

State of Mississippi
Surface Mining and Reclamation
PERMIT

TO CONDUCT SURFACE MINING OPERATIONS
IN ACCORDANCE WITH THE
MISSISSIPPI SURFACE MINING AND RECLAMATION LAW
MISS. CODE ANN. § 53-7-1 ET SEQ.

THIS CERTIFIES THAT

EP Engineered Clays Corporation

has been granted permission to
conduct surface mining operations in accordance with the requirements and conditions
set forth herein in the operation of the

Fowlkes Mine
Monroe County, Mississippi.

This permit is issued in accordance with the provisions of the Mississippi Surface Mining and
Reclamation Law, Miss. Code Ann. § 53-7-1 et seq., and the regulations and standards adopted
and promulgated thereunder.

MISSISSIPPI ENVIRONMENTAL QUALITY PERMIT BOARD


AUTHORIZED SIGNATURE

MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

Issued: September 22, 2017
Expires: Five years from date of issuance

Permit No. P88-013T
Application No. P88-013T
AI No. 10674

A. General Provisions

1. The definitions and provisions contained in the Mississippi Surface Mining and Reclamation Act ("the Act") and the Mississippi Surface Mining and Reclamation Rules and Regulations ("the Regulations") shall be applied in interpreting any provision of this permit.
2. The permittee shall conduct all surface mining and reclamation operations as described in the complete application and any additional operational or reclamation plans submitted to and approved by the Mississippi Department of Environmental Quality ("MDEQ"), while complying with the Act and the Regulations, unless otherwise provided as a variance in the following provisions. The complete application and any additional operational or reclamation plans submitted to and approved by MDEQ currently or in the future are incorporated herein by reference. The provisions and conditions of this permit enforce the provisions of the Act and the Regulations, and no provision of this permit is intended to exempt the permittee from, or to modify, any provision of the Act, the Regulations, or any other Mississippi or federal law or regulation unless the provision is listed in section E of this permit regarding Variances.
3. The permittee shall allow any authorized representatives of MDEQ, without advance notice or a search warrant, and without delay, to have the rights of entry provided in the Regulations.
4. The permittee shall conduct surface mining and reclamation operations:
 - A. Only on those lands specifically designated on the maps submitted and approved in the complete application;
 - B. Only within the effective dates of the permit; and
 - C. Only on those lands which are subject to the performance bonds or other equivalent guarantee in effect at the time of mining pursuant to the Regulations.
5. The provisions of this permit are severable. If any provision of this permit is held invalid, or if any statutory or regulatory provision upon which such permit provision is based is held invalid or suspended, repealed or amended, such permit provision shall be null, void and ineffective for all purposes, but the remainder of this permit shall not be affected thereby.
6. 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 private property or any invasion of personal rights, nor any infringement of federal, state, or local laws or regulations.
7. The permittee shall comply with all conditions of this permit.

8. The filing of a request by MDEQ or the permittee for a permit modification, revocation and reissuance, transfer, or termination or the notification of planned changes or anticipated noncompliance on the part of the permittee does not stay the applicability or enforceability of any permit condition.
9. This permit is not transferable to any person except after notice to and by approval of the Permit Board.
10. The term of this permit is five (5) years from the date issued. Upon expiration, this permit grants no further authority to the permittee to conduct surface mining operations at this site.
11. No officer, agent, employee or other person in any way associated with the permittee shall, except as permitted by law, willfully resist, prevent, impede, or interfere with MDEQ or any of its employees in the performance of duties pursuant to the Act or the Regulations.
12. No blasting operations are approved for this permit.
13. The permittee shall obtain, prior to commencing mining operations, all other required permits from all other local, state and federal agencies.

B. Duties and Requirements

1. Duty to Comply. The permittee shall comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Act and the Regulations and is grounds for enforcement action, permit termination, revocation and reissuance, modification, or for denial of a permit renewal application.
2. The permittee shall comply with the permittee's surface mining plan, reclamation plan and the standards specified in Miss. Code Ann. § 53-7-37 (Rev. 2003).
3. Duty to reapply. If the permittee wishes to continue an activity allowed by this permit after the expiration date of this permit, the permittee must submit a complete application for renewal of the permit at least 60 days before this permit expires.
4. Duty to mitigate. The permittee shall take all reasonable steps to minimize or correct any adverse impact on the environment resulting from noncompliance with this permit.
5. Proper Operation and Maintenance. The permittee shall at all times properly operate and maintain all equipment and systems which are installed or used by the permittee to achieve compliance with the conditions of this permit and the application as submitted to MDEQ and approved by the Mississippi Environmental Quality Permit Board.

6. Duty to provide information. The permittee shall furnish to MDEQ, within a reasonable time, any relevant information which MDEQ may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit.

C. Site-Specific Operating Conditions

1. The permittee is authorized to open pit mine 34 acres for bentonite clay in Section 26, Township 15 South, Range 7 East, Monroe County.
2. This is the initial permit for this site.
3. Buffer Zones. Also see Part E, Variances and Waivers

The Regulations prohibit mining within 100 feet of the outside right-of-way of any public road, except where mine access roads or haul roads join such right-of-way line; within 300 feet of any occupied dwelling, public building, school, church, community or institutional building; within 100 feet of a cemetery; or, when a highwall will be created and the excavation exceeds thirty feet in depth, within twenty-five feet plus one and one half times the depth of the excavation from a permit boundary. If the excavation is less than thirty feet in depth and a highwall will be created, the distance from the permit boundary shall follow the distance chart in the Regulations at §400(d)(4). The Permit Board may modify these buffer zones, and allow mining within them, upon receipt of written permission from the governmental entity having authority over the subject road, or the owner or occupant of the subject dwelling.

- A. Mining will not take place within 100 feet of the outside right-of-way of a public road.
 - B. Mining will not take place within 100 feet of a cemetery.
 - C. Mining will not take place within 300 feet of an occupied dwelling.
 - D. Mining will not take place within 217 feet of the permit boundary.
4. Permit boundaries shall be marked and durable posts shall be placed at the corners of the permit area. The posts shall be painted or flagged to be readily visible during the life of the operation.
 5. This permit may be mined to a maximum depth of 128 feet.
 6. Dust shall be controlled by water sprayed on the haul roads.

7. Terraced slopes, brush barriers, silt fence, and any other Best Management Practices required will be used for sediment control.
8. Reclamation Schedule. Concurrent reclamation is required by the Act and the Regulations.
 - A. Begin clearing: Done
 - B. Begin mining: Done
 - C. Complete mining: 2018
 - D. Reclamation will be concurrent with completion of mining of any segment of the permit.
 - E. Complete reclamation: 2019
9. Explosives will not be used.
10. The permittee must obtain any necessary permits through the MDEQ Office of Pollution Control to discharge impacted stormwater or processed water into a specific Water(s) of the State and must do so in accordance with effluent limitations, monitoring requirements, and other conditions set forth in a State of Mississippi Waste Pollution Control Permit to Discharge Wastewater in Accordance with the National Pollutant Discharge Elimination System.
11. Reclamation Plan
 - A. The topsoil shall be segregated and stored in stockpiles which will be protected with grass cover adequate to prevent erosion. The use of the topsoil during reclamation will be to respread it over areas requiring vegetative cover.
 - B. The site shall be reclaimed with grass cover and reforestation to prevent erosion.
 - C. All highwalls shall be eliminated and all areas of the permit shall be graded to a slope no steeper than three horizontal feet to one vertical foot.
 - D. The permit area shall be graded and planted in grass cover and to prevent erosion. Clover is to be planted at the rate of 20 pounds per acre. Fescue is to be planted at the rate of 10 pounds per acre. Wheat is to be planted at the rate of 85 pounds per acre. All (3) species are to be planted by broadcast seeding during the Fall planting season. Serecia is to be planted by broadcast seeding at the rate of 30 pounds per acre during the Spring planting season.

- E. Fertilizer (00-24-24 type), for initial planting, shall be applied at the rate of 270 pounds per acre and lime shall be applied as recommended by the NRCS, and be applied by broadcasting. Fertilizer (13-13-13 type) shall be applied at the rate of 200 pounds per acre, in September, each successive year prior to final bond release.
 - F. Vegetation will be maintained until final bond release by mowing each year in September. Eroded areas shall be re-graded and re-planted as needed, but in no case less frequently than annually.
 - G. Gullies shall be repaired as necessary to prevent erosion and shall follow all applicable National Pollutant Discharge Elimination System (NPDES) permit requirements.
 - H. Debris shall be disposed of by burying, as permitted by local ordinance.
- 12. The performance bond instrument submitted is Bond No. SUR0038909 from Argonaut Insurance Company, San Antonio, Texas, as Surety, executed by EP Engineered Clay Corporation as Principal, in the amount of \$32,779.40, on July 14, 2017, which is \$964.10 per acre.
 - 13. The facility shall be constructed, operated, and monitored in such a manner as to ensure Mississippi Groundwater Quality Standards are not exceeded by any activity of this facility.
 - 14. The facility shall be constructed, operated, and monitored in such a manner as to prevent a discharge of pollutants into waters of the State, including wetlands, that violates any requirements of the Clean Water Act or the Mississippi Air And Water Pollution Control Act, including, but not limited to, the National Pollutant Discharge Elimination System (NPDES) requirements.
 - 15. Based on the Wastewater Regulations for National Pollutant Discharge Elimination System (NPDES) Permits, Underground Injection Control (UIC) Permits, State Permits, Water Quality Based Effluent Limitations and Water Quality Certification (Regulation WPC-1), Chapter 3, Section IV, part 3, the following buffer zones shall be established between all mining activity and any existing stream, and maintained for the life of the permit:
 - A. 50-foot buffer zone for intermittent streams (generally shown as a broken blue line on the latest version of the U. S. Geological Survey topographic quadrangle map)
 - B. 100-foot buffer zone for perennial streams (generally shown as a solid blue line on the latest version of the U. S. Geological Survey topographic quadrangle map)
 - C. 300-foot buffer zone for navigable waterways (as defined by the U. S. Army Corps of

Engineers)

16. No dam may be constructed on the permitted site without first obtaining prior written authorization for the dam in accordance with Dam Safety Regulation LW-4.

D. Wildlife, Threatened and Endangered Species and Unique Biological Communities

1. The permittee shall promptly report to the Mississippi Department of Wildlife, Fisheries, and Parks and MDEQ any State of Mississippi or federally-listed endangered or threatened species within the permit area of which the permittee becomes aware.
2. The permittee shall promptly report to the Mississippi Department of Wildlife, Fisheries, and Parks and MDEQ any unique biological communities within the permit area of which the permittee becomes aware.

E. Variances and Waivers

There are no variances or waivers.

END OF PERMIT