

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 Jackson, Mason Land Application Site

has been granted permission to operate a solid waste management facility

located at

Sections 15,21, and 22; Township 6 North; Range 3 West

under the name of

Mason Land Application Site

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: AUG 31 2010
Expires: JUL 31 2020

Permit No. SW0250030485

CONDITIONS

A. EFFECT OF PERMIT

The permittee shall operate the solid waste management facility in accordance with the Mississippi Nonhazardous Waste Management Regulations (state regulations), applicable federal regulations, 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 modification, revocation and reissuance, or termination of this permit or the notification of planned changes or anticipated noncompliance on the part of the permittee does not stay the applicability or enforceability of any condition of this permit.

C. 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.

D. DUTIES AND REQUIREMENTS

1. Duty to Comply. The permittee shall comply with all conditions of this permit. Any noncompliance with this permit constitutes a violation of the solid waste law and regulations promulgated thereunder and is grounds for enforcement action, termination, revocation and reissuance, modification of this permit 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. Land Deed of Trust. The permittee shall maintain access rights to the property where the facility is located for the duration of this permit and shall provide the Department with a copy of any lease renewal or other document regarding continued access rights.
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 application as submitted and approved by the Department of Environmental Quality.
6. Duty to Provide Information. The permittee shall furnish to the Department of Environmental Quality (Department), within a reasonable time, any relevant information which the Department may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit, or to determine compliance with this permit.
7. 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 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 compliance with this permit.
8. Transfer of Permits. This permit may not be transferred to a new owner or permittee except upon the notification and approval of the Environmental Quality Permit Board or the Permit Board's designee. Such transfer must be approved prior to sale, conveyance, or assignment of the rights in the permit held by the permittee.

E. SITE SPECIFIC REQUIREMENTS

1. Authorized Waste.

The permittee is authorized to land apply municipal wastewater sludges generated only at the Savanna Street Wastewater Treatment Plant and the Trahon Wastewater Treatment Plant of the City of Jackson. No other waste material shall be mixed or added with this sludge and land applied without the written consent of the Department.

2. Area of Application.

- a. Sludges may be land applied to the approved areas only. Approved areas as defined in the permit application consists of 65 acres (excluding buffer zones) located on Mason property in Sections 15, 21, and 22; Township 6 North; and Range 3 West; Hinds County, as shown in the permit application.
- b. No sludges shall be applied on wetland areas, unless such application is conducted in accordance with requirements of the U.S. Army Corps of Engineers and/or U.S.D.A. Soil Conservation Service.
- c. Setback distances from property lines, ponds and intermittent streams or drainage ditches as indicated in the permit application shall be maintained.
- d. No sludges shall be applied within 300 feet of any inhabited building, unless otherwise approved by the Department.
- e. No sludges shall be applied within 250 feet of the banks of any river, stream, lake, reservoir, or other surface water.
- f. No sludges shall be land applied within 1000 feet of any church.

3. Operating Conditions.

The permittee shall operate the facility in accordance with the following:

- a. Access to application site shall be controlled to restrict unauthorized access during operation and also for at least 12 months following final application.
- b. Actual application area boundaries shall be clearly marked and maintained. At a minimum, the corners of the application area shall be marked by minimum 3 foot high markers, unless otherwise approved by the Department. The markers may be concrete posts, metal fence posts, or other markers as approved by the Department. The posts shall be a minimum of 2 inches in diameter (except for the metal fence posts) and shall be placed in the ground to a sufficient depth to facilitate permanence.
- c. The sludge shall either be incorporated into the soil or injected below the land surface, unless otherwise approved by the Department.
- d. One of the vector attraction reduction requirements in 40 CFR 503.33(b) (1)-(10) shall be met when sludge is land applied at the site.
- e. No sludge or other residue shall be applied to saturated ground.
- f. No contaminant shall be allowed to enter any surface water or groundwater as a result of runoff or infiltration such that a violation of any water quality standard established by the Department.
- g. Food crops, feed crops, and fiber crops shall not be harvested for 30 days after application of sewage sludge.
- h. Grazing by animals shall be strictly prohibited during operation and for 30 days after application of sludge.
- i. The land application activities must be conducted in a manner that would prevent objectionable off-site odors.
- j. Application of sludge at the site shall be discontinued in the

event that the permittee fails to maintain a valid land agreement from the landowner(s).

- k. No sludges shall be applied at the site during the period from November through April (6 months in a year), unless otherwise directed by the Department.

4. Monitoring, Records and Reporting.

- a. The permittee shall conduct sampling, monitoring and reporting events, as described in Section E.4 of this permit, until otherwise directed by the Department.
- b. The Department may approve alternative sampling, monitoring, and reporting requirements, as described in Section E.4 of this permit.
- c. Sludge and soil samples taken for the purpose of monitoring shall be representative of the applied sludge and of the soil on which sludge was applied.
- d. The permittee shall retain records of all monitoring information, including copies of all reports and records required by this permit, for the operating life of the facility.
- e. Records of monitoring information shall include:
 - i. The dates, exact place, and time of sampling or measurements;
 - ii. The individuals who performed the sampling or measurements;
 - iii. The date(s) analyses were performed;
 - iv. The individual(s) who performed the analyses;
 - v. The analytical techniques or methods used; and
 - vi. The result of such analyses.
- f. The permittee shall not land apply the sludge if the concentration of any pollutant (dry weight basis) in the sludge

exceeds the following ceiling concentrations:

<u>Pollutant</u>	<u>Ceiling Concentration (milligrams per kilogram)</u>
Arsenic	75
Cadmium	85
Chromium	3000
Copper	4300
Lead	840
Mercury	57
Molybdenum	75
Nickel	420
Selenium	100
Zinc	7500

- g. Prior to land application, seven samples of the sewage sludge from each source shall be collected and analyzed for the density of fecal coliform. In accordance with the Class B pathogen requirements, the geometric mean of the density of fecal coliform in the samples must be less than either 2,000,000 Most Probable Number per gram of total solids (dry weight basis) or 2,000,000 Colony Forming Units per grams of total solids (dry weight basis) before the sludge can be land applied.
- h. The permittee shall not exceed the following annual application rates for Plant Available Nitrogen (PAN) in accordance with the cover crop as listed below:

<u>Crop</u>	<u>Maximum P.A.N. (Lbs/Acre/Year)</u>
Bahia Grass	160
Bermuda Grass	300
Fescue	120
Cotton	180
Corn	240
Clover, Alfalfa, Vetch	450
Grain Sorghum	180
Silage Sorghum	300
Millet	150
Rye Grass	220

Soybeans	300
Wheat	135

Other cover vegetation may be grown, if approved by the Department. Sludge application in excess of the annual rates listed above for the purpose of double cropping shall be prohibited.

- i. The permittee shall not exceed an annual application rate for cadmium of 0.45 lbs/acre/year.
- j. The permittee shall not exceed the following cumulative pollutant loading rates during the life of the site:

Cumulative Pollutant Loading Rates

<u>Pollutant</u>	<u>pounds per acre</u>
Arsenic	36
Cadmium	34
Chromium	2676
Copper	1338
Lead	267
Mercury	15
Molybdenum	16
Nickel	374
Selenium	89
Zinc	2497

- k. The permittee shall maintain records listing the date(s) and areas on which sludge was applied, the quantity and source of sludge applied, and the types of crops grown on each area.
- l. Soil pH shall be maintained at or above 6.5 for all fields receiving sludge.
- m. The permittee shall prepare the following information for sludges from each source:
 1. The analyses on a bimonthly basis for sludges from the Savanna Street Wastewater Treatment Plant and on a quarterly basis for sludges from the Trahon Wastewater Treatment Plant accepted during that

period. The analyses (on dry weight basis) must include pH, TKN, ammonia-nitrogen, nitrate-nitrogen, total arsenic, total cadmium, total chromium, total copper, total lead, total mercury, total molybdenum, total nickel, total selenium, total zinc, percent solids and the density of fecal coliform.

2. The following signed and dated certification statement at a frequency of at least once a year provided there is no occurrence of any noncompliance:

“I certify, under penalty of the law that the Class B pathogen requirement in section E.3.b of the site specific conditions of permit no. SW0350030431 have been met. This determination has been made under my direction and supervision in accordance with the system designed to ensure that qualified personnel properly gather and evaluate the information used to determine that all the site specific and operating conditions of the permit have been met. I am aware that there are significant penalties for false certification including the possibility of fine and imprisonment.”

In the event of noncompliance, the permittee shall notify the Department as soon as possible. Thereafter the permittee shall submit this certification statement at a frequency as approved by the Department.

3. A description of compliance with the vector attraction reduction requirements in section E.4.g of this permit.
 4. A description of compliance with the vector attraction reduction requirement in section E.3.d of this permit
- n. The permittee shall annually, during the month of December, obtain at least one composite soil sample from each 50 acres of application area of the permitted sites on which sludge was applied in such a manner so that at a minimum one composite sample is obtained from each field receiving sludge. Each composite sample shall be made out of at least 9(nine) evenly spaced soil samples. The soil samples shall be analyzed for pH, nitrate, total arsenic, total cadmium, total chromium, total copper, total lead, total mercury, total molybdenum, total

nickel, total selenium, and total zinc.

- o. The permittee shall submit to the Department a semi-annual report no later than January 31 and July 31 of each year indicating the results of all monitoring required pursuant to paragraphs E.4.j. and E.4.m. above, including a summary of all monitoring results. The semi-annual report submitted for the second six-month period of each year (due January 31 of the following year) shall also include the total quantity of sludge applied to each field, the soil analysis required pursuant to paragraph E.4.n. above, and the quantity of plant available nitrogen (PAN), organic nitrogen that will mineralize and become available as PAN in subsequent years, arsenic, cadmium, chromium, copper, lead, mercury, molybdenum, nickel, selenium and zinc applied to each field in lb/acre/year and the total cumulative amount of each metal in lbs/acre calculated by using all data from past sludge applications on each field.