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DIRECTOR

KAY IVEY
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Alabama Department of Environmental Management
adem.alabama.gov
1400 Coliseum Blvd. 36110-2400 ▪ Post Office Box 301463
Montgomery, Alabama 36130-1463
(334) 271-7700 ▪ FAX (334) 271-7950

October 16, 2019

Kevin Hamm
Vice President - Engineering and Research
General Shale Brick, Inc.
Post Office Box 3547
Johnson City, TN 37602

RE: Draft Permit
Lumpkin Mill Mine
NPDES Permit No. AL0080012
Cherokee County (019)

Dear Mr./ Hamm:

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.

The Department utilizes a web-based electronic environmental (E2) reporting system for electronic DMR submittal. Please read Part I.D of the permit carefully and visit https://e2.adem.alabama.gov/npdes.

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

Sincerely,

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

CAM/mab File: DPER/38020

Enclosure

cc: Ange Boatwright, ADEM
Environmental Protection Agency Region IV
Alabama Department of Conservation and Natural Resources
U.S. Fish and Wildlife Service
Alabama Historical Commission
Advisory Council on Historic Preservation
Alabama Department of Labor

Birmingham Branch
110 Vulcan Road
Birmingham, AL 35209-4702
(205) 942-6168
(205) 941-1603 (FAX)

Decatur Branch
2715 Sandlin Road, S.W.
Decatur, AL 35603-1333
(256) 353-1713
(256) 340-9359 (FAX)

Mobile Branch
2204 Perimeter Road
Mobile, AL 36615-1131
(251) 450-3400
(251) 479-2593 (FAX)

Mobile-Coastal
3664 Dauphin Street, Suite B
Mobile, AL 36608
(251) 304-1176
(251) 304-1189 (FAX)

ADEM
Alabama Department of Environmental Management

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM INDIVIDUAL PERMIT

PERMITTEE:	General Shale Brick, Inc. Post Office Box 3547 Johnson City, TN 37602
FACILITY LOCATION:	Lumpkin Mill Mine State Highway 25 Centre, AL 35960 Cherokee County T11S, R11E, S11, 12, 13, 14
PERMIT NUMBER:	AL0080012
DSN & RECEIVING STREAM:	001-1 Lumpkin Mill Creek 002-1 Lumpkin Mill Creek 003-1 Unnamed Tributary to Lumpkin Mill 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 ****

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

1. 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 **Outfalls 001-1 and 002-1**, 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[1]
pH 00400	6.0 s.u.	-------	9.0 s.u.	Grab	2/Month
Solids, Total Suspended 00530	-------	-------	35.0 mg/L	Grab	2/Month
Aluminum, Total (as Al) 01105	-------	Report mg/L	Report mg/L	Grab	2/Month
Flow, In Conduit or Thru Treatment Plant[2] 50050	-------	Report MGD	Report MGD	Instantaneous	2/Month

2. 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 **Outfall 003-1**, identified on Page 1 of this Permit and described more fully in the Permittee's application, if the outfall has 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[3]
pH 00400	6.0 s.u.	-------	8.5 s.u.	Grab	2/Month
Solids, Total Suspended 00530	-------	-------	35.0 mg/L	Grab	2/Month
Aluminum, Total (as Al) 01105	-------	Report mg/L	Report mg/L	Grab	2/Month
Flow, In Conduit or Thru Treatment Plant[4] 50050	-------	Report MGD	Report MGD	Instantaneous	2/Month

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1 See Part I.C.2. for further measurement frequency requirements.
2 Flow must be determined at the time of sample collection by direct measurement, calculation, or other method acceptable to the Department.
3 See Part I.C.2. for further measurement frequency requirements.
4 Flow must be determined at the time of sample collection by direct measurement, calculation, or other method acceptable to the Department.

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.

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 28th day of the month following the quarterly reporting period (i.e., on the 28th day of January, April, July, and October of each year).

b. The Department utilizes a web-based electronic 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.

1. 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. NH3-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 ACTIVIES NOT AUTHORIZED

1. Discharges from disposal or landfill activities as described in ADEM Admin. Code div. 335-13 are not authorized by this Permit unless specifically approved by the Department.

2. Relocation, diversion, or other alteration of a water of the State is not authorized by this Permit unless specifically approved by the Department.

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:	General Shale Brick, Inc.
Facility Name:	Lumpkin Mill Mine
County:	Cherokee
Permit Number:	AL0080012
Prepared by:	Ange Boatwright
Date:	October 3, 2019
Receiving Waters:	Lumpkin Mill Creek, Unnamed Tributary to Lumpkin Mill Creek
Permit Coverage:	Shale and/or Common Clay mine, Transportation and storage, and Associated Areas
SIC Code:	1459

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

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

This proposed permit authorizes treated discharges into stream segments, other State waters, or local watersheds that currently have a water quality classification of Fish and Wildlife (F&W) (ADEM Admin. Code r. 335-6-10-.09). If the requirements of the proposed permit are fully implemented, the facility will not discharge pollutants at levels that will cause or contribute to a violation of the F&W classification.

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

Technology Based Effluent Limits (TBELs) for shale and common clay have not yet been developed by the EPA. The pollutants expected to be discharged from the facility, and therefore limited in the proposed permit, are pH and Total Suspended Solids (TSS) (40CFR401.16).

Effluent limitations for TSS are established by Best Professional Judgement (BPJ) with consideration given to those proposed by the EPA for shale and/or common clay mine drainage in the *Development Document for Effluent Limitations Guidelines and New Source Performance Standards for the Mineral Mining and Processing Point Source Category* (July 1979). The TSS limit proposed in this document is a daily maximum of 35 mg/l.

Monitor only requirements have been established at all Outfalls for Aluminum to determine if it may potentially be present in levels of concern due to the use of coagulants. Monitoring results will be used to develop limitations in the future if needed to protect water quality.

The discharge limitations for pH of 6.0 – 8.5 s.u. are based on the instream water quality standards for pH in streams classified as Fish and Wildlife per ADEM Admin. Code r. 335-6-10-.09. A daily maximum pH limit of 9.0 s.u. is allowed by the Department for discharges that occur as a result of rain events due to the low discharge/stream flow ratio. Due to the fact that discharges are expected only during rain events from Outfalls 001-1 and 002-1, it is the opinion of the Department that discharges with an allowable pH daily maximum of 9.0 s.u. will not adversely affect the in-stream pH based on the low discharge/stream flow ratio. Therefore, the daily maximum pH limitation of 9.0 s.u. is used in this permit for Outfalls 001-1 and 002-1. Information in the Permittee's application shows that

discharges could occur during low flow conditions at Outfall 003-1. Therefore, a daily maximum pH of 8.5 s.u. is used in this permit for Outfall 003-1. Under no circumstances may the discharge from any outfall cause the in-stream pH to deviate more than 1.0 s.u. from the normal or natural pH, nor be less than 6.0 s.u. nor greater than 8.5 s.u.

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 into a stream segment or other State water that is included on Alabama's current CWA §303(d) list.

The applicant is proposing discharges of pollutants to the watershed of Weiss Lake on the Coosa River, a water of the State with an approved Total Maximum Daily Load (TMDL) for nutrients and priority organics (PCBs). Nutrients and PCBs are pollutants not expected in significant concentrations from this type of facility. If the requirements of the proposed permit and pollution abatement plan are fully implemented, there is reasonable assurance that the facility will not discharge pollutants at levels that will cause or contribute to a violation of the approved TMDLs set forth by the Alabama Department of Environmental Management.

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.

NPDES INDIVIDUAL PERMIT APPLICATION

LUMPKIN MILL MINE

NPDES PERMIT NO. AL0080012

CHEROKEE COUNTY, ALABAMA

General Shale
Building The American Dream®

JOHNSON CITY, TENNESSEE

December 2018

NPDES Individual Permit Application
Lumpkin Mill Mine

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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.

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

R# 19-47811
$5820.00

I. GENERAL INFORMATION

NPDES Permit Number (Not applicable if initial permit application):	County(s) in which Facility is Located:
AL 0080012	Cherokee

RECEIVED
OCT 04 2019
STORM WATER MANAGEMENT BRANCH

Company/Permittee Name:			Facility Name (*e.g.*, Mine Name, Pit Name, *etc.*):		
General Shale Brick, Inc.			Lumpkin Mill Mine		
Mailing Address of Company/Permittee:			Physical Address of Facility (as near as possible to entrance):		
PO Box 3547			Highway 25		
City:	State:	Zip:	City:	State:	Zip:
Johnson City	TN	37602	Centre	AL	35960

Permittee Phone Number:	Permittee Fax Number:	Latitude and Longitude of entrance:
423/282-4661	423/952-4160	34.08713 -85.44535

Responsible Official (as described on page 12 of this application):			Responsible Official Title:		
Kevin Ham			Vice President - Engineering And Research		
Mailing Address of Responsible Official:			Physical Address of Responsible Official:		
PO Box 3547			3015 Bristol Hwy.		
City:	State:	Zip:	City:	State:	Zip:
Johnson City	TN	37602	Johnson City	TN	37601

Phone Number of Responsible Official:	Fax Number of Responsible Official:	Email Address of Responsible Official:
423/282-4661	423/952-4160	kevin.ham@generalshale.com

Facility Contact:			Facility Contact Title:	
Donny Cox			Plant Manager - Rome Plant No. 40	
Physical Address of Facility Contact:			Phone Number of Facility Contact:	Fax Number of Facility Contact:
121 Turner Bend Road SW			706/802-0777	706/802-0888
City:	State:	Zip:	Email Address of Facility Contact:	
Rome	GA	30165	donny.cox@generalshale.com	

II. MEMBER INFORMATION

A. Identify the name, title/position, and unless waived in writing by the Department, the residence address of every officer, 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 (P.O. Box is Not Acceptable)
List of officers & directors attached		

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:
None		

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 or single proprietorship, 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: Wienerberger AG

D. Land Owner(s): General shale Brick, Inc.

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

IV. COMPLIANCE HISTORY

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

	Yes	No
(1) An Alabama NPDES, SID, or UIC permit suspended or terminated?	☐	☒
(2) An Alabama license to mine suspended or revoked?	☐	☒
(3) An Alabama or federal mining permit suspended or terminated?	☐	☒
(4) A reclamation bond, or similar security deposited in lieu of a bond, or portion thereof, forfeited?	☐	☒
(5) A bond or similar security deposited in lieu of a bond, or portion thereof, the purpose of which was to secure compliance with any requirement of the Alabama Water Improvement Commission or Alabama Department of Environmental Management, 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 months) 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:

NOV issued June 2, 2015: Four samples collected in 2014 and early 2015 exceeded the permit limit for TSS. Our response was sent on June 25, 2015. We installed a pre-basin above Basin 001 later in 2015.

V. OTHER PERMITS/AUTHORIZATIONS

A. List any other NPDES or other environmental permits (including permit numbers), authorizations, or certifications that have been applied for or issued within the State by ADEM, EPA, Alabama Surface Mining Commission (ASMC), Alabama Department of Labor (ADOL), US Army Corp of Engineers (USACE), or other agency, to the applicant, parent corporation, subsidiary, or LLC member for this facility whether presently effective, expired, suspended, revoked, or terminated:

AL Dept of Labor, Surface Mining Permit - File No. 13-General Shale-1

B. List any other NPDES or other ADEM permits (including permit numbers), authorizations, or certifications that have been applied for or issued within the State by ADEM, EPA, ASMC, ADOL or USACE, to the applicant, parent corporation, subsidiary, or LLC member for other facilities whether presently effective, expired, suspended, revoked, or terminated:

NPDES Permits AL0062707, AL0058360 ADIR Permits 5701 & 5703

VI. PROPOSED SCHEDULE

Anticipated Activity Commencement Date: NA Anticipated Activity Completion Date: Unkown

VII. ACTIVITY DESCRIPTION & INFORMATION

A. Proposed Total Area of the Permitted Site: 217.72 acres Proposed Total Disturbed Area of the Permitted Site: 111 acres

B. Township(s), Range(s), Section(s): T11S, R11E, E1/2 Sec 11, SW1/4 SW1/4 Sec 12, N1/2 NE1/4 Sec14, NW1/4 NW1/4 Sec13

C. Detailed Directions to Site: 13 miles east of Centre, AL along US 411 (Hwy 25) on left (1 mile past Forney, AL)

D. Is/ will this facility:

		Yes	No
(1)	an existing facility which currently results in discharges to State waters?	X	
(2)	a proposed facility which will result in a discharge to State waters?		X
(3)	be located within any 100-year flood plain?		X
(4)	discharge to Municipal Separate Storm Sewer?		X
(5)	discharge to waters of or be located in the Coastal Zone?		X
(6)	need/have ADEM UIC permit coverage?		X
(7)	be located on Indian/ historically significant lands?		X
(8)	need/have ADEM SID permit coverage?		X
(9)	need/have ASMC permit coverage?		X
(10)	need/have ADOL permit coverage?	X	
(11)	generate, treat, store, or dispose of hazardous or toxic waste ? (If "Yes," attach a detailed explanation.)		X
(12)	be located in or discharge to a Public Water Supply (PWS) watershed or be located within ½ mile of any PWS well?		X

VIII. MATERIAL TO BE REMOVED, PROCESSED, OR TRANSLOADED

List relative percentages of the mineral(s) or mineral product(s) that are proposed to be and/or are currently mined, quarried, recovered, prepared, processed, handled, transloaded, or disposed at the facility. **If more than one mineral is to be mined, list the relative percentages of each mineral by tonnage for the life of the mine.**

____ Dirt &/or Chert	____ Sand &/or Gravel	____ Chalk	____ Talc	____ Crushed rock (other)
____ Bentonite	____ Industrial Sand	____ Marble	100% Shale &/or Common Clay	____ Sandstone
____ Coal	____ Kaolin	____ Coal fines/refuse recovery	____ Coal product, coke	____ Slag, Red Rock
____ Fire clay	____ Iron ore	____ Dimension stone	____ Phosphate rock	____ Granite
____ Bauxitic Clay	____ Bauxite Ore	____ Limestone, crushed limestone and dolomite		

____ Gold, other trace minerals:_____ ____ Other:_____

____ Other:_____ ____ Other:_____

____ Other:_____ ____ Other:_____

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):

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

B. Primary SIC Code: 1459 NAICS Code: 212325 Description: Shale Mining

Secondary SIC Code(s): _____ NAICS Code: _____ Description: _____

C. Narrative Description of the Activity: Surface mining of shale and stockpiling onsite. There will be no processing of the shale. Coagulants (PAM and/or alum) might be used to settle suspended solids in the sediment basins if needed.

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	*Contents*	*Volume*	*Contents*	*Volume*	*Contents*
1000 gallons	Diesel	55 gallons	Oil	_____ gallons	_____
_____ gallons	_____	_____ gallons	_____	_____ gallons	_____

Currently fuels and oil are not stored on site, a SPCC plan has been developed in case there is a change

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. [x] 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 [x] 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 is located. Unless approved in advance by the Department, the topographic or equivalent map(s), at a minimum, must show:

(a) An accurate outline of the area to be covered by the permit
(b) An outline of the facility
(c) All existing and proposed disturbed areas
(d) Location of discharge areas
(e) Proposed and existing discharge points
(f) Perennial, intermittent, and ephemeral streams
(g) Lakes, springs, water wells, wetlands
(h) All known facility dirt/improved access/haul roads
(i) All surrounding unimproved/improved roads
(j) High-tension power lines and railroad tracks
(k) Buildings and structures, including fuel/water tanks
(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), whether or not the stream is included in a TMDL, latitude and longitude (to seconds) of location(s) of each discharge point, distance of receiving water from outfall in feet, number of disturbed acres, the number of drainage acres which will drain through each treatment system, outfall, or BMP, and if the outfall discharges to an ADEM listed CWA Section 303(d) waterbody segment at the time of application submittal.

Action	Outfall E/P	Receiving Water	Latitude	Longitude	Distance to Rec. Water	Disturbed Acres	Drainage Acres	ADEM WUC	303(d) Segment (Y/N)	TMDL Segment* (Y/N)
Reissue	001 E	Lumpkin Mill Creek	34d 05' 23.6"	85d 26' 18.3"	355	42	45	*	N	N
Reissue	002 P	Lumpkin Mill Creek	34d 05' 38.8"	85d 26' 21.9"	990	55	55	*	N	N
Reissue	003 P	Trib to Lumpkin Mill Creek	34d 05' 12.9"	85d 26' 43.3"	522	<1	<1	*	N	N
		* Lumpkin Mill Cr. drains	to Spring Cr.	with a WUC	of F&W					

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

XVI. DISCHARGE CHARACTERIZATION

A. EPA Form 2C, EPA Form 2D, and/or Modified EPA Form 2C Submittal

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

☐ No, the applicant does not request a waiver and a complete EPA Form 2C, EPA Form 2D, and/or modified EPA Form 2C is attached.

B. The applicant is required to supply the following information separately for every P or E outfall. If necessary, attach extra sheets. List expected average daily discharge flow rate in cfs and gpd, frequency of discharge in hours per day and days per month, average summer and winter temperature of discharge(s) in degrees centigrade (C), average pH in standard units, average daily discharge in pounds per day of BOD_5, Total Suspended Solids, Total Iron, Total Manganese, and Total Aluminum (if bauxite or bauxitic clay):

Outfall E/P	Information Source - # of Samples	Flow cfs	Flow gpd	Frequency hours/day	Frequency days/month	Sum/Win Temp, °C	pH s.u.	BOD_5 lbs/day	TSS lbs/day	Tot Fe lbs/day	Tot Mn lbs/day	Tot Al lbs/day
001 E	DMR - 36	0.002	1325	rain dependant	6.3	ambient	7.6	<1.2	0.24	<0.04	<0.0026	N/A
002 P	DMR - 36	0.003	1619	rain dependant	6.3	ambient	7.6	<1.5	0.3	<0.05	<0.0032	N/A
003 P	DMR - 36	0.003	1882	1yr, 24 hr storm	6.3	ambient	7.6	<0.4	0.3	<0.02	<0.0010	N/A

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

Outfall E/P	Reason Believed Present	Information Source - # of Samples										
			lbs/day	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day	lbs/day	
	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	Other
001	Spillway	10	X					
002	Spillway	10	X					
003	Spillway	Wheel Wash	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, or **(10) Other** (describe below).

Discharge of stormwater from surface mine.

XVIII. PROPOSED NEW OR INCREASED DISCHARGES

A. Pursuant to ADEM Admin. Code Chapter 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 (XVII.B.), ADEM Form 311-Alternative Analysis, and either ADEM Form 312 or ADEM Form 313-Calculation of Total Annualized Project Costs (Public-Section 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. **Attach additional sheets/documentation and supporting information as needed.**

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

This discharge will be removing suspended solids from stormwater runoff.

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

This site contributed to the employment of 4 to 6 contract miners and truckers. The renewal of this permit will maintain their wage level under this contract and help them stay fully employed. Furthermore, material from this site provides the critical ingredient to a brick manufacturing plant that employs over 50 people.

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

The loss of this mine site will result in the reduction of 4 to 6 contract miners wages. This mine site supports our brick manufacturing operations employing over 50 people. The loss of this material could have a serious impact on the plant operations and employment.

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

Income taxes are the primary taxes paid. However those amounts are not available to us.

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

In addition to employment, maintaining the water quality of this discharge provides a public service for those individuals who use the local streams for agriculture or recreation.

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

The community (local gas stations) will benefit from sales of groceries and fuel to our workers as well as fuel sales to the haul trucks.

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

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

No spillpipe is to be used, discharge is from spillway only.
Spillway is sized for 100-yr / 24-hr storm event.
No basins are in series.
No stream crossings.

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

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

This structure (basin) is a sediment sump off a wheel wash
No spillpipe is to be used, discharge is from spillway only
No basins are in series
No stream crossings

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

Y	N	N/A	
X			PE Seal with License #
X			Name and Address of Operator
X			Legal Description of Facility
			General Information:
X			Name of Company
X			Number of Employees
X			Products to be Mined
X			Hours of Operation
X			Water Supply and Disposition
			Topographic Map:
X			Mine Location
		X	Location of Prep Plant
X			Location of Treatment Basins
X			Location of Discharge Points
X			Location of Adjacent Streams
			1"- 500' or Equivalent Facility Map:
X			Drainage Patterns
X			Mining Details
X			All Roads, Structures Detailed
X			All Treatment Structures Detailed
			Detailed Design Diagrams:
X			Plan Views
X			Cross-section Views
X			Method of Diverting Runoff to Treatment Basins
			Narrative of Operations:
X			Raw Materials Defined
X			Processes Defined
		X	Products Defined
			Schematic Diagram:
X			Points of Waste Origin
X			Collection System
X			Disposal System
			Post Treatment Quantity and Quality of Effluent:
X			Flow
X			Suspended Solids
		X	Iron Concentration
X			pH
			Description of Waste Treatment Facility:
X			Pre-Treatment Measures
X			Recovery System
X			Expected Life of Treatment Basin
X			Schedule of Cleaning and/or abandonment
			Other:
X			Precipitation/Volume Calculations/Diagram Attached
X			BMP Plan for Haul Roads
X			Measures for Minimizing Impacts to Adjacent Stream i.e., Buffer Strips, Berms, etc.
X			Methods for Minimizing Nonpoint Source Discharges
X			Facility Closure Plans
X			PE Rationale(s) For Alternate Standards, Designs or Plans

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

There is no prep plant. No products (bricks) are manufactured at this location. Iron is not a contaminant of concern.

XXI. 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 NPDES Permit prior to commencement of any land disturbance. Such coverage may be requested via this ADEM Form 315.

The applicant is advised to contact:

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

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

Water Division
Alabama Department of Environmental Management
Post Office Box 301463
Montgomery, Alabama 36130-1463
Phone: (334) 271-7823
Fax: (334) 279-3051
h2omail@adem.alabama.gov
www.adem.alabama.gov

XXII. 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."

Address PO Box 3547, Johnson City, TN 37602

PE Registration # 37706

Name and Title (type or print) Stephan Wyse, Environmental Engineer

Phone Number 423-282-4661

Signature Stephan Wyse

Date Signed 12/3/18

XXIII. RESPONSIBLE OFFICIAL SIGNATURE*

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

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

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

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

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

Name (type or print) Kevin Ham Official Title Vice President - Engineering & Research

Signature Kevin Ham Date Signed 12.4.2018

*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.

GENERAL SHALE BRICK, INC.
OFFICERS AND DIRECTORS
01-01-2018

***OFFICERS**

Charles L. Smith – President & CEO
Mark S. Kinser – Executive Vice President
Dan Green – Vice President - Manufacturing
John Hammett – Vice President – Sales
Kevin Ham – Vice President – Engineering & Research
Jonathan C. Bailey – Secretary/Treasurer
Ronald E. Berry – Controller

***DIRECTORS**

Charles L. Smith
Mark S. Kinser
Kevin Ham
Willy Van Riet**

***All of the above officers' and directors' address is: 3015 Bristol Highway**
Johnson City, TN 37601

**** Except this director's address is: Wienerbergstrasse 11**
Wienerberg City, Vienna
Austria A-1100

Discharge Characterization

General Shale Brick, Inc.
Lumpkin Mill Mine
Cherokee County, AL

Outfall 002

Area Outfall 002	2,391,444	ft^2	
Area Outfall 001	1,956,314	ft^2	
Area Scaling Factor	1.2		
Ave Flow 001	0.9	gal/min	36 months of DMRs from 001
Scaled Flow 002	1.1	gal/min	
	Flow		
	0.003	**cfs**	
	217	ft3/day	
	1,619	**gpd**	
Ave TSS	21.5	mg/l	36 months of DMRs from 001
TSS	**0.3**	**lb/day**	

Outfall 003

Area	1,525	ft^2	
	0.04	acres	
Rain*	3.3	in	
	Flow		
	0.003	**cfs**	
	252	ft3/day	
	1,882	**gpd**	Calculated
Ave TSS	21.5	mg/l	36 months of DMRs from 001
TSS	**0.3**	**lb/day**	

*Rain 3.3 in/day of rain (1yr, 24hr)
Technical Paper No. 40, SCS.

6.244E-05 $(lb/ft^3)/(mg/l)$ conversion for TSS load

POLLUTION ABATEMENT / PREVENTION PLAN

LUMPKIN MILL MINE

CHEROKEE COUNTY, ALABAMA

General Shale Brick

Building The American Dream®

JOHNSON CITY, TENNESSEE

ALABAMA LICENSED No. 37706 PROFESSIONAL ENGINEER STEPHAN WYSE

October 2008
Revised December 2018

I. Introduction

This Pollution Abatement/Prevention (PAP) Plan is a required part of an application for a NPDES Permit. The General Shale Brick, Inc. Lumpkin Mill mine will be located predominately in Section 11, T11S, R11E, Cherokee County, Alabama. A topographic map outlining this location is provided with this PAP. This application is being prepared in accordance with the rules and regulations of the Alabama Department of Environmental Management. A thorough field review of the proposed site has been evaluated to determine the potential for acid-drainage, to calculate runoff coefficients, and determine the suitability for mining.

The PAP plan is presented to provide a narrative description of the operation and treatment requirements, as well as drainage maps, design plans, and discharge calculations. The narrative description is intended to address the format as outlined by the ADEM admin. Code R. 335-6-9, as well as present the basis for the designs as further detailed in the PAP. Drawings as presented in the PAP were derived from rules and regulations of the ADEM Admin code R. 335-6-6, Appendix A and B, as well as from other generally accepted design data sources primarily from the U.S. Department of Agriculture's Natural Resources Conservation Service.

II. Operator

The operator of this mine:	General Shale Brick, Inc.
Business Address:	PO Box 3547 Johnson City, TN 37602
Legal Description:	E½ Sec 11, SW¼ of the SW¼ Sec 12, N½ of the NE¼ Sec 14, NW¼ of the NW¼ Sec 13, T11S, R11E Cherokee County, Alabama

III. General Information

This facility will operate five days a week during daylight hours only and will employ approximately three people. The products to be mined are shale and clay. There will be no processing on site, only stockpile(s) of the material to be hauled to the manufacturing plant.

IV. Topographic and Facility Maps

A USGS topographic map indicating the location of the mine, property and permit boundaries, and other features required by Section XII of the permit application is attached.

A site facility map (required by section XIII) indicating topography, areas of excavation, location the proposed shale/clay stockpile(s), proposed topsoil stockpiles, drainage diversionary structures, treatment ponds, fuel tanks, and discharge points is also provided as part of this plan.

V. Method of Diverting Surface Water Runoff

The facility map shows topography and all diversionary structures. The treatment basins are located using natural topography to minimize the construction of diversionary structures. Drainage from spoil, stockpile areas, excavation areas, loading areas, equipment storage, fuel areas, and facility office will be directed to a permitted treatment structure prior to discharging. Any minor areas of disturbance that drainage cannot feasibly be routed to a treatment basin will be graded, vegetated, and have Best Management Practices (BMPs) for the control of non-point source pollution fully implemented and maintained at all times.

The mining process uses scrapers (pans) to remove the shale in thin cuts. Initially the shale is only mined from areas that currently drain to the sediment control basins. Over time, as the shale is removed, the topography is broadened and lowered while the slopes are maintained to ensure the surface water drains toward these basins. The drainage area gradually expands to the size shown in the design data sections.

VI. Raw Materials, Processes, and Products

The materials that will be mined are shale and clay. These materials will be stockpiled on site prior to transport to the brick manufacturing plant for final processing. No processing will occur at the mine.

VII. Schematic Diagram

A schematic diagram showing the stormwater contact with the mine site and the stormwater collection, treatment, and discharge has been provided as part of this PAP.

VIII. Post Treatment Quantity and Quality of Effluent

Runoff calculations have been provided as part of this plan to determine flow and to size the discharge structures. The structures are sized to account for the area of the final disturbed acreage. The treatment basins have been designed to allow adequate settling times for the expected particle sizes to reduce suspended solids concentrations to meet effluent limits. The pH of the effluent will be between 6.0 su and 9.0 su or as allowed by the permit.

IX. Waste Treatment Facilities

The primary method of treatment for the removal of expected pollutants will be settling. The geology of the site indicates that there should be no problems with acid-mine drainage. However, if acid-mine drainage should become a problem, ag-lime (calcium carbonate) or quicklime (calcium oxide) will be properly added to the treatment basins. If it is necessary to add quicklime, the pH of the effluent will be measured after adequate time for mixing and 24 hours later to assure that the treatment does not cause an effluent violation for pH. In addition, records of the pH and amount of quicklime used for treatment will be maintained. If acid-mine drainage becomes a chronic problem ag-lime will be spread in the drainage courses leading to the treatment basins.

The treatment basins at a minimum will provide 0.25 acre-feet of storage for every acre a disturbed land draining to the basin. All trees, brush, boulders, and other objects that would impair compaction will be removed from the basin prior to construction. The minimum width at the top of the dam will be at least 12 feet. The side slopes of the dam will be no steeper than 3:1. At least 80% coverage of annual and perennial grasses will be established on the embankments of the dam. A cutoff trench (core) will be constructed along the center of the dam and will extend at least 2 feet into the bedrock. The cutoff trench will be at least 8 feet wide, the side slopes will be no less than 1:1, and it will be filled with impervious material compacted to 95% compaction standard proctor ASTM. The embankments will be constructed in lifts of less than 12 inches.

No spill-pipes will be used. Each dam will be equipped with spillways to carry peak flow. They are designed to carry flow from the 100-yr, 24-hour storm event. The spillway overflow will be at least 20 feet long, lined with riprap, and the side slopes will be no steeper than 2:1. There will be at least 1.5 feet of freeboard between the maximum spillway design flow elevation and the top of the dam.

The treatment basins are to be maintained until mining has ceased, the site has been reclaimed, and the operator has received written permission from ADEM to remove the treatment basins. Accumulated sediments/sludge in the treatment basins will be removed when the basins have lost 60% of their liquid storage capacity due to sedimentation. The clean-out elevation for Basin 001 is 690' and 685' for Basin 002.

X. Sediment Control for Haul Roads

The access and haul roads will have a sustained grade of no greater than 10%, with a maximum grade no greater than 15% for 300 feet. The outer slope will be no steeper than 2:1 and will maintain 80% coverage of annual and perennial grasses. The haul roads will have water bars and wing ditches installed as needed and will be located such that, where possible, drainage goes to the permitted treatment basins. In the southern section of the property where the drainage can not flow to a treatment basin, effective BMPs will be installed and maintained at all times. There will be no stream crossings at this facility.

A wheel wash is to be installed at the lower end of the entrance/haul road near the public highway. This wheel wash will not use detergent and is meant to clean mud from the tires of the haul trucks prior to entering the highway. A sump/basin will be installed to allow the water from the wheel wash to settle prior to flowing down the ditch. The sump will be sized for the wheel wash pad only and surface water will not be allowed to flow onto or off of this pad.

XI. Location of All Streams Adjacent to Mining Area

The topographic map submitted as part of this plan shows all water bodies. The mining operation will provide a 50-foot buffer zone around streams. If a buffer zone cannot be maintained ADEM will be contacted regarding construction of a designed berm to protect the stream.

XII. Non-Point Source Pollution

All mining areas will be graded such that the drainage from these areas will flow to the basins. Therefore, this operation will not result in non-point sources of pollution.

XIII. Public Water Supply Impoundment

This facility will not discharge to a stream segment classified as a Public Water Supply.

XIV. Spill Prevention Control and Countermeasures Plan

Detailed plan for all onsite chemical/ fuel tanks at attached.

XV. Runoff Calculations

Runoff calculations are based on the U.S. Department of Agriculture's Natural Resources Conservation Service WinTR-55 Urban Hydrology for Small Watersheds design program. Basin sizes are based on ADEM's surface mining rules. All calculations are included in the Design Data section.

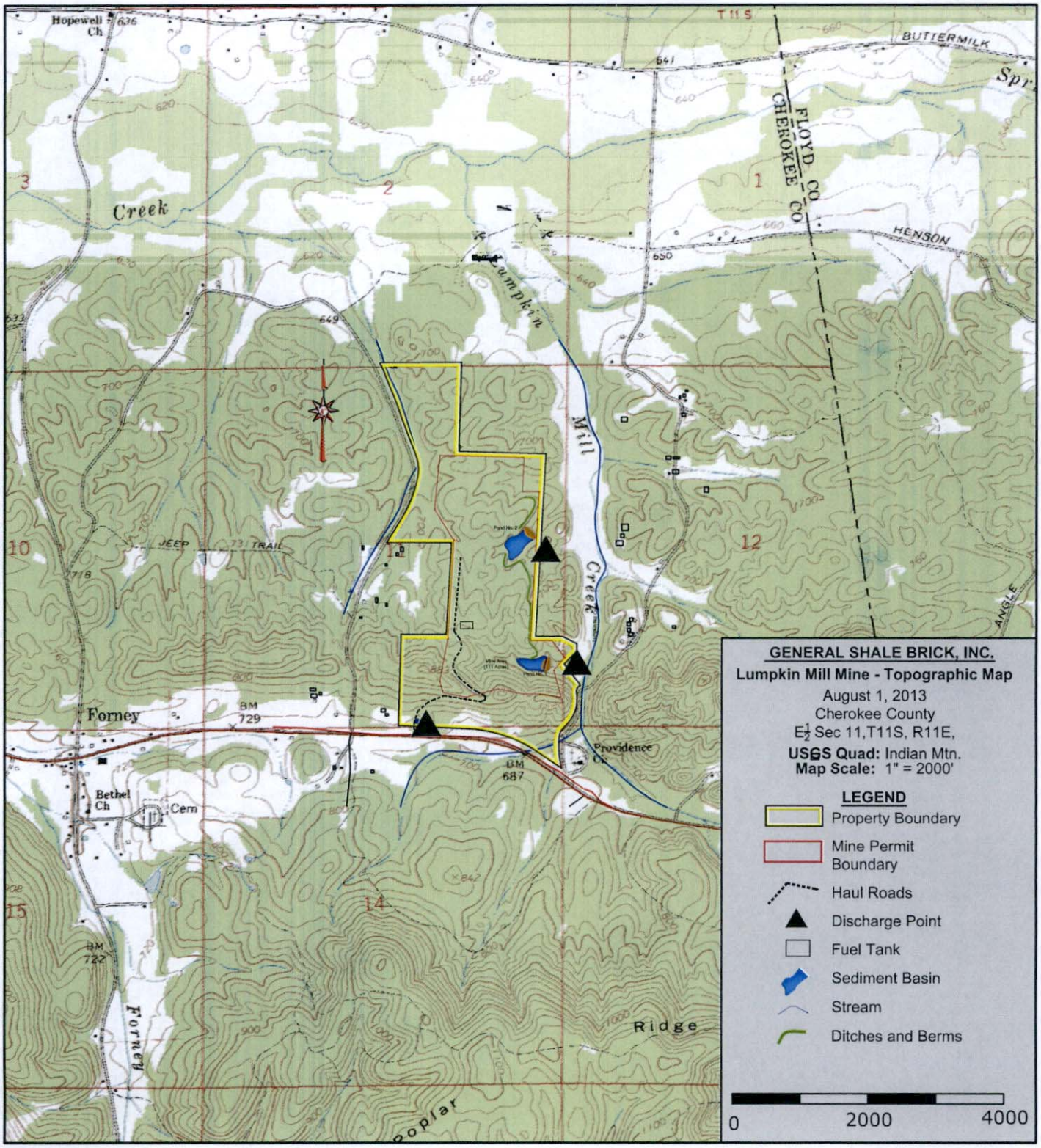
XVI. Reclamation Procedure

As mining is completed in an area, the area shall be dressed to eliminate any large piles of dirt, or low areas that will hold water, with terraces if needed to keep erosion to a minimum. These areas will then be vegetated (grassed). A sump will be maintained at the low end of all reclamation work until a satisfactory stand of grass is obtained.

During construction and reclamation, erosion control measures such as silt fence, riprap, cleared trees, and other acceptable methods will be used as needed to minimize erosion.

XVII. Bmp Typicals (attached)

Basin Layouts
Spillway and Channel Sections
Dam Sections
Berm Sections
Silt Fence
Check Dams
Diversion Ditches
Wheel Wash Sediment Trap/Sump


Hopewell Ch
T11S
BUTTERMILK
FLOYD CO.
CHEROKEE CO.
HENSON
Creek
Lumpkin
Mill
Creek
JEEP TRAIL
Forney
BM 729
Providence Ch
BM 687
Bethel Ch
Cem
BM 722
Forney
Ridge
Poplar
ANGLE
GENERAL SHALE BRICK, INC.
Lumpkin Mill Mine - Topographic Map
August 1, 2013
Cherokee County
E½ Sec 11,T11S, R11E,
USGS Quad: Indian Mtn.
Map Scale: 1" = 2000'
LEGEND
Property Boundary
Mine Permit Boundary
Haul Roads
Discharge Point
Fuel Tank
Sediment Basin
Stream
Ditches and Berms
0
2000
4000

GENERAL SHALE BRICK, INC.

Lumpkin Mill Mine - Facility Map

August 1, 2013

Cherokee County

E½ Sec 11,T11S, R11E,

USGS Quad: Indian Mtn.

Map Scale: 1" = 400'

LEGEND

- Property Boundary
- Mine Permit Boundary
- Haul Roads
- Discharge Point
- Fuel Tank
- Sediment Basin
- Stream
- Ditches and Berms
- Mining Progression
- Buildings

0 400 800

Pond Cleanout

Topsoil in Berm

Pond No. 2

Stockpile

Discharge Point 002

Drainage Area Boundary

Top Soil

Fuel Tank

Stockpile

Topsoil in Berm

Lumpkin Mill Creek

Mine Area (111 Acres)

Pond No. 1

Discharge Point 001

Pond Cleanout

Wheel Wash

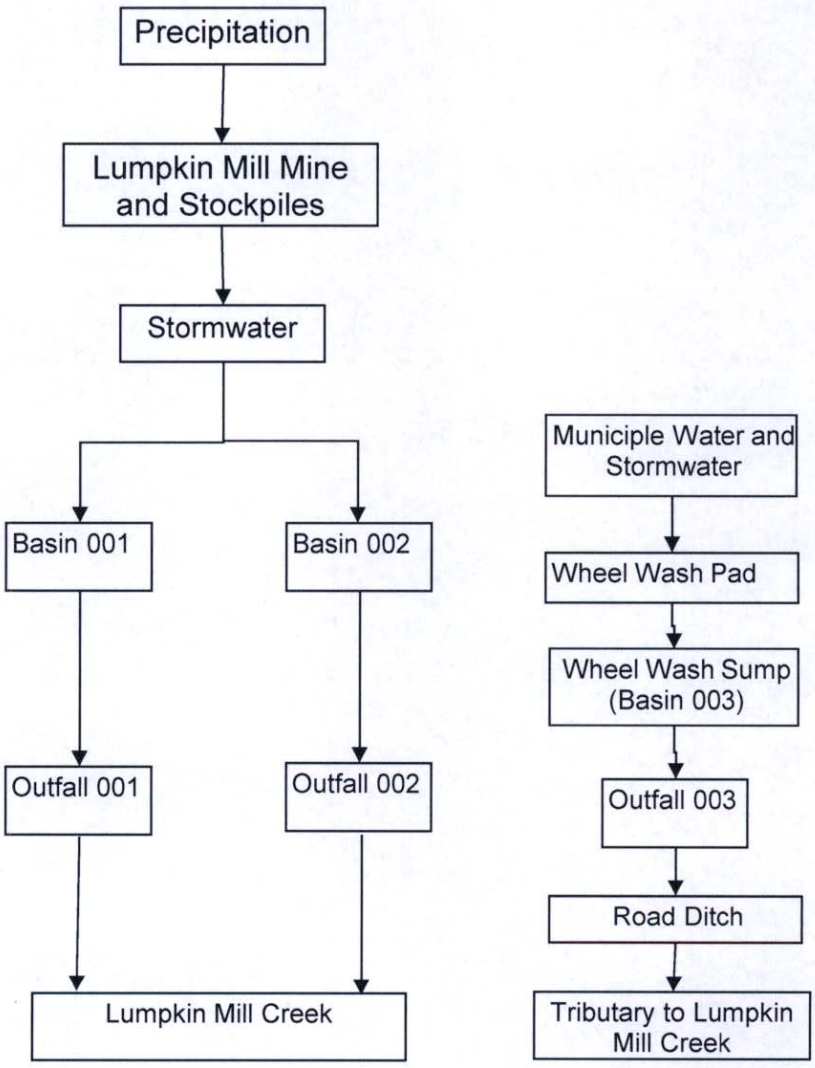
Cou159

Hwy. 411

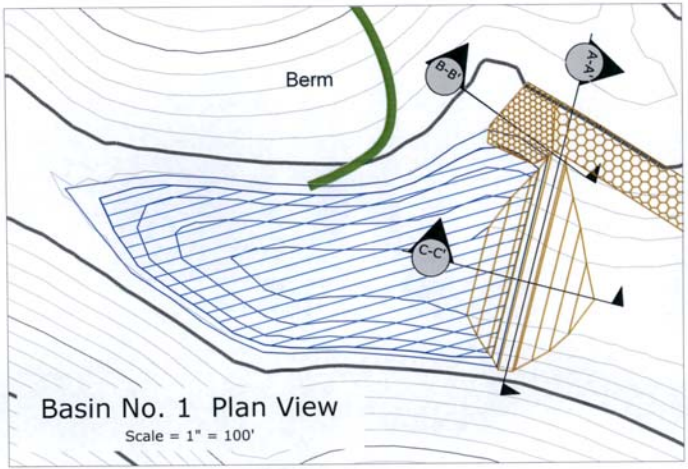
Facility Identification Sign

General Shale Brick, Inc.
Lumpkin Mill Mine

Flow Schematic



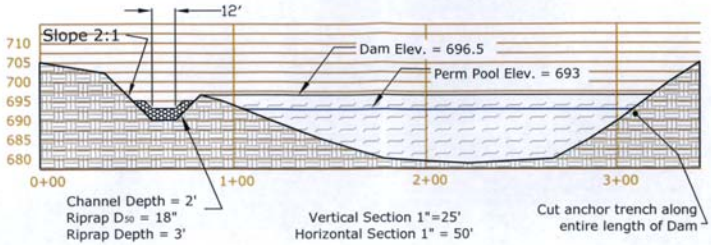
DESIGN DATA BASIN 001



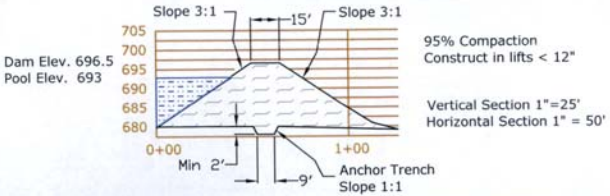
Basin No. 1 Plan View

Scale = 1" = 100'

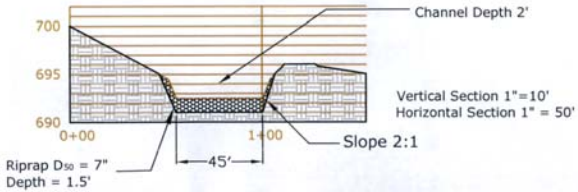
Basin 1 Spillway Channel Section A-A'



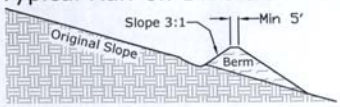
Basin 1 Dam Section C-C'



Basin 1 Spillway Section B-B'



Typical Run-off Diversion Berm



BASIN NO. 1 DETAILS	LUMPKIN MILL MINE
	CHEROKEE CO., AL
	Scale: As Shown — Oct. 1, 2008
GENERAL SHALE BRICK, INC.	

General Shale Brick, Inc.
BASIN DESIGN CALCULATIONS
Cherokee County, AL
MINE NAME Lumpkin Mill
PERMIT NUMBER:
BASIN NUMBER: 001

Basin Design

AREA

Area	Acres
Entire Watershed	45.0
Disturbed Area	42.0

Basin sized to 0.25 acre-ft per acre of drainage (ADEM Surface Mining Rules)
Spillway and Channel sized for the 100-yr / 24-hr storm event

BASIN VOLUME

Vol_{Basin} = 0.25 acre-feet * (Disturbed Acreage) * 43560 ft^2/acre

Vol_{Basin} = 457,867 ft^3
10.5 ac-ft

Disturbed Acreage= 42.0 acres

BASIN SIZE CALCULATION (Contour method)

Calc Vol 495481 ft^3 1.08 times bigger than required

Start at Bottom of Basin (Depth = 0) determine area from map per contour

	Depth of Basin	Area	Ave Area*	Contour Interval	Interval Volume	Cum Vol	Basin Volume Indicator	Depth Elev.	Sediment Cleanout Depth
Bottom	0	12821			0	0		680	690
	5	32726	22010	5	110051	110051		685	
	10	52017	42001	5	210003	320054		690	
	13	**65181**	58475	3	175426	495481	Use	693	
	13		21727	0	0	495481			
			0		0	495481			
			0	0	0	495481			
			0	0	0	495481			
Top			0	0	0	495481			
			0	0	0	495481			

* Conic Method for Reservoir Volumes
(Area1 + Area2 + (SQRT (Area1 * Area2))) * 1/3

Spillway, Diversion Ditch, and/or Culvert Design

PEAK DISCHARGE VIA WinTR-55 SCS

Q_{50} = 309.6 Ft^3/sec

Q_{100} = 338.6 Ft^3/sec

Flow needed

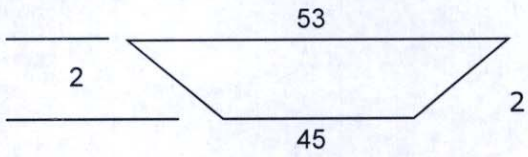
SPILLWAY

Spillway Weir should be 2' deep and 45' wide at the base.
Spillway Channel should be 2' deep and 12' wide at the base.

Spillway Weir

Q_{weir} = 356.4 Ft^3/sec

Flow provided



Broad-Crested Weir Formula
$Q_{weir}=C*L*H_1^{1.5}$
C=2.8
L=Length of Spillway Weir
H_1=Height of Flow

$Q_{weir} > Q_{100}$? Yes

Spillway Channel

$Q_{channel}=(1.486/n)*A*R_H^{2/3}*S^{1/2}$

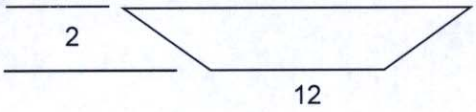
$Q_{channel}$ = 360.7 Ft^3/sec

Flow provided

Length	260	ft
Elev. Drop	15	ft
S = Slope	0.058	ft/ft
Wetted Perimeter	20.9	
R_H = Hydraulic Radius	1.53	ft
n = Manning Number	0.042	riprap
A = Area	32	ft^2

↳ based on section below

Channel Cross-section in feet



$Q_{channel} > Q_{100}$? Yes

Riprap (Channel)

$D_{50}=\gamma*d*S/5$

Bottom

D_{50} = 1.440 ft
17.3 in

γ = 62.4 lb/ft^3 Water Density
d = 2.0 ft Depth
S = 0.058 ft/ft Slope

2 :1 side slope

Side Slope D_{50} = Bottom D_{50} * K1/K2
K1 = from Chart
$K2 = (1-\sin^2(\varphi)/\sin^2(\theta))^{1/2}$

K1 = 0.78 φ = 26.6 deg 0.46 rad
K2 = 0.74 θ = 41.5 deg 0.72 rad
Side Slope D_{50} = 1.52 ft
18 in

WinTR-55 Current Data Description

--- Identification Data ---

User: Gen Shale
Project: Lumpkin Mill 001
SubTitle: Calculations for Basin 001
State: Alabama
County: Cherokee
Filename: G:\RealEstate\Wyse\Rome\Alabama\Lumpkin Mill 001.w55

Date: 8/2/2013
Units: English
Areal Units: Acres

--- Sub-Area Data ---

Name	Description	Reach	Area(ac)	RCN	Tc
Area 001		Reach 1	44.9	90	.142

Total area: 44.90 (ac)

--- Storm Data --

Rainfall Depth by Rainfall Return Period

2-Yr (in)	5-Yr (in)	10-Yr (in)	25-Yr (in)	50-Yr (in)	100-Yr (in)	1-Yr (in)
3.8	4.9	5.7	6.5	7.2	7.8	3.3

Storm Data Source: Cherokee County, AL (NRCS)
Rainfall Distribution Type: Type II
Dimensionless Unit Hydrograph: <standard>

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Gen Shale

Lumpkin Mill 001
Calculations for Basin 001
Cherokee County, Alabama

Watershed Peak Table

Sub-Area or Reach Identifier	Peak Flow by Rainfall Return Period 50-Yr (cfs)	100-Yr (cfs)
SUBAREAS		
Area 001	363.88	397.32
REACHES		
Reach 1	363.88	397.32
Down	309.55	338.59
Reach 2	309.55	338.59
Down	309.43	338.48
OUTLET	309.43	338.48

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Calculations for Basin 001
Cherokee County, Alabama

Structure Output Table

Reach Identifier / Structure Identifier	Peak Flow (PF), Storage Volume (SV), Stage (STG) by Rainfall Return Period 50-Yr	100-Yr
Reach: Reach 1		
Weir : Basin 001		
45(ft)		
PF (cfs)	309.55	338.59
SV (ac ft)	2.92	3.13
STG (ft)	1.80	1.92

← 2' OK

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Gen Shale

Lumpkin Mill 001
Calculations for Basin 001
Cherokee County, Alabama

Sub-Area Summary Table

Sub-Area Identifier	Drainage Area (ac)	Time of Concentration (hr)	Curve Number	Receiving Reach	Sub-Area Description
Area 001	44.90	0.142	90	Reach 1	

Total Area: 44.90 (ac)

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Gen Shale

Lumpkin Mill 001
Calculations for Basin 001
Cherokee County, Alabama

Sub-Area Time of Concentration Details

Sub-Area Identifier/	Flow Length (ft)	Slope (ft/ft)	Mannings's n	End Area (sq ft)	Wetted Perimeter (ft)	Velocity (ft/sec)	Travel Time (hr)
Area 001							
SHEET	100	0.1300	0.150				0.071
SHALLOW	250	0.2400	0.050				0.009
SHALLOW	1134	0.1000	0.050				0.062
						Time of Concentration	.142

==========

Gen Shale

Lumpkin Mill 001
Calculations for Basin 001
Cherokee County, Alabama

Sub-Area Land Use and Curve Number Details

Sub-Area Identifier	Land Use	Hydrologic Soil Group	Sub-Area Area (ac)	Curve Number

Area 001	Fallow Bare soil		C	42	91
	Woods - grass combination	(poor)	C	2.9	82
	Total Area / Weighted Curve Number			44.9	90

Reach Channel Rating Details

Reach Identifier	Reach Length (ft)	Reach Manning's n	Friction Slope (ft/ft)	Bottom Width (ft)	Side Slope
Reach 1	(This reach is a structure: Basin 001)				
Reach 2	260	0.042	0.058	12	2 :1

Reach Identifier	Stage (ft)	Flow (cfs)	End Area (sq ft)	Top Width (ft)	Friction Slope (ft/ft)
Reach 1	(This reach is a structure: Basin 001)				
Reach 2	0.0	0.000	0	12	0.058
	0.5	32.841	6.5	14	
	1.0	107.036	14	16	
Channel →	2.0	361.707	32	20	
	5.0	2035.933	110	32	
	10.0	8641.101	320	52	
	20.0	41820.751	1040	92	

Gen Shale

Lumpkin Mill 001
Calculations for Basin 001
Cherokee County, Alabama

Structure Description - User Entered

Reach Identifier	Surface Area @ Crest (ac)	Height Above Crest (ft)	Surface Area @ Ht Above (ac)	Pipe Diameter (in)	Head on Pipe (ft)	Weir Length (ft)
Reach 1	1.5	2	1.76			45

Gen Shale

Lumpkin Mill 001
Calculations for Basin 001
Cherokee County, Alabama

Structure Rating Details - Computed

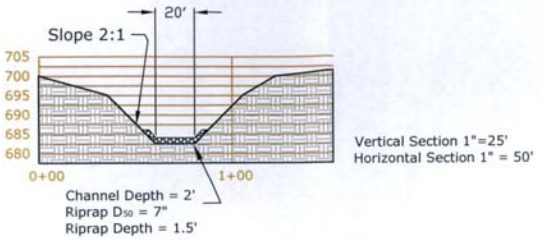
Reach Idendifier	Stage (ft)	Pool Storage (ac ft)	Flows (cfs) @ Weir Length Length #1 45ft	Length #2 ft	Length #3 ft
Basin 001	0	0.00	0.000		
	0.5	0.77	44.548		
	1	1.57	126.000		
Spillway weir →	2	3.26	356.382		
	5	9.13	1408.723		
	10	21.50	3984.470		
	20	56.00	11269.783		

DESIGN DATA BASIN 002

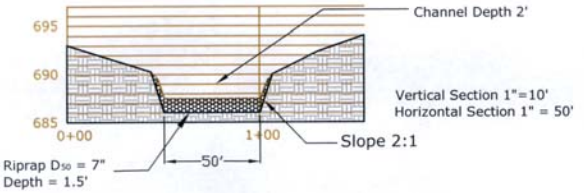
Basin No. 2 Plan View

Scale = 1" = 100'

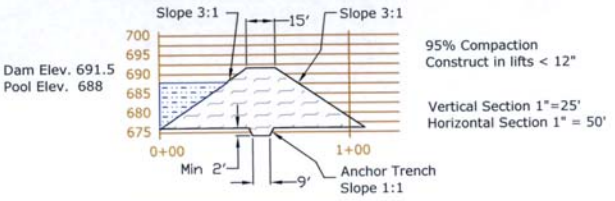
Basin 2 Spillway Channel Section A-A'



Basin 2 Spillway Section B-B'



Basin 2 Dam Section C-C'



BASIN NO. 2 DETAILS	LUMPKIN MILL MINE
	CHEROKEE CO., AL
	Scale: As Shown / Oct. 1, 2008
GENERAL SHALE BRICK, INC.	

General Shale Brick, Inc.
BASIN DESIGN CALCULATIONS
Cherokee County, AL
MINE NAME Lumpkin Mill
PERMIT NUMBER:
BASIN NUMBER: 002

Basin Design

AREA

Area	Acres
Entire Watershed	54.9
Disturbed Area	54.9

Basin sized to 0.25 acre-ft per acre of drainage (ADEM Surface Mining Rules)
Spillway and Channel sized for the 100-yr / 24-hr storm event

BASIN VOLUME

Vol_{Basin} = 0.25 acre-feet * (Disturbed Acreage) * 43560 ft^2/acre

Vol_{Basin} = 598,334 ft^3
13.7 ac-ft

Disturbed Acreage= 54.9 acres

BASIN SIZE CALCULATION (Contour method)

Calc Vol 601266 ft^3 1.00 times bigger than required

Start at Bottom of Basin (Depth = 0) determine area from map per contour

	Depth of Basin	Area	Ave Area*	Contour Interval	Interval Volume	Cum Vol	Basin Volume Indicator	Depth Elev.	Sediment Cleanout Depth
Bottom	0	0			0	0		675	685
	5	40501	13500	5	67502	67502		680	
	10	74423	56609	5	283043	350545		685	
	13	**93072**	83574	3	250722	601266	Use	688	
	13	0	31024	0	0	601266			
			0		0	601266			
			0	0	0	601266			
			0	0	0	601266			
Top			0	0	0	601266			
			0	0	0	601266			

* Conic Method for Reservoir Volumes
(Area1 + Area2 + (SQRT (Area1 * Area2))) * 1/3

Spillway, Diversion Ditch, and/or Culvert Design

PEAK DISCHARGE VIA WinTR-55 SCS

Q_{50} = 342.6 Ft^3/sec

Q_{100} = 374.8 Ft^3/sec

Flow needed

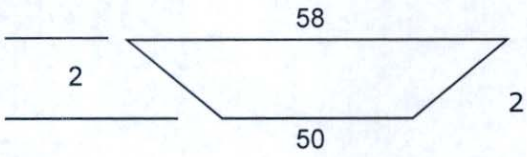
SPILLWAY

Spillway Weir should be 2' deep and 45' wide at the base.
Spillway Channel should be 2' deep and 12' wide at the base.

Spillway Weir

Q_{weir} = 396.0 Ft^3/sec

Flow provided



Broad-Crested Weir Formula
$Q_{weir}=C*L*H_1^{1.5}$
C=2.8
L=Length of Spillway Weir
H_1=Height of Flow

$Q_{weir} > Q_{100}$? Yes

Spillway Channel

$Q_{channel}=(1.486/n)*A*R_H^{2/3}*S^{1/2}$

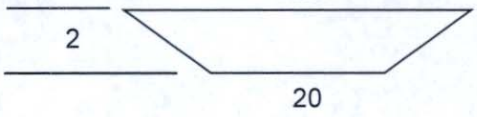
$Q_{channel}$ = 425.0 Ft^3/sec

Flow provided

Length	256	ft
Elev. Drop	6	ft
S = Slope	0.023	ft/ft
Wetted Perimeter	28.9	
R_H = Hydraulic Radius	1.66	ft
n = Manning Number	0.036	riprap
A = Area	48	ft^2

↳ based on section below

Channel Cross-section in feet



$Q_{channel} > Q_{100}$? Yes

Riprap (Channel)

Bottom

$D_{50}=\gamma*d*S/5$

D_{50} = 0.585 ft

7.0 in

γ = 62.4 lb/ft^3 Water Density
d = 2.0 ft Depth
S = 0.023 ft/ft Slope

2 :1 side slope

Side Slope D_{50} = Bottom D_{50} * K1/K2
K1 = from Chart
$K2 = (1-\sin^2(\varphi)/\sin^2(\theta))^{1/2}$

K1 =	0.78	φ =	26.6 deg	0.46 rad
K2 =	0.73	θ =	41 deg	0.72 rad

Side Slope D_{50} = 0.62 ft

7 in

WinTR-55 Current Data Description

--- Identification Data ---

User: Gen Shale
Project: Lumpkin Mill 002
SubTitle: Calculations for Basin 002
State: Alabama
County: Cherokee
Filename: G:\RealEstate\Wyse\Rome\Alabama\Lumpkin Mill 002.w55

Date: 8/2/2013
Units: English
Areal Units: Acres

--- Sub-Area Data ---

Name	Description	Reach	Area(ac)	RCN	Tc
Area 002		Reach 1	54.9	91	.206

Total area: 54.90 (ac)

--- Storm Data --

Rainfall Depth by Rainfall Return Period

2-Yr (in)	5-Yr (in)	10-Yr (in)	25-Yr (in)	50-Yr (in)	100-Yr (in)	1-Yr (in)
3.8	4.9	5.7	6.5	7.2	7.8	3.3

Storm Data Source: Cherokee County, AL (NRCS)
Rainfall Distribution Type: Type II
Dimensionless Unit Hydrograph: <standard>

==========

Gen Shale

Lumpkin Mill 002
Calculations for Basin 002
Cherokee County, Alabama

Watershed Peak Table

Sub-Area or Reach Identifier	Peak Flow by Rainfall Return Period 50-Yr (cfs)	100-Yr (cfs)
SUBAREAS		
Area 002	411.26	448.64
REACHES		
Reach 1	411.26	448.64
Down	342.64	374.77
Reach 2	342.64	374.77
Down	342.64	374.75
OUTLET	342.64	374.75

==========

Calculations for Basin 002
Cherokee County, Alabama

Structure Output Table

Reach Identifier / Structure Identifier	Peak Flow (PF), Storage Volume (SV), Stage (STG) by Rainfall Return Period 50-Yr	100-Yr
Reach: Reach 1		
Weir : *Basin 002		
50(ft)		
PF (cfs)	342.64	374.77
SV (ac ft)	4.04	4.33
STG (ft)	1.79	1.92

← 2' OK

==========

Gen Shale

Lumpkin Mill 002
Calculations for Basin 002
Cherokee County, Alabama

Sub-Area Summary Table

Sub-Area Identifier	Drainage Area (ac)	Time of Concentration (hr)	Curve Number	Receiving Reach	Sub-Area Description
Area 002	54.90	0.206	91	Reach 1	

Total Area: 54.90 (ac)

==========

Gen Shale

Lumpkin Mill 002
Calculations for Basin 002
Cherokee County, Alabama

Sub-Area Time of Concentration Details

Sub-Area Identifier/	Flow Length (ft)	Slope (ft/ft)	Mannings's n	End Area (sq ft)	Wetted Perimeter (ft)	Velocity (ft/sec)	Travel Time (hr)
Area 002							
SHEET	100	0.0500	0.050				0.043
SHALLOW	1336	0.0200	0.050				0.163
					Time of Concentration		.206

==========

Gen Shale

Lumpkin Mill 002
Calculations for Basin 002
Cherokee County, Alabama

Sub-Area Land Use and Curve Number Details

Sub-Area Identifier	Land Use	Hydrologic Soil Group	Sub-Area Area (ac)	Curve Number

Area 002	Fallow	Bare soil	C	54.9	91
	Total Area / Weighted Curve Number			54.9	91

==========

Gen Shale

Lumpkin Mill 002
Calculations for Basin 002
Cherokee County, Alabama

Reach Channel Rating Details

Reach Identifier	Reach Length (ft)	Reach Manning's n	Friction Slope (ft/ft)	Bottom Width (ft)	Side Slope
Reach 1	(This reach is a structure: *Basin 002)				
Reach 2	256	0.036	0.0234	20	2 :1

Reach Identifier	Stage (ft)	Flow (cfs)	End Area (sq ft)	Top Width (ft)	Friction Slope (ft/ft)
Reach 1	(This reach is a structure: *Basin 002)				
Reach 2	0.0	0.000	0	20	0.0234
	0.5	40.204	10.5	22	
	1.0	129.394	22	24	
Channel →	2.0	424.637	48	28	
	5.0	2200.397	150	40	
	10.0	8506.008	400	60	
	20.0	37396.854	1200	100	

==========

Gen Shale

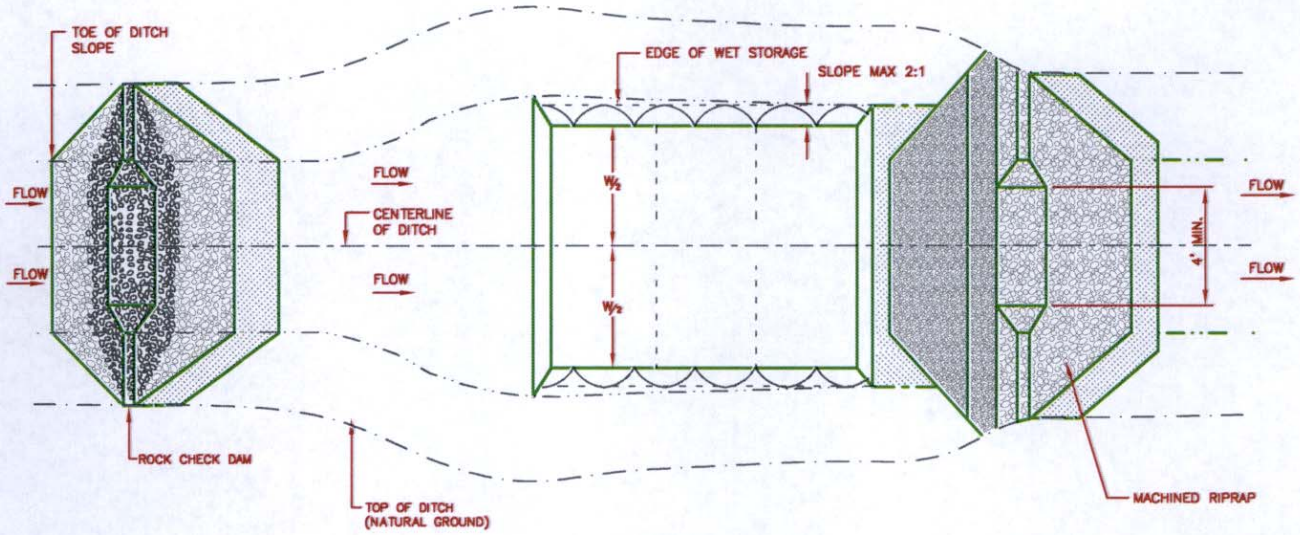
Lumpkin Mill 002
Calculations for Basin 002
Cherokee County, Alabama

Structure Rating Details - Computed

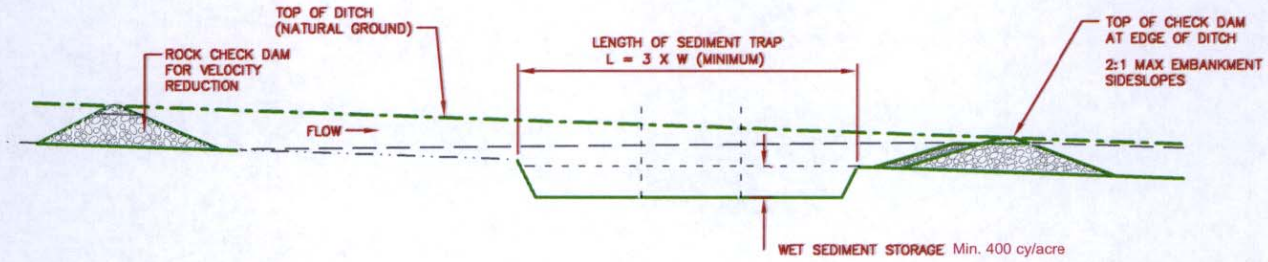
Reach Idendifier	Stage (ft)	Pool Storage (ac ft)	Flows (cfs) @ Weir Length Length #1 50ft	Length #2 ft	Length #3 ft
*Basin 002	0	0.00	0.000		
	0.5	1.09	49.497		
	1	2.20	140.000		
Spillway →	2	4.52	395.980		
	5	12.20	1565.248		
Weir	10	27.40	4427.189		
	20	66.80	12521.981		

==========

DESIGN DATA BASIN 003



PLAN VIEW



PROFILE VIEW

Basin 003

General Shale Brick, Inc.
BASIN DESIGN CALCULATIONS
Cherokee County, AL
MINE NAME Lumpkin Mill
PERMIT NUMBER:
BASIN NUMBER: 003

Basin Design

AREA

Area	Acres
Entire Watershed	0.03
Disturbed Area	0.03

Basin sized to 0.25 acre-ft per acre of drainage (ADEM Surface Mining Rules)
Spillway and Channel sized for the 25-yr / 24-hr storm event

BASIN VOLUME

Vol_{Basin} = 0.25 acre-feet * (Disturbed Acreage) * 43560 ft^2/acre

Vol_{Basin} = 275 ft^3
0.01 ac-ft

Disturbed Acreage= 0.03 acres

BASIN SIZE CALCULATION (EXCAVATED)

Side Slope 2 (Run) : 1 (Rise)

Start at Bottom of Basin (Depth = 0) with Length and Width and set slope
Other dimensions are calculated based on depth intervals that are input

	Depth of Basin	Length	Width	Area	Ave Area*	Depth Interval	Interval Volume	Cum Vol, compare to Vol_{basin}	
Bottom	0	6	1	6			0	0	
	1	10	5	50	24	1	24	24	
	2	14	9	126	85	1	85	110	
	3	**18**	**13**	234	177	1	177	**287**	Use
	4	22	17	374	301	1	301	588	
	5	26	21	546	457	1	457	1045	
	5.5	28	23	644	594	0.5	297	1343	
	6	30	25	750	696	0.5	348	1691	
Top	6.5	32	27	864	806	0.5	403	2094	

* Conic Method for Reservoir Volumes

(Area1 + Area2 + (SQRT (Area1 * Area2))) * 1/3

Spillway, Diversion Ditch, and/or Culvert Design

PEAK DISCHARGE VIA WinTR-55 SCS

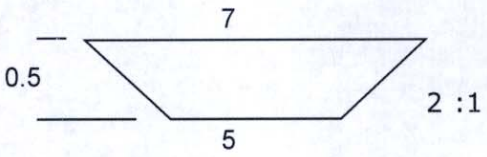
Q_{25} = 0.24 Ft^3/sec
Flow needed

SPILLWAY

Spillway Weir should be 2' deep and 45' wide at the base.
Spillway Channel should be 2' deep and 12' wide at the base.

Spillway Weir

Q_{weir} = 4.9 Ft^3/sec
Flow provided



Broad-Crested Weir Formula
$Q_{weir}=C*L*H_1^{1.5}$
C=2.8
L=Length of Spillway Weir
H_1=Height of Flow

$Q_{weir} > Q_{25}$? Yes

Spillway Channel

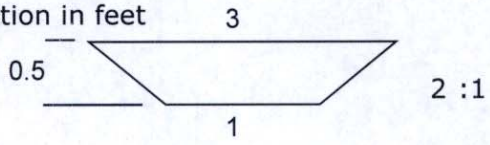
$Q_{channel}=(1.486/n)*A*R_H^{2/3}$

$Q_{channel}$ = 4.6 Ft^3/sec
Flow provided

Length	200	ft
Elev. Drop	10	ft
S = Slope	0.050	ft/ft
Wetted Perimeter	3.2	
R_H = Hydraulic Radius	0.31	ft
n = Manning Number	0.033	riprap
A = Area	1	ft^2

↳ based on section below

Channel Cross-section in feet



$Q_{channel} > Q_{25}$? Yes

Riprap (Channel)

$D_{50}=\gamma*d*S/5$ = Bottom 0.312 ft, 3.7 in

γ =	62.4	lb/ft^3	Water Density
d =	0.5	ft	Depth
S =	0.050	ft/ft	Slope

WinTR-55 Current Data Description

--- Identification Data ---

User: Gen Shale
Project: Lumpkin Mill 003
SubTitle: Calculations for Basin 003
State: Alabama
County: Cherokee
Filename: G:\RealEstate\Wyse\Rome\Alabama\Lumpkin Mill 003.w55

Date: 4/8/2014
Units: English
Areal Units: Acres

--- Sub-Area Data ---

Name	Description	Reach	Area(ac)	RCN	Tc
Area 003		Reach 3	0.03	89	0.1

Total area: .03 (ac)

--- Storm Data --

Rainfall Depth by Rainfall Return Period

2-Yr (in)	5-Yr (in)	10-Yr (in)	25-Yr (in)	50-Yr (in)	100-Yr (in)	1-Yr (in)
3.8	4.9	5.7	6.5	7.2	7.8	3.3

Storm Data Source: Cherokee County, AL (NRCS)
Rainfall Distribution Type: Type II
Dimensionless Unit Hydrograph: <standard>

==========

Gen Shale

Lumpkin Mill 003
Calculations for Basin 003
Cherokee County, Alabama

Watershed Peak Table

Sub-Area or Reach Identifier	Peak Flow by Rainfall Return Period 25-Yr (cfs)
SUBAREAS	
Area 003	0.24
REACHES	
Reach 3	0.24 ← Design Flow
Down	0.24
Reach 4	0.24
Down	0.24
OUTLET	0.24

==========

Calculations for Basin 003
Cherokee County, Alabama

Structure Output Table

Reach Identifier / Structure Identifier	Peak Flow (PF), Storage Volume (SV), Stage (STG) by Rainfall Return Period 25-Yr
Reach: Reach 3	
Weir : 003 Basin 5(ft)	
PF (cfs)	0.24
SV (ac ft)	.00
STG (ft)	.02

← 0.5' OK

Gen Shale

Lumpkin Mill 003
Calculations for Basin 003
Cherokee County, Alabama

Sub-Area Summary Table

Sub-Area Identifier	Drainage Area (ac)	Time of Concentration (hr)	Curve Number	Receiving Reach	Sub-Area Description
Area 003	.03	0.100	89	Reach 3	

Total Area: .03 (ac)

Gen Shale

Lumpkin Mill 003
Calculations for Basin 003
Cherokee County, Alabama

Sub-Area Time of Concentration Details

Sub-Area Identifier/	Flow Length (ft)	Slope (ft/ft)	Mannings's n	End Area (sq ft)	Wetted Perimeter (ft)	Velocity (ft/sec)	Travel Time (hr)
Area 003							
SHEET	15	0.0500	0.050				0.009
SHALLOW	20	0.1500	0.050				0.001
					Time of Concentration		0.1

Gen Shale

Lumpkin Mill 003
Calculations for Basin 003
Cherokee County, Alabama

Sub-Area Land Use and Curve Number Details

Sub-Area Identifier	Land Use	Hydrologic Soil Group	Sub-Area Area (ac)	Curve Number

Area 003	Gravel (w/ right-of-way)	C	.03	89
	Total Area / Weighted Curve Number		.03	89

Gen Shale

Lumpkin Mill 003
Calculations for Basin 003
Cherokee County, Alabama

Reach Channel Rating Details

Reach Identifier	Reach Length (ft)	Reach Manning's n	Friction Slope (ft/ft)	Bottom Width (ft)	Side Slope
Reach 3	(This reach is a structure: 003 Basin)				
Reach 4	20	0.033	0.05	1	2 :1

Reach Identifier	Stage (ft)	Flow (cfs)	End Area (sq ft)	Top Width (ft)	Friction Slope (ft/ft)
Reach 3	(This reach is a structure: 003 Basin)				
Reach 4	0.0	0.000	0	1	0.05
	0.5	4.602	1	3	
	1.0	20.234	3	5	
	2.0	101.067	10	9	
	5.0	980.101	55	21	
	10.0	5842.642	210	41	
	20.0	35900.229	820	81	

Channel →

Gen Shale

Lumpkin Mill 003
Calculations for Basin 003
Cherokee County, Alabama

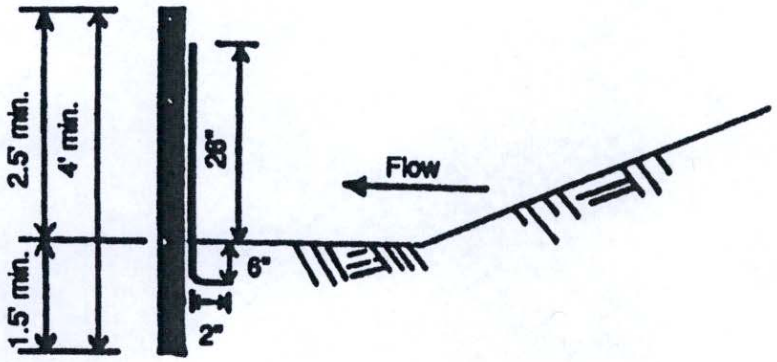
Structure Rating Details - Computed

Reach Idendifier	Stage (ft)	Pool Storage (ac ft)	Flows (cfs) @ Weir Length Length #1 5ft	Length #2 ft	Length #3 ft
003 Basin	0	0.00	0.000		
	0.5	0.01	4.950		
	1	0.02	14.000		
	2	0.08	39.598		
	5	0.46	156.525		
	10	1.78	442.719		
	20	7.03	1252.198		

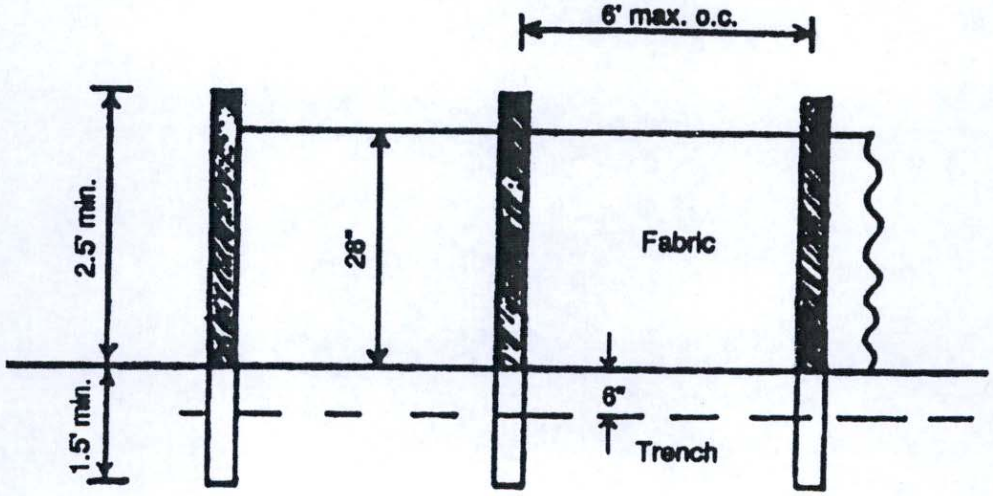
Spillway Weir →

BMP EXAMPLES

Silt Fence – Type A



SIDE VIEW



FRONT VIEW

Source: GA SWCC

Spacing Between Check Dams

L = The distance such that points A and B are of equal elevation

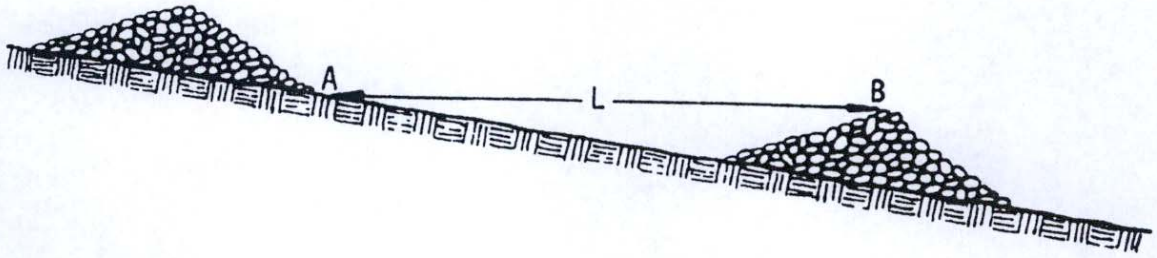
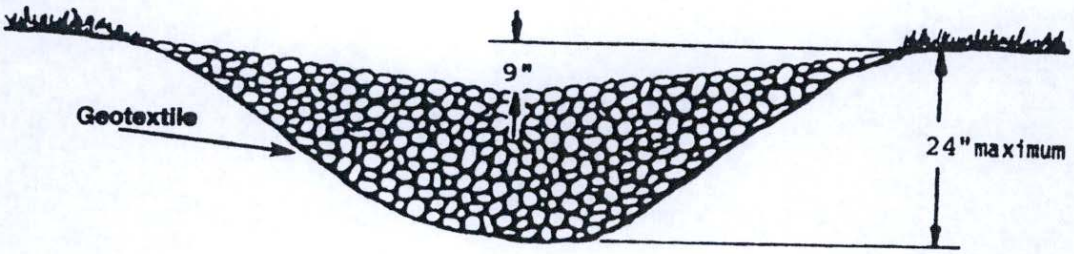
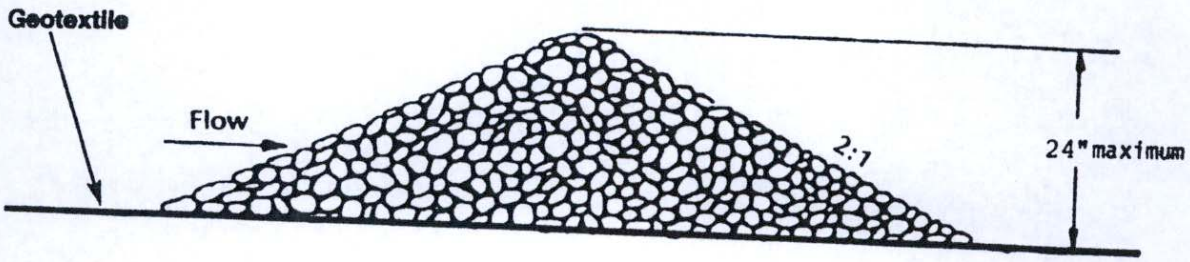


Figure 1

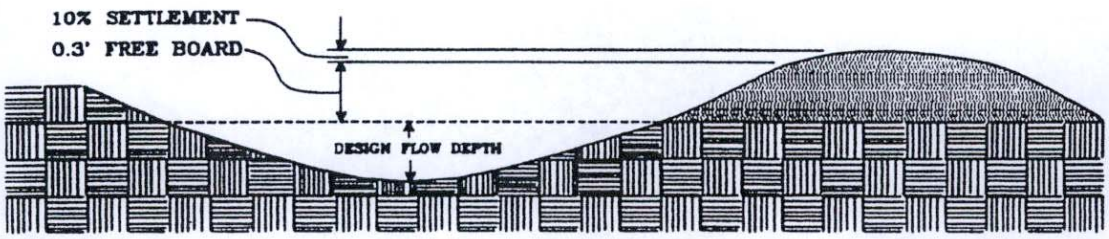
Height Of Check Dams



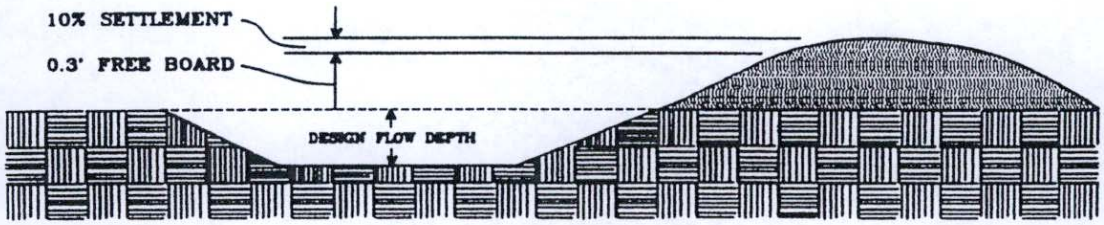


Source: GA SWCCC

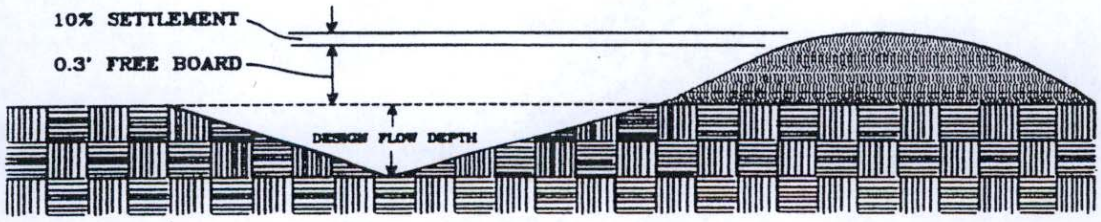
Typical Diversion Cross-Sections



Typical Parabolic Diversion



Typical Trapezoidal Diversion



Typical Vee-Shaped Diversion

Source: VA DSWC

SPILL PREVENTION CONTROL AND COUNTERMEASURE PLAN

GENERAL SHALE BRICK, INC

CHEROKEE COUNTY, AL

LUMPKIN MILL MINE

SPCC PLAN

SPILL PREVENTION CONTROL AND COUNTERMEASURE

General Shale
Building The American Dream®

October 2008
Updated December 2018

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SPILL PREVENTION, CONTROL, AND COUNTERMEASURE PLAN

GENERAL INFORMATION

Name of Operations: General Shale Brick, Inc
Lumpkin Mill Mine

Address of Operations: Hwy. 411, Cherokee County
Forney, AL

Type of Operations: Mining of Shale and Clay

Management Approval to implement this plan as described herein.

Signature: Dan Green

Name: Dan Green

Title: Director of Manufacturing

Signature:

Name: Gregory Bowles

Title: Director of Environment

NEED FOR SPILL PLAN

Fuel/oil storage tanks are not currently used at this mine since it only needs to operate a few months of the year. Fuel is brought in by the mining contractor on an as needed basis and supplied directly to the equipment. However, if tanks were to be used, this Spill Plan has been developed to support that situation and written as if they were already installed.

FACILITY LAYOUT AND OIL STORAGE

The fuel/oil storage tanks at the mine are aboveground tanks with the materials and construction of the tanks compatible with the fluid stored. These tanks are listed in Appendix A with a summary of the capacity, contents, tank type, and spill containment. The location of these tanks is shown on the facility map.

DISCHARGE PREVENTION MEASURES

Routine handling of oil and fuel is primarily accomplished via transport by tanker truck and pump or by drum. The primary discharge prevention measures are 1) inspection and testing of tanks and piping, 2) dispensing fuel at the tank location with an employee supervising the transfer, 3) using auto-shutoff valves on the fuel dispensers, and 4) moving oils that are not piped in closed containers only.

Bulk oil storage tanks are designed and constructed to be compatible with the oil product they are containing and with the temperature and pressure required by the conditions of the oil. The storage tanks have:

- An adequate storage capacity to assure that container will not overfill.
- Secondary containment in the form of a double-walled tank. If a dike is used it will be sized to the volume of the largest tank within the containment area plus sufficient freeboard to allow for precipitation. The secondary containment for each tank is listed in Appendix A.
- A system for determining the liquid level of each tank and to prevent overfilling. Direct vision gauges, periodic gauging, and inspections are used.

All storage areas, vessels (unless permanently closed), and equipment shall be inspected and/or tested according to the following:

> Observances of general storage conditions are made during routine operations (e.g. transferring oil or fuel). The operator will visually inspect the exterior portion of all tanks, valves, supports, and joints for corrosion, leaks, settlement, or any other damage. If a leak is found or if something that could cause a spill is detected, the operator will notify his/her Supervisor immediately who will subsequently contact the Plant Manger.

Filling and unloading oil tanks are covered in the Truck Loading and Unloading section.

DISCHARGE AND FACILITY DRAINAGE CONTROLS

Appropriate containment and/or diversionary structures or equipment to prevent discharges of oil from reaching a navigable watercourse shall be provided. One of the following preventive systems or its equivalent shall be used as a minimum when the possibility of a spill could enter these waters:

1. Double-walled tanks.
2. Dikes, berms, or retaining walls sufficiently impervious to contain spilled material and sized for the capacity of the largest tank in the dike plus freeboard
3. Curbs
4. Culverts, gutters, or other drainage systems
5. Interceptor and/or diversion ditches
6. Equipment sumps
7. Absorbent materials

The specific secondary containment system used at this facility is listed in Appendix A.

Drains from diked areas have valves or other positive means to prevent an oil spill. Valves are manual, open-and-closed design. Valves are locked to prevent vandalism or unintended opening.

The dikes and sumps are inspected at regularly scheduled intervals for accumulations of oil. If oil is found, it will then be removed as quickly as possible and, if feasible, returned to a used oil tank. A vacuum truck, portable pump, absorbent materials, or the most practicable method will be used to remove the oil.

All secondary containment features shall be inspected according to the following:

1. Secondary containment dikes will be inspected during routine operations for evidence of wear or other damage that might affect the integrity of the dike.
2. Any oil found in containment areas will be removed by the most practicable method, i.e., skimming with equipment or absorbent materials, scraping and shoveling, or portable pump.
3. Problems causing oil to leak will be promptly corrected.

Rainwater in diked areas may be drained or pumped to the surface outside the dikes by an operator familiar with this plan only if the rainwater does not have an oil-sheen on the surface or oil sludge/emulsion beneath the surface.

The procedure for the drainage of rainwater from secondary containment is as follows:

1. Visually inspect the water in the secondary containment structures for oil.
2. Remove or segregate the floating hydrocarbons from any water to be discharged as indicated above. Rainwater with emulsified oil or sludge may not be discharged to the surface.

3. Release the rainwater to the surface and remain in the area while the drainage occurs. Do not leave the area with the dike drain valve open.
4. Close the dike drain valve when drainage is complete or when leaving the area.

COUNTERMEASURES FOR DISCHARGE, DISCOVERY, RESPONSE, AND CLEANUP

In the event that an oil spill does occur, the following procedures will be followed:

1. All spills or leaks shall be investigated immediately and the appropriate actions taken to stop, contain, and immediately begin cleaning up the spill. The basic spill response is:
    a. *Determine the source* and type of spill.
    b. *Evacuate* any employees requiring medical attention.
    c. *Isolate the area.*
    d. *Eliminate all sources of ignition.* Extinguish and/or remove the ignition source or channel the spilled material away from the source of ignition.
    e. *Stop the source of the spill if the conditions are safe* (watch for fire, fumes, slippery conditions).
    f. *Contain the spill.* Loose shale is available for the containment of oil spills outside of the containment structures.
    g. *Notify* your Supervisor who shall notify the Plant Manager.
2. In the event of a flowline spill, the appropriate control valves(s) must be closed immediately to stop the flow of oil. Furthermore any equipment using or generating the oil will be shut down at this time.
3. A spill at the tank location would likely run toward the drainage to the east into Basin No. 1. Use shale and/or absorbent materials (socks) to contain the spill away from the basin.
4. In the event of a leaking drum, place the drum so that the leak is facing up. Then contain the spilled material with absorbent materials.
5. Perform or observe proper cleanup measures as directed by the Supervisor in charge. Company and/or contract cleanup crews will be dispatched to the spill site to begin cleanup. A listing of key company personnel, contractors, and local emergency response agencies are presented in Appendix B.
    a. Cleanup procedures and PPE requirements are found in the Material Safety Data Sheets for the spilled material.
    b. Recover spilled material via pump, absorbent materials, or contract vacuum truck.

c. Place oil soaked absorbent materials (like Oil Dry™) and/or soil onto the covered stockpile at the plant.

d. Clean the area of the spill to prevent employee slips and falls. Clean/ remediate the area to prevent contamination of future rain water that may come in contact with the area.

e. Clean the tools used prior to placing them back in to the spill kit.

f. Restock the spill kit(s) to replace the materials used in the spill response and cleanup efforts.

6. If the company crew(s) is unable to adequately contain the spill, the supervisor of the cleanup operations shall notify the Plant Manager. Upon this notification, additional manpower and equipment will be dispatched to the spill and cleanup. The additional manpower options are listed in Appendix B.

Disposal of Recovered Materials

Cleanup materials must be disposed of in accordance with federal and state waste regulations. The Environmental Engineer will determine the proper method for disposal of the spilled materials that cannot be returned to the stockpile (e.g. socks and pads) by developing a disposal profile for submission to a permitted landfill.

Spill Response Contact List and Facility Coordinator

All spills shall be reported to supervisors. If oil has (or could) reach the waters of the State, notify the Plant Manager IMMEDIATELY (See Appendix B).

The Plant Manager will complete the Spill Incident Report (Appendix C) and, as required by law, will notify the regulatory authorities.

Appendix D, "Spill Response Procedures Guide", is a quick reference meant to be readily usage in case of a discharge.

Potential Spill Characteristics

Though unlikely, equipment failure could cause a spill ranging in volume from 0 to 1000 gallons oil. The worst case spill would be a major tank rupture with the rate of flow of oil equal to the volume of the tank per minute (instantaneously). Potential spill events are outlined below. If an oil spill were to occur outside of the containment dike, the expected flow direction is to the east.

Potential Event	Volume Released
Complete failure of a full tank	Up to the tank capacity. See Appendix A for capacities.

Partial failure of a full tank	Up to the tank capacity. See Appendix A for capacities.
Tank overfill	1 to 1,000 gallons
Leaking pipe or valve	1 to 1,000 gallons
Pump rupture or failure	1 to 1,000 gallons

TRAINING OF SPILL PREVENTION PROCEDURES

Personnel are instructed in the following:

1. Operation, maintenance, and inspection of equipment to prevent fluid discharges,
2. Spill containment procedures,
3. Applicable pollution control laws, rules, and regulations,
4. General facility operations
5. Contents of this SPCC plan

The Plant Manager is accountable for spill prevention at this facility. See Appendix B for the key personnel contact list.

SPCC Plan/pollution prevention briefings are conducted as needed to assure that the appropriate operating personnel have an adequate understanding of SPCC Plan requirements. These briefings will include:

1. A reviews of the SPCC Plan
2. Highlight and describe known discharges or failures of the spill equipment or Plan
3. Recently developed precautionary measures

TRUCK LOADING AND UNLOADING

This facility does not have a tank truck loading/unloading rack. However, tank truck transfer operations are continuously monitored for leaks or spills and must be directly supervised by the tank truck driver, a mine operator, or supervisor familiar with the transfer operations.

The person(s) supervising the transfer operations must make certain that all hoses are disconnected and valves tightly closed before the tanker is moved.

Appendix A

Oil Storage and Containment

Contents	Tank Location	Tank Capacity	Tank Construction	Secondary Containment	Tank Drain Security
Diesel	Near Stockpile	1000 gal.	Steel Double-Wall	N/A	Plugged
Oil	Near Stockpile	30 – 55 gal.	Steel	Earthen Berm	N/A

Appendix B

Response Companies, Personnel, and Regulatory Agencies

Response Companies, Personnel, and Regulatory Agencies

KEY PERSONNEL

1. Donny Cox, Plant Manager 706-802-0777
2. Dustin Mayberry, Assistant Plant Manager 706-802-0777
3. Kevin Ham, Vice President 423-952-4217

SUB-CONTRACTORS AVAILABLE ON A TWENTY-FOUR (24) HOUR BASIS:

Deep South Industrial Services, Inc.
515 Industrial Drive
Rockmart, GA 30153
678-757-1022

HEPACO Chattanooga Office
7420 Lee Highway, Chattanooga, TN 37421
800-841-4542
423-624-9210

GOVERNMENT AGENCIES

- Fire Department 911

For Oil Spills to Waters of the United States

- The U. S. EPA National Response Center
  Phone: 1-800-424-8802 (24 hours a day)

- State of Alabama, Department of Environmental Management
  Phone: 1-800-843-0699 or
  1-205-942-6168 (Birmingham Field Office - Business Hours)

For Oil Spills greater than 1000 gallons (or greater than 42 gallons twice in a 12 month period) and reaching Waters of the U.S.

Submit the information in the Spill Incident Report – Appendix C for these types of spills within 60 days of the spill occurrence to:

EPA Regional Administrator, US EPA Region IV
Sam Nunn Atlanta Federal Center
61 Forsyth Street, SW
Atlanta, GA 30303-8960

Appendix C

Spill Incident Report

SPILL INCIDENT REPORT

1. Complete this form
2. Use information to report spill as indicated in the SPCC Plan
3. File form with the SPCC Plan

Site: General Shale Brick – Lumpkin Mill Mine

Address: Hwy 411, Cherokee County

Forney, AL

Spill Date: _____ Time: _____

Material Spilled: _____
Oil Wastewater Antifreeze Other

Total Amount spilled (Gallons)_____
If greater than 1000 gallons or this is the second spill of 42 gallons or more this year then submit this report to EPA Region IV

Amount Spilled to Creek (if necessary):_____

Source of Spill_____

Media (dirt / gravel) Receiving Spill_____

Cause of Spill _____

_____

Damages/Injuries_____

Actions to Stop Spill and Cleanup _____

_____

Was Evacuation Needed: Yes No

Names of Individuals or Organizations Contacted _____

_____

If this report is submitted to EPA Region IV include description of facility (maps, flow direction)

AL DEM ..... (800) 843-0699 or (205) 942-6168

EPA Nat'l Response Center ..... (800) 424-8802

Appendix D

Spill Response Reference Guide

Spill Response Reference Guide

Spill Response

1. Identify spilled material
2. Evacuate any injured personnel
3. Isolate the area
4. Note potential hazards: flammable vapors, slippery footing
5. Stop the source of the spill if conditions are safe
6. Note direction of flow of the spilled material
7. Contain spilled material using absorbent material, temporary dikes using a front-end loader or dozer
8. Cleanup oil and oil soaked material
9. Contact Environmental Engineer to determine proper disposal
10. Plant Manager or Environmental Engineer will report spill as indicated in the "Spill Response Contact List" section

Personal Protective Equipment

Boots, Gloves, Safety Glasses

Response Equipment (Stored in Mining Office)

Absorbent Materials – Shale, Pads, Socks
Shovels
Drums
Front-End Loader- Dirt