graded before seedbed preparation.

If significant compaction exists, plan for chiseling or subsoiling.

For Zone 3 plantings, clear area of clods, rocks, etc. that would interfere with seedbed preparation; smooth the area, to encourage sheet flow, before the soil amendments are applied and firm the soil after the soil amendments are applied. Follow guidelines in the Filter Strip practice Design Criteria if Zone 3 is to be used to filter sheet flow from the adjacent construction area.

### *Soil Amendments (lime and fertilizer)*

Plan soil amendments using design criteria for the appropriate category (Permanent Seeding, Tree Planting on Disturbed Areas, and Shrub, Vine and Groundcover Planting). Incorporate amendments to a depth of 4" to 6" with a disk or chisel plow.

### *Plantings*

Plan the vegetation for buffer zones using Design Criteria for Permanent Seeding, Tree Planting on Disturbed Areas, and/or Shrub, Vine and Groundcover Planting. No invasive species shall be used. If trees are planted, at least 2 hardwood species should be used.

### *Mulching*

Plan to mulch shaped areas, and other areas that are bare using the Mulching practice Design Criteria.



## 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.

### Planning Considerations

Preservation of vegetation requires good site management to minimize the impact of construction activities on existing vegetation.

Plants to save should be identified prior to any construction activity.

Proper maintenance, especially during construction, is important to ensure healthy vegetation that can control erosion.

Different species, soil types, and climatic conditions will require different maintenance activities.

## Design Criteria

### *Mark Plant Area for Retention*

Groups of plants and individual trees to be retained should be located on a plan map. Limits of clearing should be planned outside the drip line of groups or individual trees to be saved. The clearing should never be closer than 5 feet to the trunk of a tree.

Flagging or other appropriate means of marking the site of the groups of plants and individual trees to be retained should be required before construction begins. Individual trees to be retained should be marked with a highly visible paint or surveyor's ribbon in a band circling the tree at a height visible to equipment operators.

### *Plant Protection*

Restrict construction equipment, vehicular traffic, stockpiles of construction materials, topsoil etc., from the areas where plants are retained and restrict these activities from occurring within the drip line of any tree to be retained. Trees being removed shall not be pushed into trees to be retained. Equipment operators shall not clean any of their equipment by slamming it against trees to be retained.

Restrict burning of debris within 100 feet of the plants being preserved. Fires shall be limited in size to prevent damage to any nearby trees.

Toxic material shall not be stored any closer than 100 feet to the drip line of any trees to be retained. Toxic materials shall be managed and disposed of according to state laws.

### *Fencing and Armoring*

Groups of plants and trees should be protected by fencing or armoring where necessary (See Figure PV-1). The following types of fencing or armoring may be used:

- Board Fence-Board fence may be constructed with 4" square posts set securely in the ground and protruding at least 4 feet above the ground. A minimum of 2 horizontal boards should be placed between the posts. The fence should be placed at the limits of the clearing around the drip line of the tree. If it is not practical to erect a fence at the drip line, construct a triangular fence near the trunk. The limits of clearing will still be the drip line as the root zone within the drip line will still require protection.
- Cord Fence-Posts at least 2" square or 2" in diameter set securely in the ground and protruding at least 4 feet above the ground shall be placed at the limits of clearing with 2 rows of cord ¼" or thicker at least 2 feet apart running between posts with strips of surveyor's tape tied securely to the string at intervals of 3 feet or less.

- Earth Berms-Temporary earth berms may be constructed. The base of the berm on the tree side should be located along the limits of clearing. Earth berms may not be used for this purpose if their presence will create drainage patterns that cause erosion.
- Additional Trees-Additional trees may be left standing as protection between the trees to be retained and the limits of clearing. However, in order for this alternative to be used, trees in the buffer must be no more than 6 feet apart to prevent passage of equipment and material through the buffer.
- Plan for these additional trees to be evaluated prior to the completion of construction and either given sufficient treatment to ensure survival or be removed.
- Trunk Armoring-As a last resort, a tree may be armored with burlap wrapping and 2" studs wired vertically no more than 2" apart to a height of 5 feet. The armoring should encircle the tree trunk. Nothing should ever be nailed to a tree. The root zone within the drip line will still require protection.
- Fencing and armoring devices should be in place before any construction work is done and should be kept in good condition for the duration of construction activities. Fencing and armoring should not be removed until the completion of the construction project.

### *Raising the Grade*

When the ground level must be raised around an existing tree or group of trees several methods may be used to insure survival.

A well may be created around a group of trees or an individual tree slightly beyond the drip line to retain the natural soil in the area of the feeder roots (see Figure PV-2).

When the well alternative is not practical or desirable, remove vegetation and organic matter from beneath the tree or trees for a distance of 3 feet beyond the drip line and loosen the surface soil to a depth of approximately 3" without damaging the roots.

Apply fertilizer in the root area of the tree to be retained. A soil test is the best way to determine what type of fertilizer to use. In the absence of a soil test, fertilizer should be applied at the rate of 1 to 2 pounds of 10-8-6 or 10-6-4 per inch of diameter at breast height (dbh) for trees under 6" dbh and at the rate of 2 to 4 pounds of 10-8-6 or 10-6-4 per inch of dbh for trees over 6" dbh.

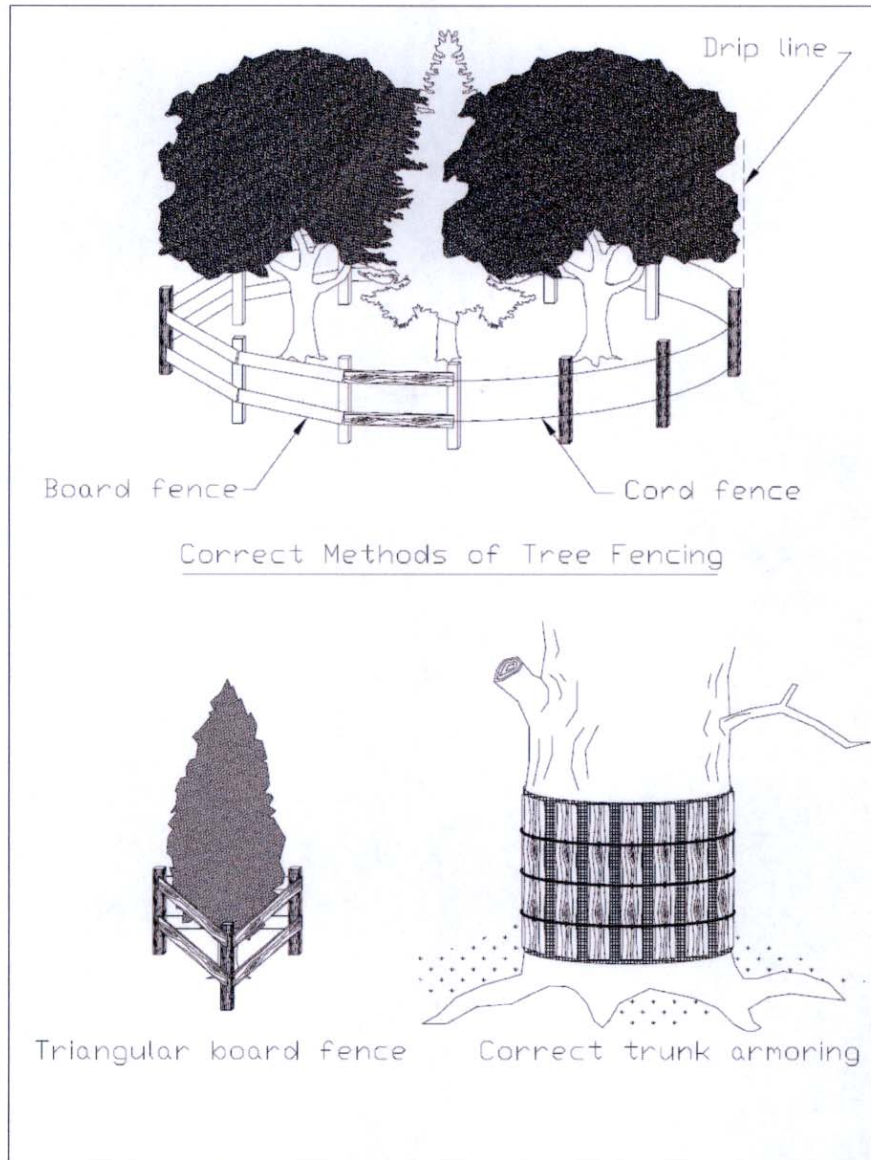


Figure PV-1 Fencing and Armoring

A dry well shall be constructed so as to allow for tree trunk diameter growth (see Figure PV-3). A space of at least 1 foot between the tree trunk and the well wall is adequate for old, slow growing trees. Clearance for younger trees shall be at least 2 feet. The well shall be high enough to bring the top just above the level of the proposed fill. The well wall shall taper slightly away from the tree trunk at a rate of 1" per foot of wall height.

The well wall shall be constructed of large stones, brick, building tile, concrete blocks, or cinder blocks. Openings should be left through the wall of the well to allow for free movement of air and water. Mortar shall only be used near the top of the well and only above the porous fill.

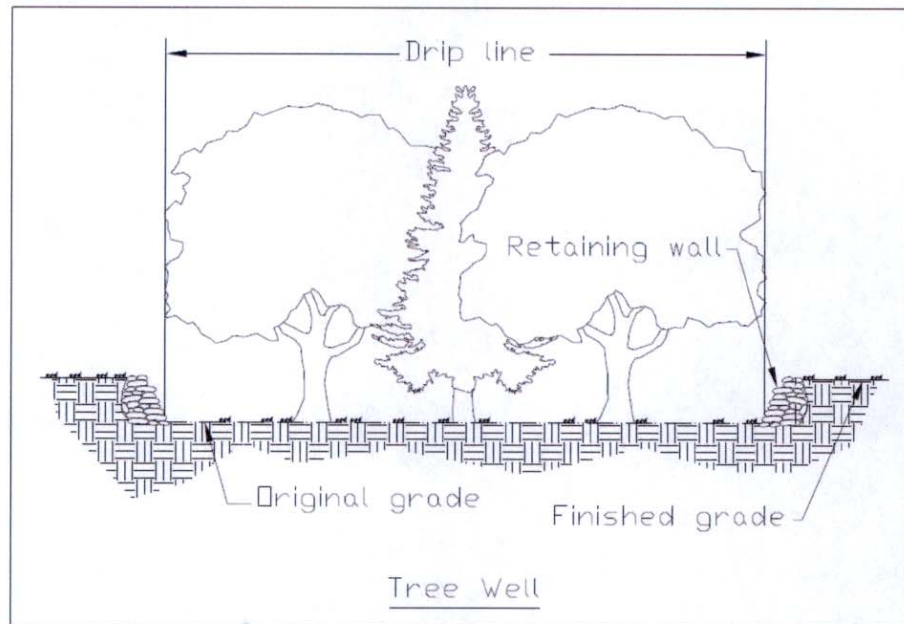


Figure PV-2 Tree Well

Drain lines composed of 4" high quality drain tiles shall begin at the lowest point inside the well and extend outward from the tree trunk in a wheel and spoke pattern with the trunk as the hub. Radial drain lines shall slope away from the well at a rate of  $\frac{1}{8}$ " per foot. The circumference line of tiles should be located beneath the drip line of the trees. Vertical tiles or pipes shall be placed over the intersections of the two tile systems if a fill of more than 2 feet is contemplated. Vertical tiles shall be held in place with stone fill. Tile joints shall be tight. A few radial tiles shall extend beyond each intersection and shall slope sharply downward to insure good drainage. Tar paper or its approved equivalent shall be placed over the tile and/or pipe joints to prevent clogging and large stone shall be placed around and over drain tiles and/or pipes for protection.

A layer of 2" to 6" of stone shall be placed over the entire area under the tree from the well outward at least as far as the drip line. For fills up to 2 feet deep, a layer of stone 8" to 12" thick should be adequate.

A thick layer of this stone not to exceed 30" will be needed for deeper fills. A layer of  $\frac{3}{4}$ " to 1" stone covered by straw, fiberglass mat or a manufactured filter fabric shall be used to prevent soil from clogging the space between stones. Cinders shall not be used as fill material. Filling shall be completed with porous soil such as topsoil until the desired grade is reached. This soil shall be suitable to sustain specified vegetation.

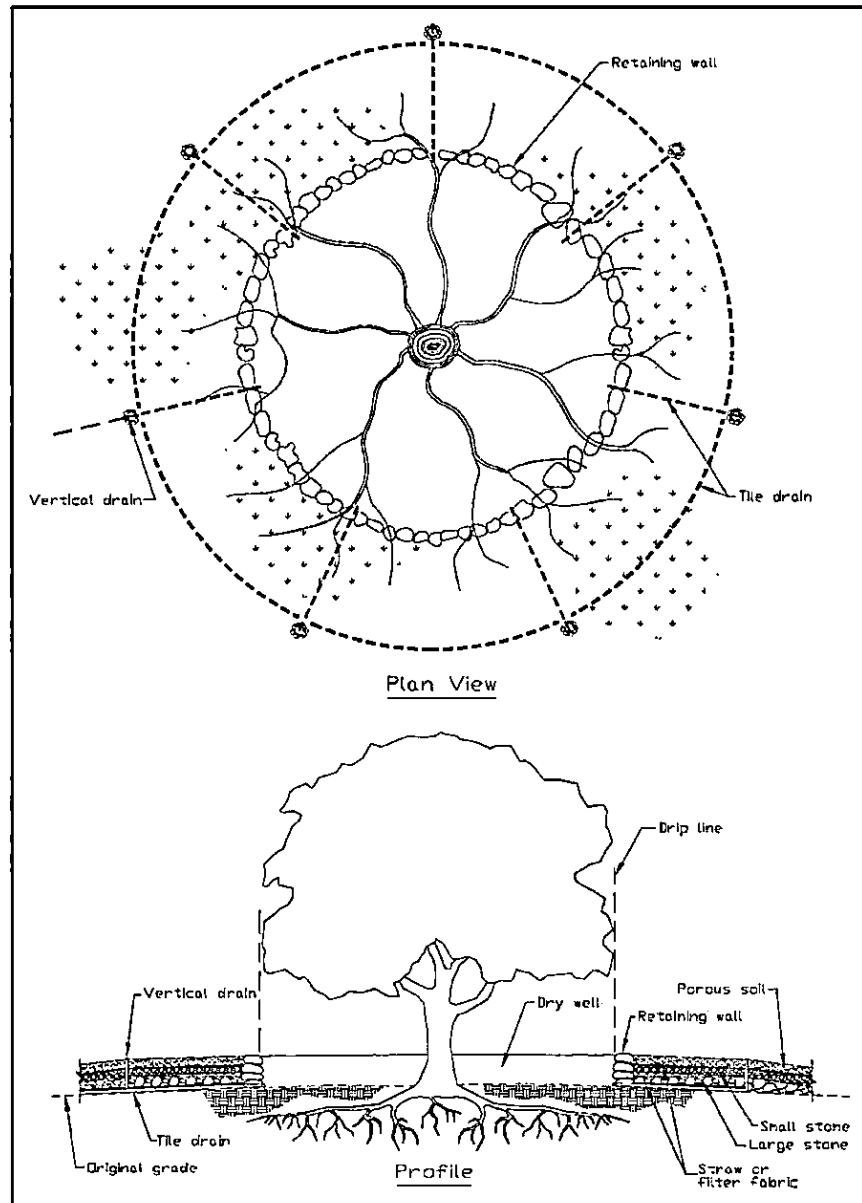


Figure PV-3 Tree Well Detail

Crushed stone shall be placed inside the dry well over the openings of the radial tiles to prevent clogging. The area between the trunk and the well wall shall either be covered by an iron grate or filled with a 50-50 mixture of crushed charcoal and sand to prevent anyone from falling into the dry well.

Where water drainage through the soil is not a problem, coarse gravel in the fill may be substituted for the tile. This material has sufficient porosity to ensure air drainage. Instead of the vertical tiles or pipes in the system, stones, crushed rock and gravel may be added so that the upper level of these porous materials slants toward the surface in the vicinity below the drip line.

Raising the grade on only one side of a tree or group of trees may be accomplished by constructing only half of one of these systems.

### *Lowering the Grade*

Shrubs and trees shall be protected from the harmful grade cuts by the construction of a tree wall (see Figure PV-4). Following excavation, all tree roots that are exposed and/or damaged shall be trimmed cleanly and covered with moist peat moss, burlap or other suitable material to keep them from drying out.

The wall shall be constructed of large stones, brick, building tile, concrete block or cinder block. The wall should be backfilled with topsoil, peat moss, or other organic matter to retain moisture and aid in root development. Apply fertilizer and water thoroughly. The tree plants should be pruned to reduce the leaf surface in proportion to the amount of root loss. Drainage should be provided through the wall so water will not accumulate behind the wall. Lowering the grade on one side of the tree or group of trees can be accomplished by constructing only half of this system.

### *Trenching and Tunneling*

Trenching should be done as far away from the trunks of trees as possible, preferably outside the branches or crown spreads of trees, to reduce the amount of root area damaged or killed by trenching activities. When possible trenches should avoid large roots or root concentrations. This can be accomplished by curving the trench or by tunneling under large roots and areas of heavy root concentration. Tunneling under a species that does not have a large tap root may be preferable to trenching beside it as it has less impact on root systems (see Figure PV-5).

Roots should not be left exposed to the air but should be covered with soil as soon as possible or protected and kept moist with burlap or peat moss until the trench or tunnel can be filled. The ends of damaged and cut roots shall be cut off smoothly and moist peat moss, burlap or topsoil should be placed over the exposed area.

Trenches and tunnels shall be filled as soon as possible. Care should be taken to ensure that air spaces are not left in the soil. Peat moss or other organic matter shall be added to the fill material as an aid to inducing and developing root growth. The tree should be fertilized and mulched to stimulate new root growth and enhance general tree vigor. If a large part of the root system has been damaged the crown leaf surface area should be reduced in proportion to the root damage. This may be accomplished by pruning 20-30 percent of the crown foliage. If the roots are damaged during the winter the crown should be pruned before the next growing season. If roots are cut during the growing season, pruning should be done immediately.

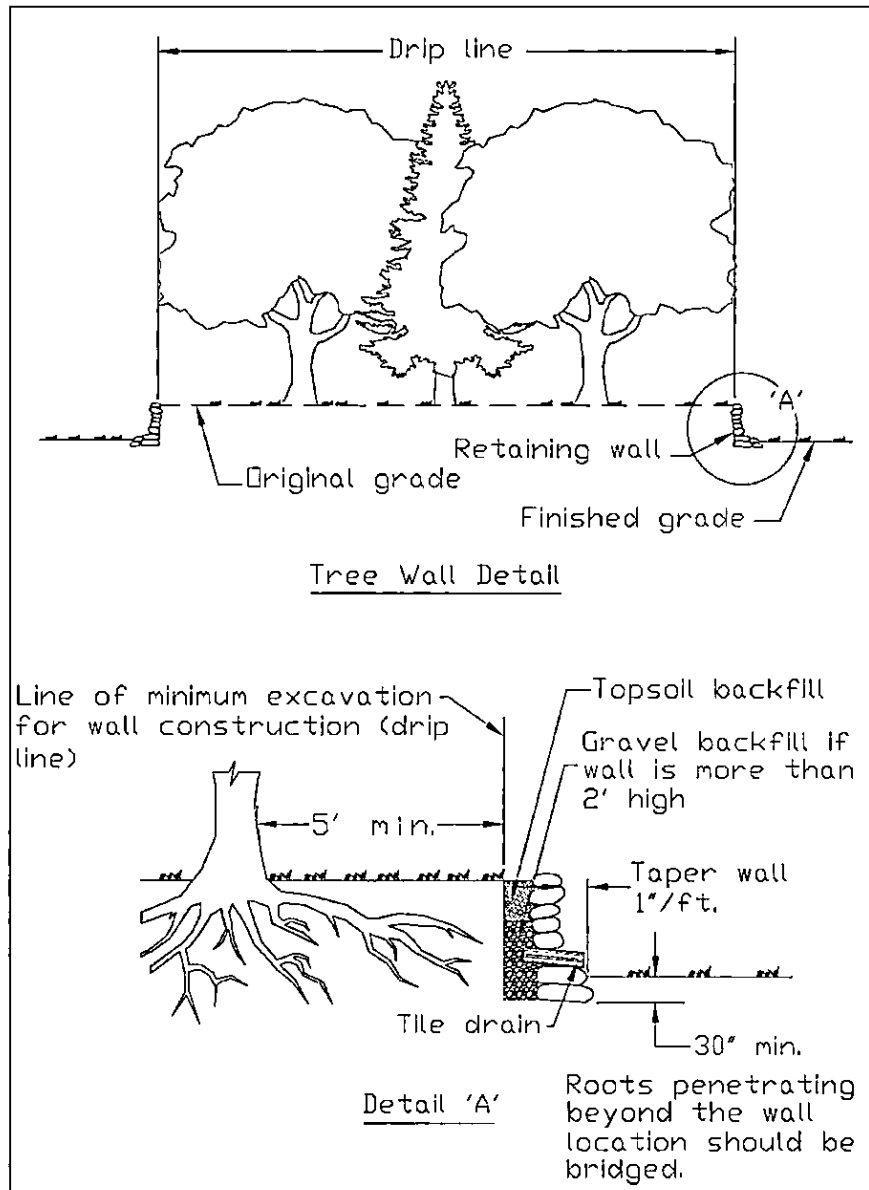


Figure PV-4 Tree Wall Detail



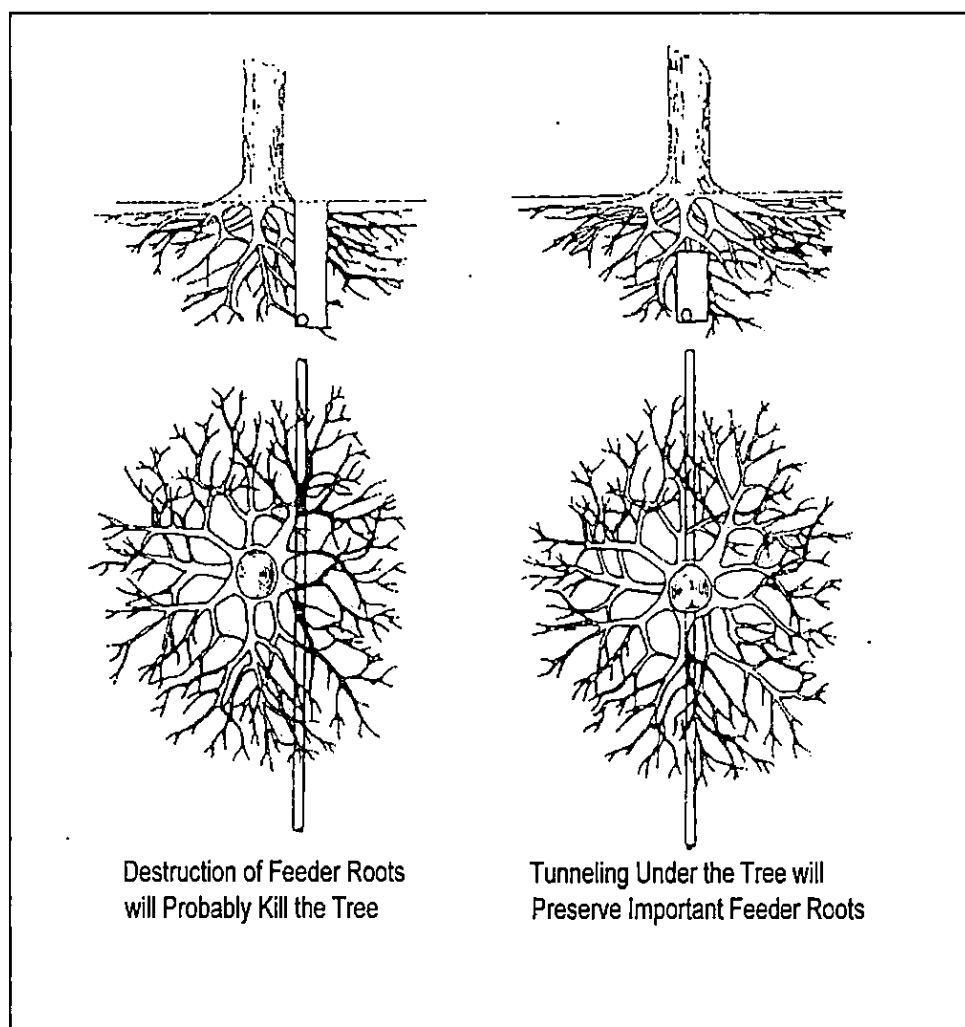


Figure PV-5 Trenching vs Tunneling

### *Treating Damaged Trees*

When trees are damaged during construction activities certain maintenance practices can be applied to protect the health of the tree.

Soil aeration may be needed if the soil has been compacted. The soil around trees can be aerated by punching holes 1 foot deep and 18" apart under the crown of trees with an iron pipe.

Damaged roots should be cut off cleanly and moist peat moss, burlap or topsoil should be placed over the exposed area. Bark damage should be treated by removing loose bark.

Tree limbs damaged during construction or removed for any other reason shall be cut off above the collar at the branch junction.

Trees that have been stressed or damaged should be fertilized to aid their recovery.

Trees should be fertilized in the spring or fall. Fall applications are preferred.

Fertilizer should be applied to the soil over the feeder roots. In no case should it be applied closer than 3 feet to the trunk. Root systems of trees extend some distance beyond the drip line. The area to be fertilized should be increased by  $\frac{1}{4}$  the area of the crown. A soil test is the best way to determine what type of fertilizer to use. In the absence of a soil test, fertilizer should be applied at the rate of 1 to 2 pounds of 10-8-6 or 10-6-4 per inch of dbh for trees under 6" dbh and at the rate of 2 to 4 pounds of 10-8-6 or 10-6-4 per inch of dbh for trees over 6" dbh.

A ground cover or organic mulch layer should be maintained around trees to prevent erosion, protect roots and to conserve water.

## 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 on-site and off-site damage or hazards may occur if dust is not controlled.

### Planning Considerations

Construction activities that disturb soil can be a significant source of air pollution. Large quantities of dust can be generated, especially in “heavy” construction activities such as land grading for road construction and commercial, industrial or subdivision development.

The scheduling of construction operations so that the least amount of area is disturbed at one time is important in planning for dust control.

The greatest dust problems occur during dry periods. Therefore, to the extent practicable do not expose large areas of bare soil during drought conditions.

Where wind erosion is a potential cause of dust problems, preserving vegetation should be considered as a passive measure. Leave undisturbed buffer areas between graded areas wherever possible.

Installing temporary or permanent surface stabilization measures immediately after completing land grading will minimize dust problems.

## Design Criteria

### *Permanent Methods*

#### *Vegetative Cover*

For disturbed areas not subject to traffic, vegetation provides the most practical method of dust control. Establish vegetative cover according to the Permanent Seeding or Temporary Seeding practice.

#### *Topsoiling*

This entails covering the surface with less erosive soil material. See Topsoiling practice for guidance.

#### *Stone*

Stone used to stabilize construction roads can also be effective for dust control. Stone should be spread a minimum of 6" thick over construction roads in the disturbed area. For heavily traveled roads or roads subjected to heavy loads the stone thickness should be 8" to 10". A non-woven geotextile meeting the minimum requirements of ASSHTO M288 should be used under the stone.

### *Temporary Methods*

#### *Mulches*

Mulch offers a fast, effective means of controlling dust when properly applied. See Mulching practice for guidelines for planning and installing the practice.

#### *Temporary Vegetative Cover*

For disturbed areas where no activity is anticipated for 14 days or longer, temporary seeding can effectively control dust. Establish vegetative cover according to Temporary Seeding practice guidelines.

#### *Calcium Chloride*

Calcium chloride may be applied by mechanical spreader as loose, dry granules or flakes at a rate that keeps the surface moist but not so high as to cause water pollution or plant damage. Sites may need to be retreated because the product degrades over time.

*Spray-on Adhesives*

Spray-on adhesives may be used on mineral soils for dust control. Traffic must be kept off treated areas to prevent the product from becoming ineffective. Examples of spray-on adhesives for use in dust control are listed in Table DC-1.

Table DC-1 Spray-on Adhesives for Dust Control on Mineral Soil

Material	Water Dilution	Type of Nozzle	Apply Gal/Ac
Anionic Asphalt Emulsion	7:1	Coarse Spray	1,200
Latex Emulsion	12.5:1	Fine Spray	235
Resin In Water	4:1	Fine Spray	300

*Chemical Stabilization (CHS)*

Chemical products are available for use on mineral soils for dust control. Traffic must be often kept off treated areas to prevent the product from becoming ineffective. The manufacturer or supplier shall provide written application methods. The application method shall ensure uniform coverage to the target and avoid drift to non-target areas including waters of the State. The manufacturer or supplier shall also provide written instructions to ensure proper safety, storage, and mixing of the product. Refer to the Planning Considerations for the Chemical Stabilization practice for planning consideration before deciding to use these type products.

*Sprinkling or Irrigation*

Sprinkling is especially effective for dust control on haul roads and other traffic routes. Sprinkle the site until the surface is wet. Repeat as needed. Also bare areas may be kept wet with irrigation to control dust as an emergency treatment.

*Tillage*

Tillage is used to roughen the site and bring clods and moist soil to the surface. This is a temporary emergency measure that can be used on large open disturbed areas as soon as soil blowing starts. Begin tilling on the windward edge of the site. The depth of tillage is determined by the depth to moist soil and the amount of moist soil desired at the surface. In sandy soils, the depth to moist soil may make tillage impractical.

*Barriers*

A board fence, wind fence, sediment fence, hay bales, or similar barriers can control air currents and blowing soil. Place barriers perpendicular to prevailing air currents at intervals about 15 times the barrier height.

## Sediment Trap (ST)



### Practice Description

A sediment trap is a temporary catch basin used for the purpose of intercepting and detaining small amounts of sediment to prevent it from leaving the construction site. This practice applies within disturbed areas with very small drainage basins that are subject to sheet erosion or in minor swales. Various materials may be used for sediment traps and include straw bales, sand bags, wattles, and various man-made materials and devices.

### Planning Considerations

*Note: Straw bales are the only sediment trap material covered in this handbook.*

In certain situations, straw bales can be used as an alternative to silt fence for trapping sediment. The practice should only be used to trap sediment for a short duration from very small drainage areas. Straw bales comparatively low flow rate should be considered before choosing to use this practice. Ponding above the bales can occur rapidly due to the low flow rate. Overtopping and bypass of the bales can cause significant damage to the site. Additional measures should be used if turbidity leaving the site served by this practice is an issue.

## Design Criteria

### *Drainage Area*

For disturbed areas subject to sheet erosion the drainage area should be restricted to ¼ acre per 100 feet of trap. The slope length behind the trap should be restricted according to Table ST-1.

Table ST-1 Criteria for Straw or Hay Bale Placement

Land Slope (Percent)	Maximum Slope Length Above Bale (Feet)
<2	75
2 to 5	50
5 to 10	35
10 to 20	20
>20	10

### *Bale Size*

Bales should be 14" x 18" x 36".

### *Anchors*

Two 36" long (minimum) 2" x 2" hardwood stakes should be driven through each bale after the bales are properly entranced. Alternate anchors can be 2 pieces of no.4 steel rebar, 36" long (minimum). See Figure ST-1 for details on proper installation of straw bales.

### *Effective Life*

Straw and hay bales have a relatively short period of usefulness and should not be used if the project duration is expected to exceed 3 months. Bale placement should result in the twine or cord being on the side and not the bottom of the bale.

### *Location*

This practice should be used on nearly level ground and be placed at least 10 feet from the toe of any slope. The barrier should follow the land contour. The practice should never be used in live streams or in swales where there is a possibility of washout. The practice should also not be used in areas where rock or hard surfaces prevent the full and uniform anchoring of the bales.

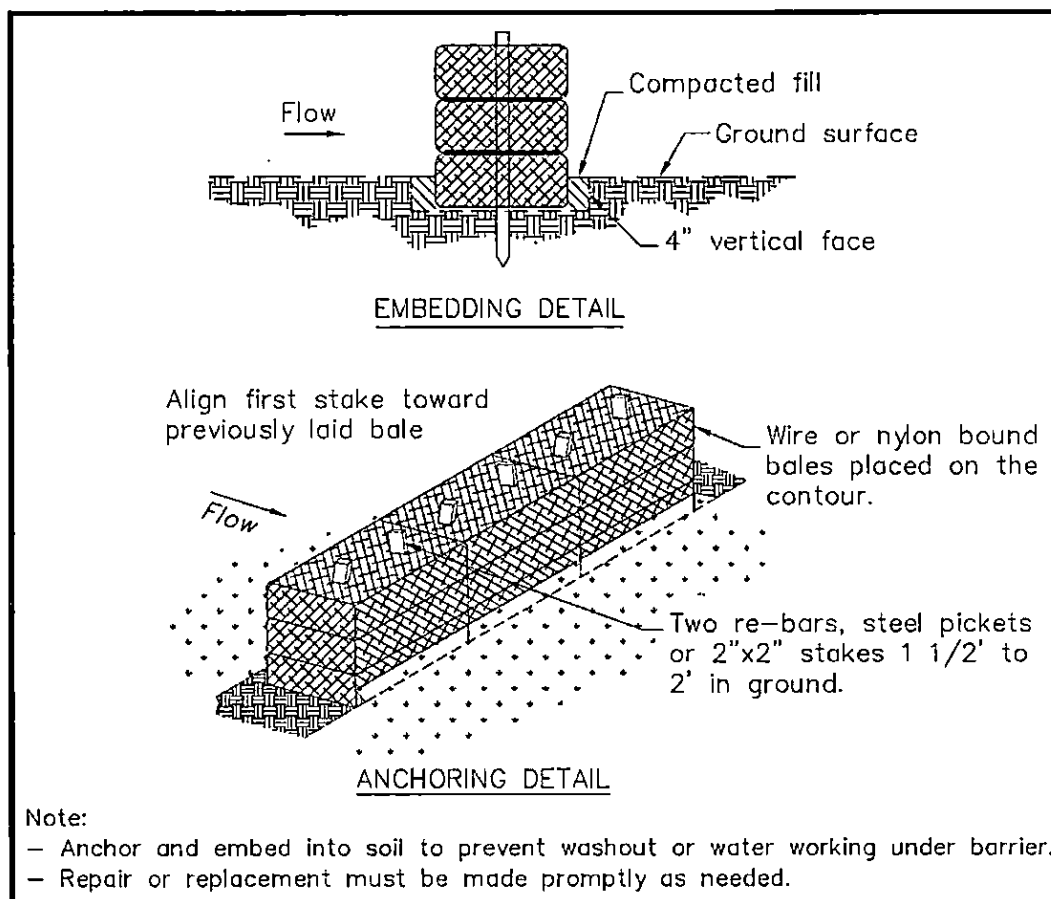


Figure ST-1 Anchoring Technique for Straw Bales



## Temporary Seeding (TS)



### Practice Description

Temporary seeding is the establishment of fast-growing annual vegetation from seed on disturbed areas. Temporary vegetation provides economical erosion control for up to a year and reduces the amount of sediment moving off the site.

This practice applies where short-lived vegetation can be established before final grading or in a season not suitable for planting the desired permanent species. It helps prevent costly maintenance operations on other practices such as sediment basins and sediment barriers. In addition, it reduces problems of mud and dust production from bare soil surfaces during construction. Temporary or permanent seeding is necessary to protect earthen structures such as dikes, diversions, grass-lined channels and the banks and dams of sediment basins.

### Planning Considerations

Temporary vegetative cover can provide significant short-term erosion and sediment reduction before establishing perennial vegetation.

Temporary vegetation will reduce the amount of maintenance associated with sediment basins.

Temporary vegetation is used to provide cover for no more than 1 year. Permanent vegetation should be established at the proper planting time for permanent vegetative cover.

Certain plants species used for temporary vegetation will produce large quantities of residue which can provide mulch for establishment of the permanent vegetation.

Proper seedbed preparation and selection of appropriate species are important with this practice. Failure to follow establishment guidelines and recommendations carefully may result in an inadequate or short-lived stand of vegetation that will not control erosion.

The selection of plants for temporary vegetation must be site specific. Factors that should be considered are type of soils, climate, establishment rate, and management requirements of the vegetation. Other factors that may be important are wear, mowing tolerance, and salt tolerance of vegetation.

Seeding properly carried out within the optimum dates has a higher probability of success. It is also possible to have satisfactory establishment when seeding outside these dates. However, as plantings are deviated from the optimum dates, the probability of failure increases rapidly. Seeding dates should be taken into account in scheduling land-disturbing activities.

Site quality impacts both short-term and long-term plant success. Sites that have compacted soils should be modified whenever practical to improve the potential for plant growth.

The operation of equipment is restricted on slopes steeper than 3:1, severely limiting the quality of the seedbed that can be prepared. Provisions for establishment of vegetation on steep slopes can be made during final grading. In construction of fill slopes, for example, the last 4-6" might not be compacted. A loose, rough seedbed with irregularities that hold seeds and fertilizer is essential for hydroseeding. Cut slopes should be roughened (see practice Land Grading).

Good mulching practices are critical to protect against erosion on steep slopes. When using straw, anchor with netting or asphalt. On slopes steeper than 2:1, either hydraulic mulch or erosion control blanket is more appropriate than straw to protect the slope.

The use of irrigation (temporary or permanent) will greatly improve the success of vegetation establishment.

## **Design Criteria**

### *Plant Selection*

Select plants that can be expected to meet planting objectives. To simplify plant selection, use Table TS-1, Commonly Used Plants for Temporary Cover and Figure TS-1, Geographical Areas for Species Adaptation and Seeding Dates. Seeding mixtures commonly specified by the Alabama Department of Transportation are an

appropriate alternative for plantings on rights-of-ways. Additional information related to plantings in Alabama is found in Chapter 2 in the section Non-woody Vegetation for Erosion and Sediment Control.

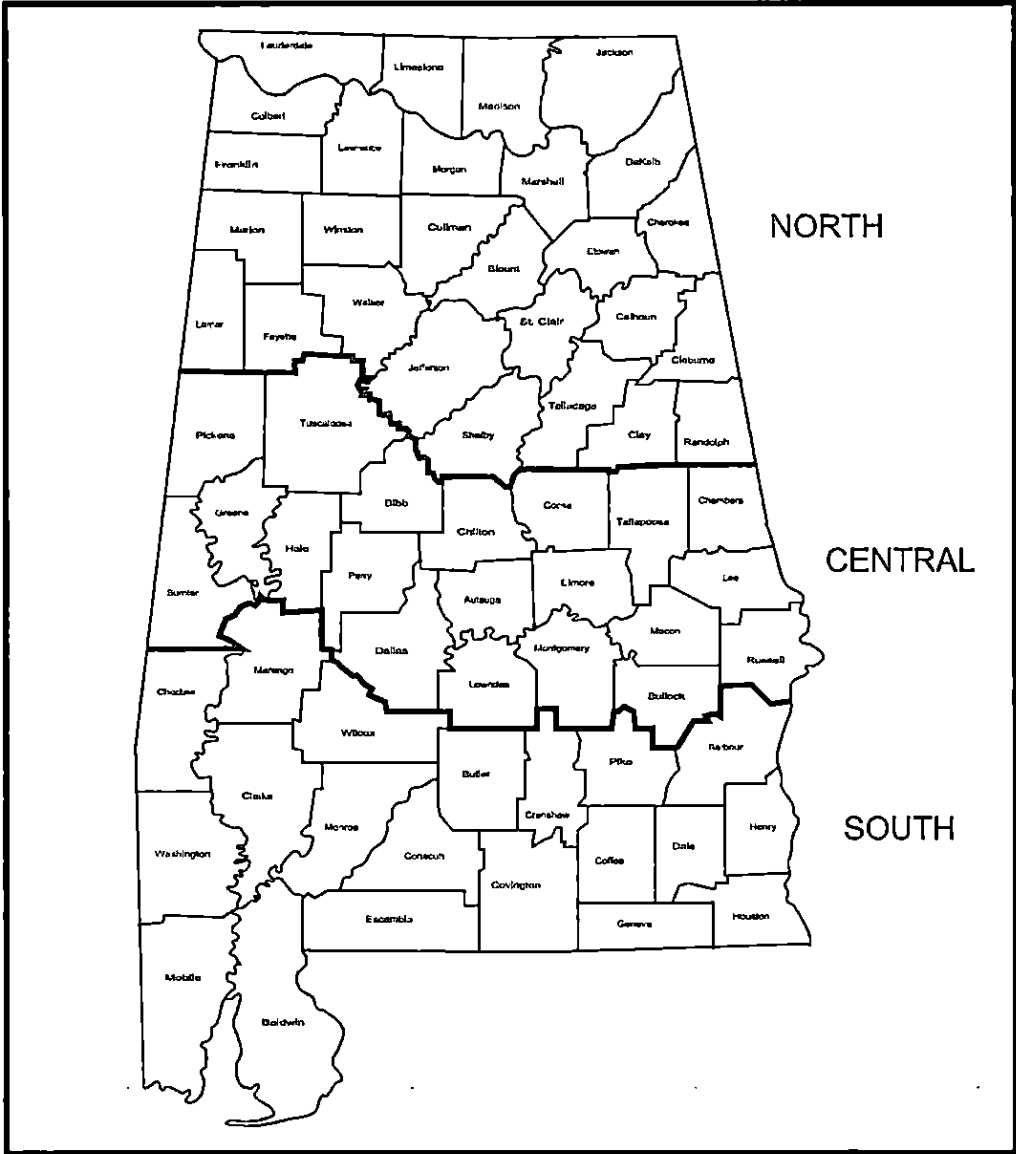


Figure TS-1 Geographical Areas for Species Adaptation and Seeding Dates

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

Table TS-1 Commonly Used Plants for Temporary Cover

Species	Seeding Rate/AC PLS	Seeding Dates		
		North	Central	South
Millet, Browntop or German	40 lbs	Apr1-Aug 1	Apr1- Aug 15	Apr 1-Aug 15
Rye	3 bu	Sep 1-Nov 15	Sep 15-Nov 15	Sep 15-Nov 15
Ryegrass	30 lbs	Aug 1-Sep 15	Sep 1-Oct 15	Sep 1-Oct 15
Sorghum-Sudan Hybrids	40 lbs	May 1-Aug 1	Apr 15-Aug 1	Apr 1-Aug 15
Sudangrass	40 lbs	May 1-Aug 1	Apr 15-Aug	Apr 1-Aug 15
Wheat	3 bu	Sep 1-Nov 1	Sep 15-Nov 15	Sep 15-Nov 15
Common Bermudagrass	10 lbs	Apr 1-July 1	Mar 15-July 15	Mar 1-July 15
Crimson Clover	10lbs	Sept 1-Nov 1	Sept 1-Nov 1	Sept 1-Nov 1

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%,  $PLS = 0.8 \times 0.9 = 72\%$ .  $10 \text{ lbs PLS} = 10/0.72 = 13.9 \text{ lbs}$  of the species to be planted.

#### Site Preparation and Soil Amendments

Complete grading and shaping before applying soil amendments if needed to provide a surface on which equipment can safely and efficiently be used to apply soil amendments and accomplish seedbed preparation and seeding.

##### Lime

Apply lime according to soil test recommendations. If a soil test is not available, use 1 ton of agricultural limestone or equivalent per acre on coarse textured soils and 2 tons per acre on fine textured soils. Do not apply lime to alkaline soils or to areas which have been limed during the preceding 2 years. Other liming materials that may be selected should be provided in amounts that provide equal value to the criteria listed for agricultural lime or be used in combination with agricultural limestone or Selma chalk to provide equivalent values to agricultural limestone.

##### Fertilizer

Apply fertilizer according to soil test results. If a soil test is not available, apply 8-24-24 fertilizer.

When vegetation has emerged to a stand and is growing, 30 to 40 lbs/acre (approximately 0.8 lbs/1000 ft<sup>2</sup>) of additional nitrogen fertilizer should be applied.

*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.*

### *Application of Soil Amendments*

Incorporate lime and fertilizer into the top 6" of soil during seedbed preparation.

### *Seedbed Preparation*

Good seedbed preparation is essential to successful plant establishment. A good seedbed is well pulverized, loose, and smooth. If soils become compacted during grading, loosen them to a depth of 6" to 8" using a ripper or chisel plow.

If rainfall has caused the surface to become sealed or crusted, loosen it just prior to seeding by disking, raking, harrowing, or other suitable methods. When hydroseeding methods are used, the surface should be left with a more irregular surface of clods.

### *Planting Methods*

#### *Seeding*

Evenly apply seed using a cyclone seeder (broadcast), drill seeder, cultipacker seeder, or hydroseeder. Broadcast seeding and hydroseeding are appropriate for steep slopes where equipment cannot operate safely. Small grains should be planted no more than 1" deep, and grasses and legumes no more than ½" deep. Seed that are broadcast must be covered by raking or chain dragging, and then lightly firmed with a roller or cultipacker.

#### *Hydroseeding*

Surface roughening is particularly important when hydroseeding, as a roughened slope will provide some natural coverage for lime, fertilizer, and seed. The surface should not be compacted or smooth. Fine 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 slurry uniformly over the area to be treated. The seed carrier should be a cellulose fiber, natural wood fiber or other approved 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 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 hydro seeder as a separate operation after seedlings are established.

### *Mulching*

The use of appropriate mulch provides instant cover and helps ensure establishment of vegetative cover under normal conditions and is essential to seeding success under harsh site conditions (see the Mulching practice for guidance). Harsh site

conditions include the following: slopes steeper than 3:1 and adverse soils (soils that are shallow to rock, rocky, or high in clay or sand). Areas with concentrated flow should be treated differently and require a hydromulch formulated for channels or an appropriate erosion control blanket.

## 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.

### Planning Considerations

The advantages of seeding over other means of establishing plants include the smaller initial cost, lower labor input, and greater flexibility of method.

Disadvantages of seeding include potential for erosion during the establishment stage, seasonal limitations on suitable seeding dates, and weather-related problems such as droughts.

The probability of successful plant establishment can be maximized through good planning. The selection of plants for permanent vegetation must be site specific. Factors that should be considered are type of soils, climate, establishment rate, and management requirements of the vegetation. Other factors that may be important are wear, mowing tolerance, and salt tolerance of vegetation.

Plant selection for permanent vegetation should be based on plant characteristics, site and soil conditions, time of year of planting, method of planting, and the intended use of the vegetated area. Climate factors can vary widely in Alabama.

Important plant attributes are discussed in Vegetation Establishment for Erosion and Sediment Control in Chapter 2.

Plant selection may include companion plants to provide quick cover on difficult sites, late seedings, or where the desired permanent cover may be slow to establish. Annuals are usually used for companion plants and should be selected carefully to prevent using a species that provide so much competition that it prevents the establishment of the desired species.

Seeding properly carried out within the optimum dates has a higher probability of success. It is also possible to have satisfactory establishment when seeding outside these dates. However, as plantings are deviated from the optimum dates, the probability of failure increases rapidly. Seeding dates should be taken into account in scheduling land-disturbing activities.

Site quality impacts both short-term and long-term plant success. Sites that have compacted soils, soils that are shallow to rock or have textures that are too clayey or too sandy should be modified whenever practical to improve the potential for plant growth and long-term cover success.

The operation of equipment is restricted on slopes steeper than 3:1, severely limiting the quality of the seedbed that can be prepared. Provisions for establishment of vegetation on steep slopes can be made during final grading. In construction of fill slopes, for example, the last 4-6" might not be compacted. A loose, rough seedbed with irregularities that hold seeds and lime and fertilizer is essential for hydroseeding. Cut slopes should be roughened (see Land Grading practice).

Proper mulching is critical to protect against erosion on steep slopes. When using straw, anchor with netting or asphalt. On slopes steeper than 2:1, jute, excelsior, or synthetic matting may be required.

The use of irrigation (temporary or permanent) will greatly improve the success of vegetation establishment.

## **Design Criteria**

### *Plant Selection*

Select plants that can be expected to meet planting objectives. To simplify plant selection, use Figure PS-1 Geographical Areas for Species Adaptation and Seeding Dates and Table PS-1, Commonly Used Plants for Permanent Cover. Mixtures commonly specified by the Alabama Department of Transportation are an appropriate alternative for plantings on rights-of-ways. Additional information related to plants commonly used in Alabama is found in Chapter 2 under the section Vegetation for Erosion and Sediment Control.

The plants used for temporary vegetation may be used for companion plants provided the seeding rate of the annual species is reduced by one half. See the Temporary Seeding practice for additional information on establishing temporary





Table PS-1 Commonly Used Plants for Permanent Cover with Seeding Rates and Dates

Species	Seeding Rates/Ac PLS	Seeding Dates		
		North	Central	South
Bahiagrass, Pensacola	40 lbs	--	Mar 1-July 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	--
Sericea	40-60 lbs	Mar 15-July 15	Mar 1-July 15	Feb 15-July 15
Sericea & Common Bermudagrass	40lbs 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-Jun 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%,  $PLS = 0.8 \times 0.9 = 72\%$ .  $10 \text{ lbs PLS} = 10 / 0.72 = 13.9 \text{ lbs}$  of the species to be planted.

### Seedbed Requirements

Establishment of vegetation should not be attempted on sites that are unsuitable due to compaction or inappropriate soil texture, poor drainage, concentrated overland flow, or steepness of slope until measures have been completed to correct these problems. To maintain a good stand of vegetation, the soil must meet certain minimum requirements as a growth medium. A good growth medium should have these attributes:

- Sufficient pore space to permit root penetration.
- Enough fine-grained soil material (silt and clay) to maintain adequate moisture and nutrient supply.
- Sufficient depth of soil to provide an adequate root zone. The depth to rock or impermeable layers such as hardpans should be 12" or more, except on slopes steeper than 2:1 where topsoiling is not feasible.
- A favorable pH range for plant growth, usually 6.0-6.5.

- Sufficient nutrients (nitrogen, phosphorus and potassium) for initial plant establishment.
- Freedom from large roots, branches, stones, or large clods. Clods and stones may be left on slopes steeper than 3:1 if they are to be hydroseeded.

If any of the above attributes are not met: i.e., if the existing soil is too dense, coarse, shallow or acidic to foster vegetation – chiseling, topsoil, or special amendments should be used to improve soil conditions. The soil conditioners described below may be beneficial or topsoil may be applied (for guidance on topsoiling see Topsoiling practice). These amendments should only be necessary where soils have limitations that make them poor for plant growth or for turf establishment.

- Peat-appropriate types are sphagnum moss peat, reed-sedge peat, or peat humus, all from fresh-water sources. Peat should be shredded and conditioned in storage piles for at least 6 months after excavation.
- Sand-should be clean and free of toxic materials.
- Vermiculite-use horticultural grade.
- Rotted manure-use stable or cattle manure not containing undue amounts of straw or other bedding materials.
- Thoroughly rotted sawdust-should be free of stones and debris. Add 6 lbs of nitrogen to each cubic yard.

### *Soil Amendments*

#### *Liming Materials*

Lime (Agricultural limestone) should have a neutralizing value of not less than 90 percent calcium carbonate equivalent and 90 percent will pass through a 10 mesh sieve and 50 percent will pass through a 60 mesh sieve.

Selma chalk should have a neutralizing value of not less than 80 percent calcium carbonate equivalent and 90 percent will pass through a 10 mesh sieve.

Other liming materials that may be selected should be provided in amounts that provide equal value to the criteria listed for agricultural lime or be used in combination with agricultural limestone or Selma chalk to provide equivalent values to agricultural limestone.

#### *Plant Nutrients*

Commercial grade fertilizers that comply with current Alabama Fertilizer Laws should be used to supply nutrients required to establish vegetation.

Lime and fertilizer needs should be determined by soil tests. Soil testing is performed by the Auburn University Soil Testing Laboratory and provides recommendations based on field tests on Alabama soils. The local county Cooperative Extension Service can provide information on obtaining soil tests. Commercial laboratories that make recommendations based on soil analysis may be used.

When soil tests are not available, use the following rates for application of soil amendments.

Sandy soils: Use 1 ton/acre (exception on sandy soils – if the cover will be tall fescue and clover) use 2 tons/acre.

Clayey soils: 2 tons/acre.

(Do not apply lime to alkaline soils).

Grasses alone: Use 400 lbs/acre of 8-24-24 or the equivalent. Apply 30 lbs of additional nitrogen when grass has emerged and begun growth (approximately 0.8lbs/1000 ft<sup>2</sup>).

Grass-legume mixtures: Use 800 to 1200 lbs/acre of 5-10-10 or the equivalent.

Legumes Alone: Use 400 to 600 lbs/acre of 0-20-20 or the equivalent.

*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.*

### *Application of Soil Amendments*

Apply lime and fertilizer evenly and incorporate into the top 6” of soil by disking, chiseling or other suitable means during seedbed preparation. Operate machinery on the contour. On sites too steep for seedbed preparation, fertilizer and lime can be applied with a hydroseeder.

### *Seedbed Preparation*

If needed, grade and shape to provide a surface on which equipment can safely and efficiently be used for seedbed preparation and seeding.

Install necessary sediment control practices before seedbed preparation and complete grading according to the approved plan.

Prepare a friable seedbed with tillage to a depth of at least 6”. Break up large clods, alleviate compaction, and smooth and firm the soil into a uniform surface. Fill in or level depressions that can collect water.

### *Planting Methods*

#### *Seeding*

Use certified seed for permanent seeding whenever possible. Certified seed is inspected by the Alabama Crop Improvement Association to meet high quality standards and will be tagged with a “Certified Seed” tag. (Note: all seed sold in Alabama is required by law to be tagged to identify seed purity, germination, and

presence of weed seeds. Seed must meet state standards for content of noxious weeds.)

Seeding dates are determined using Figure PS-1 and Table PS-1.

Inoculate legume seed with the Rhizobium bacteria appropriate to the species of legume. Details of legume inoculation are located in Chapter 2 in the part on Vegetation for Erosion and Sediment Control under Inoculation of Legumes.

Plant seed uniformly with a cyclone seeder, a drill seeder, a cultipacker seeder, or by hand on a fresh, firm, friable seedbed. If the seedbed has been sealed by rainfall, it should be disked so the seed will be sown into a freshly prepared seedbed.

When using broadcast-seeding methods, subdivide the area into workable sections and determine the amount of seed needed for each section. Apply one-half the seed while moving back and forth across the area, making a uniform pattern; then apply the second half in the same way, but moving at right angles to the first pass.

Cover broadcast seed by raking or chain dragging; then firm the surface with a roller or cultipacker to provide good seed contact. Small grains should be planted no more than 1" deep and grasses and legume seed no more than ½" deep.

#### *Hydroseeding*

Surface roughening is particularly important when hydroseeding, as a roughened slope will provide some natural coverage for lime, fertilizer, and seed. The surface should not be compacted or smooth. Fine 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 other approved 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.

Lime is not normally applied with a hydraulic seeder because it is abrasive but if necessary it can be added to the seed slurry and applied at seeding or it may be applied with the fertilizer mixture. Also lime can be blown onto steeper slopes in dry form.

### *Sprigging*

Hybrid bermudagrass cannot be grown from seed and must be planted vegetatively. Vegetative methods of establishing common and hybrid bermudagrass, centipedegrass and zoysia include sodding, plugging and sprigging (see Sodding practice).

When sprigs are planted with a sprigging machine, furrows should be 4-6" deep and 2 feet apart. Place sprigs no farther than 2 feet apart in the row and so that at least one rooting node is in the furrow.

When broadcasting is used for sprig planting, broadcast sprigs at the specified rate (Table PS-1). Press into the top ½" to 2" of soil with a cultipacker or with a disk set nearly straight so that the sprigs are not brought back to the surface. A mulch tacking machine may be used to press sprigs into the soil.

### *Mulching*

The use of mulch provides instant cover and helps ensure establishment of vegetation under normal conditions and is essential to seeding success under harsh site conditions (see Mulching practice). Harsh site conditions include: slopes steeper than 3:1 and adverse soils (shallow, rocky, or high in clay or sand). Areas with concentrated flow should be treated differently and require sod, a hydromulch formulated for channels or an appropriate erosion control blanket.

### *Irrigation*

Moisture is essential for seed germination and vegetation establishment. Supplemental irrigation can be very helpful in assuring adequate stands in dry seasons or to speed development of full cover. It is a requirement for establishment of vegetation from sod and sprigs and should be used elsewhere when feasible. However, irrigation is rarely critical for low-maintenance vegetation planted at the appropriate time of the year.

Water application rates must be carefully controlled to prevent runoff. Inadequate or excessive amounts of water can be more harmful than no supplemental water.

### *Maintenance*

Generally, a stand of vegetation cannot be determined to be fully established until soil cover has been maintained for 1 full year from planting. Inspect vegetated areas for failure and make necessary repairs and vegetate as soon as possible.

If a stand has inadequate cover, reevaluate choice of plant materials and quantities of lime and fertilizer. Re-establish the stand after seedbed preparation or over-seed the stand. Consider a temporary seeding if the time of year is not appropriate for establishment of permanent vegetation (see Temporary Seeding practice).

If vegetation fails to grow, a soil test should be made to determine if soil acidity or nutrient imbalance is responsible.

To attain complete establishment, fertilization is usually required in the second growing season. Turf grasses require annual maintenance fertilization. Use soil tests if possible or follow the guidelines given for the specific seeding mixtures.

Protect vegetation during its establishing period from traffic that will be harmful. If appropriate, use either temporary fences or barriers to protect areas that may be damaged by excessive traffic.

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## 4. Inspections

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### 4.1. Visual Inspection Background<sup>1</sup>

Visual inspection is a BMP in which an inspector visually examines material storage and outdoor processing areas, the storm water discharges from such areas, and the environment in the vicinity of the discharges, to identify contaminated runoff and its possible sources. In a visual inspection, storm water runoff may be examined for the presence of floating and suspended materials, oil and grease, discoloration, turbidity, odor, or foam; and storage areas may be inspected for leaks from containers, discolorations on the storage area floor, or other indications of a potential for pollutants to contaminate storm water runoff. Visual inspections may indicate the need to modify a facility to reduce the risk of contaminating runoff. Visual inspections are an effective way to identify a variety of problems. Correcting these problems can improve the water quality of the receiving water.

Visual inspections for signs of storm water contamination should be performed at least twice per week. Visual inspections of a facility should focus on key areas such as storage facilities; transfer pipelines; loading and unloading areas; pipes, pumps, valves, and fittings; tanks; secondary containment facilities; and shipping containers. In addition, a visual inspection should include ensuring that dry chemicals and dust from industrial areas is not exposed to wind or other elements that may move them into the runoff. Outfall flow rates and the presence of oil sheens, floatables, coarse solids, color, and odors will probably be the most useful indicators of potential problems.

Specific parameters to look for in completing a visual inspection include the following:

- **Odor:** Discharge odors can vary widely. Some may indicate the source of contamination. Industrial discharges may smell like a particular spoiled product, oil, gasoline, a specific chemical, or a solvent.
- **Color:** Color may indicate inappropriate discharges, especially from industrial sources. Industrial discharges might be any color. Contamination from industrial areas might come from process waters (slug or continuous discharges); from equipment and work area wash water discharged to floor drains; or from spills washed into storm drains.
- **Turbidity:** Turbidity is often affected by the degree of gross contamination. Industrial flows can be cloudy (moderately turbid) or opaque (highly turbid). Undiluted industrial discharges, such as those coming from continual flow sources or intermittent spills, are often highly turbid. Sanitary wastewater is also often cloudy in nature.
- **Floatable matter:** A contaminated flow may also contain floatable solids or liquids. Identifying floatables can aid in finding the source of the contamination, because these substances are usually direct products or byproducts of the manufacturing

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<sup>1</sup> Office of Water. *Storm Water Management Fact Sheet: Visual Inspection*. EPA 832-F-99-046. United States Environmental Protection Agency. Washington, D.C. September 1999.



process or the sanitary system. Examples of floatables of industrial origin are animal fats, spoiled food products, oils, plant parts, solvents, sawdust, foams, packing materials, and fuel.

- **Deposits and Stains:** Deposits and stains (residues) are any type of coating that remains after a non-storm water discharge has ceased. Deposits or stains usually are of a dark color and usually cover the area surrounding the storm water discharge. They often contain fragments of floatable substances, and, at times, take the form of a crystalline or amorphous powder.
- **Vegetation:** Storm water discharges often affect surrounding vegetation. Industrial pollutants often cause a substantial alteration in the chemical composition and pH of the discharge water, which can affect plant growth even when the source of contamination is intermittent.
- **Structural Damage:** Structural damage is also a sign of industrial discharge contamination. Cracked or deteriorated concrete or peeling surface paint at an outfall usually indicates the presence of severely contaminated discharges. Contaminants causing this type of damage are usually very acidic or basic and are usually of industrial origin.

Proper records of inspection results must be kept. The record for each inspection should include the date of the inspection, the name of the person who performed the inspection, and his observations.

#### **4.2. Inspector and Frequency**

Company personnel will inspect the facility, especially any structures that function to prevent stormwater pollution or to remove pollutants from stormwater, at least twice per week on workdays to ensure that the best management plan is continually implemented and effective.

## **5. Documentation**

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### **5.1. Routine Inspections**

Conduct routine (twice per week) inspections of the facility as described in the previous chapter. Table 6-1 may be used to document the inspections.

### **5.2. Training**

Train all personnel required to implement the BMP Plan, at a minimum, with regard to the contents of this BMP Plan. Table 6-2 may be used to document the training. Retain the documentation of training at the facility. Make the documentation available for inspection by ADEM representatives. Conduct training prior to the date that implementation of the BMP Plan is required.

**Table 5-1. Routine Inspection Documentation.**

BMP Plan Routine Inspections	Inspector Signature									
	Comments									
	Date									

Table 5-2. Training Documentation.

BMP Plan Training Documentation	Date	Attendees	Instructor / Supervisor Signature	



RECEIVED

MAY 04 2020

STORM WATER  
MANAGEMENT BRANCH

April 30, 2020

Field Operations – MNPS  
**Alabama Department of Environmental Management**  
*ATTN: Ms. Jasmine White*  
1400 Coliseum Boulevard  
Montgomery, AL 36110-2059

RE: **Bunn Brothers Materials, Inc.**  
Berry Sandstone Quarry, AL0071323  
NPDES Permit Application

Dear Jasmine:

Enclosed please find an NPDES permit renewal application along with a \$5,820.00 check (application fee) for the above referenced permit.

The attached Spill Prevention and Countermeasures Plan and the Pollution Abatement Plan was designed and certified by Poly, Inc.. These plans are still being implemented and are still active at the Berry Sandstone Quarry.

If you should have any questions please feel free to contact our office.

Sincerely,

**McGehee Engineering Corp.**

A handwritten signature in blue ink, appearing to read "C. W. McGehee", with a long horizontal line extending to the right.

C. W. McGehee, P. E.  
Alabama Reg. No. 17067