

STATE OF MISSISSIPPI SOLID WASTE MANAGEMENT PERMIT

TO OPERATE A SOLID WASTE MANAGEMENT FACILITY IN
ACCORDANCE WITH THE REGULATIONS GOVERNING
SOLID WASTE MANAGEMENT

THIS CERTIFIES THAT

South Mississippi Electric Power Association

has been granted permission to operate a solid waste management facility

located at

304 Okahola Road
Purvis, Mississippi

under the name of

R.D. Morrow, Sr. Generating Plant, CCB Landfill

This permit is issued in accordance with the provisions of the Mississippi Code Annotated, and the regulations and guidelines adopted and promulgated thereunder

MISSISSIPPI ENVIRONMENTAL QUALITY PERMIT BOARD



AUTHORIZED SIGNATURE

MISSISSIPPI DEPARTMENT OF ENVIRONMENTAL QUALITY

Issued: JAN 14 2015

Expires: **DEC 31 2024**

Permit No. SW0370020308

CONDITIONS

A. EFFECT OF PERMIT

South Mississippi Electric Power Association (permittee) shall operate the solid waste management facility in accordance with the Mississippi Nonhazardous Waste Management Regulations (state regulations), applicable federal regulations, the approved application and submittals, the plan of operation and the conditions of this permit.

B. PERMIT ACTIONS

This permit may be modified, revoked and reissued, or terminated for noncompliance with the terms and conditions of the permit. The filing of a request for a permit modification, revocation and reissuance, 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.

C. SEVERABILITY

The provisions of the 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.

D. 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 solid waste law and regulations promulgated thereunder and is grounds for enforcement action, permit termination, revocation and reissuance, modification, or for denial of a permit renewal application.
2. 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 a new permit at least 180 days before this permit expires.
3. 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.
4. 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 and approved by the Department of Environmental Quality (Department).

5. Duty to Provide Information. The permittee shall furnish to the Department, within a reasonable time, any relevant information which it may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit.
6. Inspection and Entry. The permittee shall allow an authorized representative upon the presentation of proper credentials and other documents as may be required by law to:
 - a. Enter at reasonable times on the permittee's premises where a regulated activity is located or conducted, or where records must be kept under the conditions of this permit.
 - b. Have access to and copy at reasonable times any records that must be kept under the conditions of this permit.
 - c. Inspect at reasonable times any facilities, equipment, practices, or operations regulated or required under this permit.
 - d. Sample or monitor at reasonable times for the purposes of assuring permit compliance.
7. Transfer of Permit. This permit is not transferable to any person except after notice to and approval of the Environmental Quality Permit Board or the Permit Board's designee. Such transfer must be made prior to any sale, conveyance, or assignment of the rights in this permit.
8. Signature Requirements. An application for the re-issuance, modification or transfer of this solid waste management permit and all permits required by this permit or other information requested by the Permit Board shall be signed as follows:
 - a. For a corporation: a president, vice-president, secretary, or treasurer of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation;
 - b. For a partnership or sole proprietorship: a general partner of the proprietor, respectively;
 - c. For a municipality, county, state, federal, or other public agency: either a principal executive officer or ranking elected official:

- d. The signature of a Duly Authorized Representative (DAR) shall be a valid signature under the state regulations, in lieu of the signatures described previously provided the following conditions are met:
 1. The DAR is an employee of the entity holding the solid waste management permit.
 2. The DAR is identified to the Department by the ranking officer of the corporation, partnership, proprietorship, municipality, county, state, federal or other public agency.
 3. The DAR is responsible for the overall management of the solid waste facility.

E. SITE SPECIFIC CONDITIONS

1. Authorized Wastes

- a. The permittee is authorized to place coal combustion by-product and scrubber by-products (CCB's) generated at South Mississippi Electric Power Association's R.D. Morrow, Sr. Generating Plant in Lamar County, Mississippi, as described in the plan of operation into the CCB landfill.
- b. No other wastes including construction or demolition debris, other process sludges, or any other plant wastes may be deposited in the disposal units, unless prior authorization is obtained from the Department. The Department may grant authorization for the disposal of additional nonhazardous solid waste streams generated at the R. D. Morrow facility upon the submittal of a written request by the permittee containing an appropriate physical and chemical characterization of the additional waste streams which demonstrates that the waste is nonhazardous and appropriate for placement in the CCB landfill.

2. Operating Conditions

- a. The placement of CCB's shall be restricted to the approved permitted area, consisting of approximately 72 acres and shall not exceed a maximum elevation of three-hundred and thirty (340) feet msl which includes the final cover system.
- b. Disposal area boundaries shall be clearly marked. At a minimum, the corners of the disposal area shall be marked by minimum 3-

foot high posts as measured from ground surface, unless otherwise approved or directed by the Department. The markers may be concrete posts, metal pipes, weather treated wood posts, metal fence posts, or other markers as approved by the Department. Posts shall be at a minimum 2 inches in diameter (excluding metal fence posts) and shall be placed in the ground to a sufficient depth in such a manner to facilitate permanence. Disposal boundaries and corner posts shall be established and placed prior to disposal by a Mississippi Registered Land Surveyor.

- c. Modification to this permit shall be required prior to a horizontal or vertical expansion of the gypsum storage facility or a significant change in the method of waste management.
- d. Construction of landfill components shall be conducted by qualified and experienced personnel. The Department shall be notified of an approximate construction schedule at least one week prior to liner and final cover construction activities.
- e. Construction, operation, closure, and post-closure activities of the facility shall be conducted in accordance with the approved plans, as submitted to the Department.
- f. At least two weeks prior to placement of waste material in any newly constructed waste disposal unit, a quality assurance/quality control (QA/QC) report on all construction activities which demonstrates the compliance with the state regulations and the approved design plans shall be submitted to the Department. The QA/QC report shall contain certification from an independent, registered professional engineer that the area has been constructed according to approved design plans and all applicable sections of the state regulations. The report shall include, at a minimum, field logs, results of testing, subgrade survey, top of liner survey and construction testing methods.
- g. Any changes to the approved QA/QC for liner installation (e.g., installation procedures, testing frequencies, testing methods, etc.) shall be submitted to the Department for approval.
- h. Construction, operation, closure, and post-closure activities of the waste disposal units shall be conducted in accordance with the Mississippi Nonhazardous Solid Waste Management Regulations and the approved plans as submitted to the Department.
- i. Adequate security must be maintained at the CCB landfill facility to prohibit unauthorized access and disposal. Access to the site

shall be secured or locked when the site is closed and when no attendant is on site.

- j. All-weather access and transport roads shall be constructed and maintained at the site to maintain operations during inclement weather conditions.
- k. Appropriate actions shall be taken to inhibit CCB particles from becoming windblown off the site. In addition, appropriate dust control measures shall be implemented as necessary to contain and/or suppress fugitive dust emissions from the unit; from the access and transport roads at the unit and from other facility components.
- l. Excavation and recovery of CCB's from the CCB landfill shall be conducted in such a manner that the underlying clay/geocomposite liner system and leachate collection system shall not be disturbed or damaged, that runoff or washout of CCB's will be prevented, and windblown CCB's will be minimized. The permittee shall limit excavations adjacent to the leachate collection system to a distance no less than 5 feet vertically.
- m. The Department may require changes in the operating conditions of the CCB landfill, including requiring an intermediate cover, modifying leachate management conditions and implementing other control measures, as necessary to prevent or correct conditions at the facility which cause, contribute to or allow environmental, public health or public nuisance problems.
- n. The leachate collection systems shall be cleaned, maintained, and pumped as necessary to properly manage leachate collection. Monitoring and pumping of any accumulated leachate shall be performed on a monthly basis during the first two consecutive calendar years for all disposal cells. The permittee may petition for more infrequent monitoring after the initial two-year period. The Department will consider any petition provided the permittee submits factual justification for more infrequent monitoring.
- o. Surface water which has contacted CCB Waste, surface leachate flowing from filled areas of the CCB landfill, and sub-surface leachate shall be collected and managed as leachate. Surface leachate and contaminated surface water and/or groundwater shall not be allowed to flow off-site of the CCB landfill, but shall either be recirculated for use in the CCB landfill, routed for use in plant activities for ash hydration, or treated and discharged as per the

applicable National Pollutant Discharge Elimination System (NPDES) permit requirements.

- p. The CCB landfill 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 CCB landfill.
- q. The CCB landfill shall be constructed, operated, and monitored in such manner so as to prevent a discharge of pollutants into waters of the State (including wetlands) that may violate requirements of the Federal Clean Water Act and/or the Mississippi Air and Water Pollution Control Act, including, but not limited to, the NPDES requirements.
- r. The leachate collection system shall be monitored by visual inspection on a monthly basis. Estimates of approximate leachate volumes and significant changes in quantities shall be observed during monthly inspection periods. Observations shall be recorded and kept on file for review by the Department.
- s. Operation of the CCB landfill shall be conducted in accordance with any applicable requirements of the U.S. Army Corps of Engineers and the U.S. Fish and Wildlife Service.
- t. The permittee shall at all times properly operate and maintain all equipment and systems used to achieve compliance with the conditions of this permit. It shall be the owner's responsibility to ensure proper training and ensure employment of an adequate number of employees to properly operate the facility.
- u. At least two weeks prior to the installation of the groundwater monitoring wells, the permittee shall inform the Department of the anticipated dates of well installation so that a representative of the Department may be present during the well installation.
- v. The owner of a solid waste landfill shall submit an annual report to the Department each year on or before February 28th, to include information describing the operations from the preceding calendar year. At a minimum, the report shall contain the following:
 - 1. aggregate information on the types, amounts and sources of waste received during the calendar year. Listed types should be divided minimally into residential and non-residential wastes. The amounts of waste received should be reported in units of tons, with the amount of waste originating in-state and

out-of-state listed separately. The sources of waste should list cities and/or counties individually, with a clear indication of wastes originating from out-of-state.

2. a contour drawing of the landfill showing areas filled during the report year and total cumulative areas filled.
3. the estimated remaining capacity, in terms of volume and years of life remaining.
4. an adjusted closure and post-closure cost estimate, if applicable.
5. an audit of the financial assurance document and the end-of-year value of the financial assurance mechanism, if applicable.
6. a modified financial assurance document, if necessary.

3. Monitoring Requirements

- a. Groundwater monitoring and analyses shall be conducted for groundwater obtained from the CCB landfill approved groundwater monitoring wells in accordance with the approved groundwater monitoring plan for the following parameters:

Groundwater Quality Parameters

Arsenic
Antimony
Beryllium
Chromium
Cadmium
Lead
Nickel
Selenium
Sulfate

Field Parameters

pH
specific conductance
temperature
turbidity
oxidation-reduction
potential

- b. Groundwater monitoring shall be conducted semi-annually, unless otherwise approved or directed by the Department, according to the following schedule:

Monitoring Period

January - June
July - December

Report Due

August 31
March 1 (of the following year)

Samples may be taken at any time during the monitoring period; however, sampling events shall be at least four months apart.

- c. All groundwater samples shall be obtained by qualified personnel per U.S. EPA approved sampling procedures and chain of custody requirements.
- d. The following reports and records shall be retained in the operating record, and a copy shall be submitted to the Department according to the schedule above:
 - 1. The dates, exact location, and time of sampling.
 - 2. The individual who performed the sampling.
 - 3. Results of groundwater level measurements and a map indicating direction of flow.
 - 4. The date(s) laboratory analyses were performed.
 - 5. The individual(s) who performed the analyses.
 - 6. The analytical techniques or methods used.
 - 7. The results of such analyses, provided by the laboratory.
 - 8. A graphic representation of groundwater monitoring data for analyzing trends in water quality for: Arsenic, Antimony, Beryllium, Chromium, Cadmium, Lead, Nickel, Selenium, Sulfate, and pH.
 - 9. A statistical comparison of analyses.
 - 10. A determination of statistically significant increases; and
 - 11. Chain of custody forms.
- e. Groundwater monitoring wells shall be properly maintained and secured. The permittee shall not remove, abandon or relocate any monitoring well prior to obtaining approval from the Department. If any monitoring well becomes damaged and/or inoperable, the permittee shall notify the Department as soon as feasible upon becoming aware of such conditions and shall provide a written report within seven (7) days of the notice. The written report shall detail the problem and proposed measures to correct and prevent the recurrence. The location and design of all replacement or

corrective action monitoring wells shall be approved by the Department prior to installation.

- f. Groundwater assessment monitoring and corrective action, if necessary, shall be conducted at the waste disposal units in accordance with state and federal regulations and plans approved by the Department.
- g. At a minimum, one groundwater sampling and analysis event shall be conducted from the approved groundwater monitoring network in accordance with the approved groundwater monitoring plan for submittal to the Department prior to the disposal of CCB's into the permitted landfill expansion area.

4. Closure/Post-Closure Requirements

- a. Filled areas of the landfill, which will not receive additional waste or final cover within one year, shall receive an intermediate cover of twelve inches of earthen cover. Following placement, a minimum of twelve inches of the cover shall be maintained until additional waste is placed on the area or until final cover is applied. An alternate cover system may be approved by the Department.
- b. Any significant changes to the approved closure or post-closure plan must be submitted to the Department for approval prior to implementation.
- c. A closure/post-closure plan for the CCB landfill shall be submitted to the Department for approval at least 120 days prior to initiation of final closure of the CCB Landfill. Due to the potential for material recovery after each unit has reached capacity, alternate final closure conditions may be approved by the Department to allow for ash mining and recovery operations.
- d. Closure of the CCB landfill shall be implemented and completed in accordance with the approved closure plan. In addition to that which has been previously approved, the permitted shall provide:
 - 1. A proposed schedule of closure activities;
 - 2. A proposed post-closure monitoring plan;
 - 3. Third Party QA/QC closure documents; and
 - 4. A proposed schedule for a post-closure monitoring period .

- e. The approved final cover system shall be placed on completed areas of the CCB landfill in accordance with State regulations and the approved application, specifications, and designs.
- f. Upon completion of final closure, a updated surveyed drawing of the CCB landfill shall be submitted to the Department depicting final contours, elevations and boundaries of the CCB landfill.
- g. The condition of the final cover system shall be inspected and documented at least monthly by permittee personnel during the post-closure monitoring period of the CCB landfill. Erosion, cracks, ponding, leachate outbreaks and similar problems shall be promptly repaired.
- h. Compliance with the final closure requirements for the facility shall be certified by an independent Professional Engineer registered in the State of Mississippi.
- i. Any reduction in frequency or number of monitoring events, monitoring parameters, site inspections or other components of the approved closure or post-closure plan must be submitted to the Department for approval before being implemented.

5. Other Permit Conditions

The permittee shall plug and abandon all soil borings, groundwater monitoring wells, and piezometers utilized in the course of the hydrogeologic investigation or other investigations located within the actual disposal area prior to cell construction and disposal. Plugging and abandonment shall be conducted in compliance with the specifications of the rules and regulations of the Mississippi Office of Land and Water Resources.