

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

City of Canton

has been granted permission to operate a solid waste management facility

located at

Section: 26, Township: 9 North, Range: 2 East

of Madison County

under the name of

Canton Sanitary 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: November 14, 2017

Expires: October 31, 2027

Permit No. SW04501B0378

CONDITIONS

A. EFFECT OF PERMIT

The permittee shall operate the solid waste management facility in accordance with the Mississippi Nonhazardous Solid Waste Management Regulations, applicable state and federal Regulations, the approved application and the conditions of this permit.

B. PERMIT ACTIONS

This permit may be modified, revoked, and/or reissued for good cause or noncompliance with the terms and conditions of the permit. The filing of a request for a permit modification, 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 Mississippi Code Annotated and regulations promulgated thereunder and is grounds for enforcement action; permit revocation, reissuance, or modification; or for denial of a permit renewal application.
2. Duty to Reapply. If the permittee wishes to continue an activity authorized by this permit after the expiration date of this permit, the permittee must submit a complete application for a new permit at least 180 before the expiration date of this permit.
3. Duty to Mitigate. The permittee shall take all reasonable steps to minimize, prevent, or correct any adverse impact on human health or 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 utilized by the permittee to achieve compliance with the conditions of this permit and application as submitted and approved by the

Mississippi 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 the Department may request to determine whether cause exists for modifying, revoking, or reissuing this permit, or to determine compliance with this permit.
6. Inspection and Entry. The permittee shall allow an authorized representative of the Department upon the presentation of credentials and other documents as may be required by law to:
 - a. Enter 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. Property Rights. It is the responsibility of the permittee to possess and maintain a sufficient interest in or right to the use of the properties described in this permit, including the access route(s)

The issuance of this permit does not convey any property rights or interest in either real or personal property; nor does it authorize any injury to private property, invasion of personal rights, or impairment of previous contract rights; nor any infringement of Federal, State or local laws or regulations outside the scope of the authority under which the permit is issued.

8. Anticipated Noncompliance. The permittee shall give written notice to the Department at least 30 days in advance of any planned changes in the permitted facility or activity which may result in noncompliance with the requirements of this permit or the Mississippi Nonhazardous Solid Waste Management Regulations.
9. Modification of Permits. Any proposed modification to the approved application or plan of operations resulting in an expansion of the facility or a significant change in the method of waste management must be approved by the Permit Board or the Board's designee prior to

implementation. Other proposed modification to the approved facility design or operations must be approved by the Department prior to implementation.

10. Transfer of Permits. This permit is not transferable to any person except after notice to and approval of the Mississippi Environmental Quality Permit Board or the Board's Designee. The Permit Board may require modification of this permit or revocation and issuance of a new permit to change the name of the permittee and incorporate such other requirements as may be necessary.
11. Signature Requirements. The permittee shall ensure that an application for the reissuance, modification or transfer of this permit and all reports required by this permit or by state regulations shall be signed in accordance with Rule 1.2 of the Mississippi Nonhazardous Solid Waste Management Regulations.
12. Financial Assurance. The permittee shall establish, maintain and annually update financial assurance for the estimated closure and post-closure costs of the landfill as required by Rule 1.4 of the Mississippi Nonhazardous Solid Waste Management Regulations.
13. Contract Operator. If the permittee executes a contract with a private entity to operate the landfill, a complete disclosure statement for the contractor shall be submitted and approved by the Permit Board or the Permit Board's Designee as set forth in state law and regulations prior to the contractor beginning operations.

E. SITE PREPARATION AND CONSTRUCTION REQUIREMENTS

1. The permittee shall ensure that the site preparation and construction activities are conducted in accordance with the Mississippi Nonhazardous Solid Waste Management Regulations and the approved plans as submitted to the Department.
2. The permittee shall ensure that the construction of the components of the landfill is conducted by qualified and experienced personnel.
3. The permittee shall ensure that the disposal activity is limited to the approved disposal area defined in the submitted application consisting of approximately 49 acres of the property located in Section 26; Township 9 North; and Range 2 East of Madison County.
4. The permittee shall ensure that the construction of the landfill and any individual cell or construction phase is prepared and constructed in accordance with the following:

- a. Prior to construction, all borings drilled on the site in preparation of the permit application, which will not be converted to monitoring or supply wells, will be properly sealed in accordance with the requirements of the Office of Land and Water Resources of the Department.
- b. Prior to construction or preparation of any new disposal cell at the site, the cell boundaries shall be appropriately located and marked by a land surveyor licensed by the State of Mississippi to ensure construction within the approved area. Property line setback distances as indicated in the permit application shall be established and maintained.
- c. For the development of the disposal cell, the excavation of any overburden shall not occur below the subgrade elevations approved in the construction plan. Excavation shall be conducted in a manner that preserves the minimum buffer thickness of five (5) feet of naturally occurring soils between the uppermost aquifer and the base of the liner. In preparation for composite liner construction, the buffer shall be inspected for cracks, large stones, other protrusions, and for soil material which would not be suitable buffer material. Areas where unsuitable soil materials or groundwater seeps exist shall be excavated and the soils replaced with soil materials having a permeability equal to or less than 1×10^{-6} cm/sec. The surface shall be compact, smooth, uniform and free of desiccation cracks.
- d. The constructed composite liner system for the landfill shall consist of a flexible membrane liner placed atop a constructed, compacted clay liner.
 1. The constructed clay liner for the landfill shall consist of fine grained materials processed to produce a uniform layer that exhibits a permeability equal to or less than 1×10^{-7} cm/sec. The clay liner shall be constructed in compacted 4-6 inch lifts to a total thickness of at least 2 feet. Each lift shall be evenly compacted to the density and moisture content required. Placement of the compacted clay liner on the side slopes shall be in lifts along the slope, not in horizontal lifts. Between lifts, the surface shall be scarified for proper bonding.
 2. Upon approval of the compacted clay liner by the Department, the flexible membrane liner (FML) shall be installed in direct and uniform contact with the compacted clay liner. The FML shall consist of a 60-mil HDPE geomembrane placed atop of the constructed clay liner and deployed and seamed utilizing approved methods.

- e. In construction/preparation of the buffer subbase and the soil compacted clay liner, the surface shall not be allowed to dry out and crack before placement of the next layer. If desiccation cracks do form, the surface shall be rewetted, re-homogenized, and re-compacted to the depth of the cracks before placement of the succeeding layer.
- f. Field density, moisture content, and permeability tests on the clay liner shall be conducted in accordance with the approved plan. Test holes in the clay liner shall be sealed with bentonite, or another method approved by the Department.
- g. Prior to placement of the FML, the compacted clay liner shall be smooth, uniform, and free from protrusions or cracks. The FML shall be properly anchored and seamed in accordance with the approved construction and installation plan. Seams will be tested for integrity and corrected where necessary. During and after installation activities, the flexible membrane liner shall be protected from damage (e.g. heavy equipment, tearing, puncturing, exposure to the sun, etc.). Field seams shall be oriented vertically along the side slopes (i.e. top to bottom of side slope). Unless otherwise approved by Department, no later than six months after liner installation, the protective layer shall be placed over the FML and properly maintained until waste is placed over the area.
- h. At least two weeks prior to the placement of waste in a newly constructed cell, a construction quality assurance (CQA) report shall be submitted to the Department that demonstrates compliance with all applicable sections of the state regulations and the approved design plans. The report shall contain a certification from an independent registered professional engineer (registered in the State of Mississippi) that the area has been constructed according to the approved design plans and all applicable sections of the state regulations. The report shall also include field logs, results of testing, subgrade survey, top of liner survey and construction testing methods and results. A land surveyor licensed by the State of Mississippi shall certify all surveys conducted for quality assurance. Engineering drawings submitted with the report shall contain GPS coordinates of the constructed disposal cell within the total permitted disposal area.
- i. The perimeter storm water management system and the surficial runoff collection system across the facility including the perimeter and interior diversion ditches and dikes, access road storm water ditches, storm water collection swales, side slope diversion swales, downchutes, and the runoff collection basin shall be constructed as per the approved plans, prior to the placement of any waste and in such a

manner so as to inhibit erosion and minimize storm water contact with the waste.

F. SITE SPECIFIC OPERATING CONDITIONS

1. The permittee shall ensure that the facility is operated in accordance with all applicable regulations and the approved plan of operations, unless otherwise approved by the Department.
2. The permittee shall ensure that the service area of the facility is consistent with the approved service area described in the City of Canton Solid Waste Management Plan. Solid waste generated in the areas not within the approved service area shall be prohibited from disposal.
3. The permittee shall implement and maintain security and monitoring measures to prevent uncontrolled access and disposal. An attendant shall be on duty at any time access to the site is unsecured.
4. The permittee shall implement a program at the facility for detecting and preventing the disposal of regulated hazardous waste and polychlorinated biphenyls (PCB) waste as defined by the Mississippi Nonhazardous Solid Waste Management Regulations. The permittee shall also implement a program at the facility to ensure that all facility personnel are properly trained to recognize hazardous waste and PCB wastes.
5. The permittee shall obtain information on any industrial process waste stream, prior to disposal, in accordance with the Mississippi Nonhazardous Solid Waste Management Regulations. This information shall be provided to the Department for review. The industrial process waste shall not be accepted for disposal if the Department objects to such disposal within 14 days of receipt of the required information.
6. The permittee shall ensure that regulated asbestos containing material will not be accepted for disposal, unless a plan of operation and a demonstration of compliance with EPA NESHAP regulations 40 CFR 61.153 and 61.154 – Reporting and Standard for Active Waste Disposal Sites, is submitted to and approved by the Department.
7. The permittee shall ensure that infectious medical waste, as defined by the Mississippi Department of Health, will be prohibited from disposal unless such waste has been satisfactorily rendered non-infectious. All medical waste received for disposal shall be managed in accordance with the approved medical waste management plan described in the plan of operations.
8. The permittee shall restrict the disposal of bulk or non-containerized liquid

waste in accordance with the Mississippi Nonhazardous Solid Waste Management Regulations.

9. The permittee shall prohibit the disposal of whole waste tires in accordance with the Mississippi Waste Tire Management Regulations, unless otherwise approved by the Department.
10. The permittee shall establish and maintain a site operator with a certificate of competency issued by the Mississippi Commission on Environmental Quality (Commission) in accordance with the Regulations for the Certification of Operators of Solid Waste Disposal Facilities. Such person shall have direct supervision over and be personally responsible for the daily operation and maintenance of the facility.

In the event of the temporary loss of a certified operator for a legitimate cause, written notice shall be given to the Department within 7 days. Continued operation without a certified operator may continue on an interim basis for a period not to exceed 180 days, except for good cause shown upon petition to the Commission.

11. The permittee shall ensure that all solid waste will be covered each day before the close of operations, or more frequently, if necessary to control disease vectors, fires, odors, blowing litter, and scavenging. Cover shall consist of at least 6 inches of earthen material or an alternate approved method of cover. An alternate method of cover may be used if a specific description and plan of operation is submitted to and approved by the Department.
12. Portions of the daily earthen cover may be removed at the beginning of each working day to facilitate downward movement of leachate to the leachate collection system.
13. The permittee shall ensure that all areas of the facility outside of the active disposal area are maintained free from litter and scattered debris. Additionally, the permittee shall ensure that all litter and scattered debris will be collected every operating day and returned to the active disposal area.
14. The permittee shall ensure that burning or smoldering waste accepted at the facility is extinguished in an area specified by the owner/operator and approved by the Department separate from all disposal areas. Additionally, the permittee shall ensure that the waste will not be placed in the active disposal area until all smoldering debris has been adequately extinguished. The waste shall be placed within the active disposal area and covered within 24-hours of being adequately extinguished.

15. The permittee shall ensure that should a fire occur, the owner and/or operator of the facility will take immediate action to extinguish the fire and will notify the Department within 24-hours. Initial Department notification may consist of either written or verbal methods. However, written correspondence describing the incident and the conditions of its extinguishment shall be submitted within 5 working days of the incident.
16. The permittee shall ensure that the landfill will be constructed, operated, and maintained with earthen berms, ditches or other means such that uncontaminated surface water run-off is directed around and away from the developed landfill area. The permittee shall additionally ensure that each cell will be constructed and maintained to direct uncontaminated surface water run-off around and away from the active disposal area. Erosion, sloughing, or other damage shall be promptly repaired.
17. The permittee shall ensure that uncontaminated surface water run-off from construction activities and from areas without established vegetation is diverted to an onsite sedimentation basin.
18. The permittee shall ensure that the facility's sedimentation basins will be constructed and maintained to collect and control, at a minimum, the water volume resulting from a 24-hour, 25-year storm event. Additionally, the permittee shall ensure that periodic dredging of the basins will be conducted to maintain proper elevations and the required capacity.
19. The permittee shall not cause a discharge of pollutants into waters of the State or in violation of NPDES requirements as described in the Rule 1.4 of the Mississippi Nonhazardous Solid Waste Management Regulations.
 - a. Surface water run-off contaminated by contact with solid waste and leachate flowing from filled areas of the landfill shall be collected and managed as leachate. Additionally, the permittee shall prevent surface leachate and contaminated surface water run-off from flowing off-site of the landfill property or through the storm water discharge points.
 - b. The permittee shall weekly inspect areas of intermediate cover, final cover, and other pertinent areas of the landfill weekly. The permittee shall repair any leachate outbreaks within 5 working days. Leachate outbreaks or seeps that flow out of the permitted disposal area and/or into onsite storm water conveyances or onsite sedimentation basins, shall be reported to the Department within 72 hours of identification. Inspections, outbreaks and corrective actions shall be documented by the permittee and such documents made available for review by the Department upon request.

20. The permittee shall ensure that the leachate collection system will be operated as follows:
 - a. The leachate collection system of pipes, trenches and sumps shall be cleaned, maintained and pumped to ensure proper leachate collection.
 - b. The depth of leachate over the liner, excluding trenches and sumps, shall not exceed 30 cm.
21. The permittee shall prohibit the recirculation of leachate and gas condensate into the landfill unless an operational plan, including detailed drawings, is submitted to and approved by the Department.
22. The permittee shall ensure that filled areas of the landfill, which have remaining capacity and will not receive waste within the next 30 days, will receive an intermediate earthen cover of 12 inches. An alternate intermediate cover system may be utilized by the facility if approved by the Department.
23. The permittee shall ensure that operations of the facility are conducted in accordance with all applicable requirements of the U.S. Army Corps of Engineers and the U.S. Fish and Wildlife Service.
24. The permittee shall ensure that excavation, mining, and/or removal of solid waste from closed or inactive areas of the site is prohibited unless plans are submitted to and approved by the Department.

G. MONITORING, RECORDKEEPING, AND REPORTING CONDITIONS

1. Leachate Monitoring Requirements
 - a. The permittee shall ensure that depth of leachate measurements are made and/or monitored daily.
 - b. The permittee shall maintain records at the facility confirming daily leachate monitoring and shall ensure that the records also consist of documentation of the following:
 1. leachate depth measurements that exceed 30 cm or greater over the liner;
 2. any electronic pumping failures;
 3. any corrective measures implemented for repairs or other actions to return depth of leachate over liner to less than 30 cm;
 4. quantities of leachate pumped;
 5. results of leachate analysis;
 6. methods and locations of leachate disposal; and
 7. system cleaning and maintenance records.

2. Groundwater Monitoring Requirements

- a. The permittee shall conduct detection groundwater monitoring at the facility in accordance with State and Federal regulations and the approved groundwater monitoring plan. Proposed changes or modifications to the approved groundwater monitoring plan must be approved by the Department prior to implementation.
- b. Groundwater monitoring shall be conducted semi-annually, unless otherwise directed by the Department. The semi-annual groundwater monitoring periods shall be January through June and July through December. Although samples may be obtained at any time during the monitoring period, the permittee shall ensure that all required sampling events, excluding background events, will be at least four months apart.
- c. The permittee shall submit a copy of the results of the groundwater monitoring to the Department within 60 days of the sampling event. Additionally, the permittee shall retain reports and records for each groundwater monitoring event in the operating record and ensure that the report and records consist of the following:
 1. The dates, exact location, and time of sampling
 2. Identification of individuals who performed the sampling
 3. Results of groundwater level measurements and a map indicating the direction of groundwater flow
 4. The date(s) laboratory analyses were performed
 5. Identification of individuals who performed the laboratory analyses
 6. The analytical techniques or methods utilized
 7. The results of such analyses, prepared according to industry standards or as directed by Department
 8. The statistical report of the analyses
 9. A determination of statistically significant increases, and
 10. The chain of custody forms
- d. Any time a statistically significant increase is identified for any parameter listed in Appendix I of 40 CFR Part 258, the permittee shall ensure that the Department is notified within 14 days. Additionally, the permittee shall conduct groundwater assessment monitoring and corrective action, if necessary, at the facility in accordance with the Mississippi Nonhazardous Solid Waste Management Regulations.

3. Methane Monitoring Requirements

- a. The permittee shall conduct methane monitoring at the facility in accordance with State and Federal regulations and the approved methane monitoring plan.
- b. Methane monitoring shall be conducted quarterly, unless otherwise directed by the Department. Quarterly periods shall be defined as the following:

First Quarter:	January through March
Second Quarter:	April through June
Third Quarter:	July through September
Fourth Quarter:	October through December

Although measurements may be taken at any time during the monitoring period, the permittee shall ensure that all required monitoring events will be at least 45 days apart.

- c. The permittee shall submit a copy of the results of the methane monitoring to the Department within 60 days of the sampling event. Additionally, the permittee shall retain reports and records for each methane monitoring event in the operating record and ensure that the report and records consist of the following:
 1. The dates, exact location and time of measurements,
 2. Identification of individuals who performed the measurements, and
 3. The results of the methane monitoring for all monitoring wells and facility structures.
- d. Anytime methane gas levels at the point of compliance exceed the limits specified in the Mississippi Nonhazardous Solid Waste Management Regulations, the permittee shall:
 1. Immediately take action to ensure the protection of human health and notify the Department
 2. Submit the required report outlined in Section G.2.c of this permit within 7 days of detection and describe the steps taken to protect human health
 3. Implement an approved methane remediation plan within 60 days of detection. The plan shall describe the nature and extent of the methane release and the proposed remedy

4. Solid Waste Recordkeeping and Reporting Requirements

- a. The permittee shall maintain an accurate daily record of each waste load entering the facility. The record shall include the following:

1. The name of the hauler,
 2. The source of the waste,
 3. The type(s) of waste received, and
 4. The weight of the waste in units of tons.
- b. The permittee shall ensure that an annual report will be submitted to the Department each year on or before February 28th providing information regarding the operations of the preceding calendar year. The report shall include the following items:
1. Aggregate information on the types, amounts, and sources of wastes received during the previous calendar year. Listed types shall be divided minimally into residential and non-residential wastes. The amounts of waste shall be reported in units of tons, with the amount originating in-state and out-of-state listed separately. The sources of waste shall have cities and/or counties listed 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 areas filled
 3. The estimated remaining capacity, in terms of volume and years of life remaining
 4. If the permittee or contract operator is a private concern, an updated disclosure statement for the permittee and/or contract operator. If all information from the previously submitted disclosure statement is unchanged, a letter stating such may be included in lieu of an updated disclosure statement
 5. An adjusted closure and post closure cost estimate
 6. An audit of the financial assurance document and the end of year value of the financial assurance mechanism
 7. A modified financial assurance document, if necessary
 8. Other information as requested by the Department

H. CLOSURE/POST-CLOSURE REQUIREMENTS

1. The permittee shall conduct closure and post-closure activities in accordance with the Mississippi Nonhazardous Solid Waste Management Regulations and the approved closure/post-closure plan. Any proposed changes to the closure/post-closure plan must be approved by the Department.
2. The permittee shall ensure that the final cover system is designed to minimize infiltration and erosion. The final cover system shall consist of the following:
 - a. An infiltration layer comprised of a 60-mil HDPE FML and a

- minimum of 18 inches of earthen material that has a permeability of 1×10^{-7} cm/sec, and
- b. An erosion layer consisting of a minimum of 6 inches of earthen material capable of sustaining native plant growth, or
 - c. An alternate final cover design may be approved by the Department
3. The permittee shall ensure that the final cover gradient shall be a minimum of 4% and a maximum of 25%, unless otherwise approved by the Department.
 4. The permittee shall ensure that the final height of the facility, including the final cover system, does not exceed the 300 feet above mean sea level (MSL) for the specified areas of Cells 2 and 3 and does not exceed 265 feet above mean sea level (MSL) for all other disposal cells.
 5. At least 30 days prior to the initiation of final closure, the permittee shall submit an updated closure/post-closure construction plan for the landfill. This plan must be approved by the Department prior to initiating closure activities. This plan shall include, at a minimum:
 - a. A description of the construction details for the final cover system and surface water control structures;
 - b. A construction quality assurance (CQA) plan for the final cover system components, drainage system features, and any other appropriate closure components;
 - c. A proposed schedule of closure activities; and
 - d. An updated description of the post-closure monitoring and maintenance plans for the landfill.
 6. The permittee shall ensure that final closure activities are completed within 180 days of beginning closure activities, unless otherwise approved by the Department.
 7. The permittee shall ensure that within 60 days of completion of final closure that the following documents are submitted to the Department:
 - a. a certification, signed by a registered professional engineer, verifying that the final cover system has been completed in accordance with the regulations and the approved closure plan;
 - b. a survey drawing, prepared by a registered surveyor, depicting final contours, total acreage, and the boundaries of the landfill; and

- c. a report documenting the final volume and tonnage of waste deposited in the landfill.
8. The permittee shall ensure that within 90 days of completion of final closure activities, the deed for the property is notated in accordance with Rule 1.4.E(2)(g) of the Mississippi Nonhazardous Solid Waste Management Regulations.
9. The permittee shall conduct post-closure maintenance and monitoring in accordance with Rule 1.4.E(3) of the Mississippi Nonhazardous Solid Waste Management Regulations and approved post-closure plan. The post-closure monitoring period for the landfill shall be a minimum of 30 years, unless otherwise approved by the Department.