

STATE OF MISSOURI  
**DEPARTMENT OF NATURAL RESOURCES**

MISSOURI CLEAN WATER COMMISSION



**MISSOURI STATE OPERATING PERMIT**

In compliance with the Missouri Clean Water Law, (Chapter 644 R.S. Mo. as amended, hereinafter, the Law), and the Federal Water Pollution Control Act (Public Law 92-500, 92<sup>nd</sup> Congress) as amended,

MO-G970000

is authorized to discharge from the facility described herein, in accordance with the effluent limitations and monitoring requirements as set forth herein:

**FACILITY DESCRIPTION**

Outfall 001, 002, etc. SIC #2875

Storm water runoff.

Flow is dependent upon precipitation.

Yard waste composting operations under 20 acres.

This permit authorizes only wastewater discharges under the Missouri Clean Water Law and the National Pollutant Discharge Elimination System; it does not apply to other regulated areas. This permit may be appealed in accordance with Section 644.051.6 of the Law.

November 30, 2007

Effective Date

Doyle Childers, Director, Department of Natural Resources  
Executive Secretary, Clean Water Commission

November 29, 2012

Expiration Date  
MO 780-0041 (10-93)

Edward Galbraith, Director of Staff, Clean Water Commission

## APPLICABILITY

1. This permit authorizes the discharge of storm water from yard waste composting operations that are less than 20 acres in size. The acreage is measured by calculating the area that is affected by the composting activities, including unloading, storage, and handling of composting materials and finished compost. It does not include buffer zones, parking lots, maintenance facilities and storm water control basins. Yard waste is defined as those plant waste products that are produced during private, public or commercial lawn care and yard maintenance such as leaves, grass clippings, shrub and tree trimmings, and plant waste from greenhouses, household flower and vegetable gardens.
2. If at any time, the Missouri Department of Natural Resources determines that the quality of waters of the state may be better protected by requiring the owner of yard waste composting operations to apply for an individual Missouri State Operating Permit (MSOP), the Department may do so.
3. If at any time the owner of a yard waste composting operation should desire to apply for an individual MSOP, the owner may do so.
4. This permit does not apply to landfill operations or composting done in association with landfills. This permit does apply to composting operations on landfill property but whose operations are kept wholly separate from landfill operations.
5. This permit does not authorize the discharge of any water other than storm waters.
6. This permit applies to stockpiling of raw materials as necessary for the active production of compost. This permit also applies to the stockpiling of finished composts.
7. This permit does not address the compost quality, distribution, or use of the finished compost.
8. This permit does not authorize composting operations located within 100 feet of a water course, 300 feet of a lake or water supply well, 1,000 feet of a losing stream or sinkhole.
9. This permit does not apply to facilities that would discharge to outstanding national resource or outstanding state resource waters, or their tributaries.
10. Applications for coverage under this general permit for facilities located within the watershed of a 303(d) listed stream shall be evaluated on a case by case basis. Facilities discharging the pollutants for which a stream has been listed as impaired may be required to obtain a site specific permit.

## EXEMPTIONS

1. Compost sites which include less than 5% biosolids, septage, or any other form of domestic sewage, are under two (2) acres in size and are operated so as not to discharge are exempt from MSOP requirements [10 CSR 20-6.015(3)(B)7.].
2. Distribution or marketing of composts are exempt from MSOP. The Missouri Fertilizer Law (266.291, RSMo) and the Soil Conditioner Law (266.361, RSMo) may apply to these practices.
3. Uncomposted waste materials that are land applied in normal farming operations are exempt from permitting requirements. This exemption does not apply to stock piles of materials that exceed two (2) acres in size at an operating location.

## REQUIREMENTS

1. The permittee shall not stockpile raw materials other than yard waste for periods greater than 24 hours. The composting mix shall not include more than 5% by volume of animal manure, sludges or similar materials. If included, these materials shall be mixed into the compost piles and shall not be stockpiled separately for more than 24 hours.

REQUIREMENTS (continued)

2. Water Quality Standards

- (a) Discharges to waters of the state shall not cause a violation of water quality standards rule under 10 CSR 20-7.031, including both specific and general criteria.
- (b) General Criteria. The following general water quality criteria shall be applicable to all waters of the state at all times including mixing zones. No water contaminant, by itself or in combination with other substances, shall prevent the waters of the state from meeting the following conditions:
  - (1) Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses;
  - (2) Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses;
  - (3) Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses;
  - (4) Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life;
  - (5) There shall be no significant human health hazard from incidental contact with the water;
  - (6) There shall be no acute toxicity to livestock or wildlife watering;
  - (7) Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community;
  - (8) Waters shall be free from used tires, car bodies, appliances, demolition debris, used vehicles or equipment and solid waste as defined in Missouri's Solid Waste Law, section 260.200, RSMo, except as the use of such materials is specifically permitted pursuant to section 260.200-260.247.

3. Permittee shall adhere to the following Best Management Practices:

- (a) Prevent the spillage or loss of fluids, oil, grease, fuel, etc. from vehicle maintenance, equipment cleaning, or warehousing activities and prevent the contamination of storm water from these substances.
- (b) Provide for the collection and proper disposal of waste products including, but not limited to, petroleum waste products and solvents. All fueling facilities present on the site shall adhere to applicable federal and state regulations concerning underground storage, above ground storage, and dispensers, and shall include spill prevention, control and counter measures.
- (c) Store all paint, solvents, petroleum products, and petroleum waste products in appropriate storage containers (such as drums, cans, or cartons) so that these materials are safely contained and not exposed to storm water.
- (d) Provide good housekeeping practices on the site to keep trash or other solid waste from entering waters of the state.
- (e) Designate an individual as responsible for environmental matters. Inspect, once per month on workdays, any structure that functions to prevent pollution from storm water or to remove pollutants from storm water. In addition, inspect these structures within 24 hours of each rainfall event of one inch or more. Inspect the facility in general to ensure that any Best Management Practices are continually implemented and remain effective.

4. This permit may be reopened and modified, or alternatively revoked and reissued, to:

- (a) Comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C), and (D), 304(b)(2) and 307(a)(2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:
  - (1) Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
  - (2) Controls any pollutant not limited in the permit.
- (b) Incorporate new or modified effluent limitations or other conditions if the results of a waste load allocation study, toxicity test, or other information indicates changes are necessary to assure compliance with Missouri Water Quality Standards.
- (c) Incorporate new or modified effluent limitations or other conditions if, as the result of a watershed analysis, a Total Maximum Daily Load (TMDL) limitation is developed for the receiving waters which are currently included in Missouri's current 303(d) list.

5. All outfalls must be clearly marked in the field.

ANNUAL REPORT

Permittee shall submit an annual report by January 28 of each year for the previous calendar year period. The report shall include information on quantities and types of all raw materials stockpiled or composted during the year; results of any testing performed; quantity of compost sold, disposed or given away; and quantity of composting materials on-site at the end of the year.

PERMIT TRANSFER

This permit may be transferred to a new owner by submitting an “Application for Transfer of Operating Permit” signed by the seller and buyer of the facility, along with the appropriate modification fee.

PERMIT RENEWAL REQUIREMENTS

Unless this permit is terminated, the permittee shall submit an application for the renewal of this permit no later than six (6) months prior to the permit’s expiration date.

TERMINATION OF PERMIT

If activities covered by this permit have ceased and this permit no longer applies, the permittee shall request termination of this permit. The permittee shall submit Form H, Termination of a General Permit.

DUTY OF COMPLIANCE

The permittee shall comply with all conditions of this general permit. Any noncompliance with this general permit constitutes a violation of Chapter 644, Missouri Clean Water Law, and 10 CSR 20-6.200. Noncompliance may result in enforcement action, termination of this authorization, or denial of the permittee's request for renewal.

This permit authorizes only the activities described in this permit. Compliance with this permit may not be considered a shield from compliance with any local ordinance, State Regulation or State Law.

<b>A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS</b>					PAGE NUMBER 5 of 5	
					PERMIT NUMBER MO-G970000	
The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective upon issuance and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:						
OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
<u>All Outfalls</u> (Note 1)						
Flow	MGD	*		*	once/quarter	24 hr. estimate
Biochemical Oxygen Demand <sub>5</sub>	mg/L	45		30	once/quarter	grab
Total Suspended Solids	mg/L	100		50	once/quarter	grab
pH – Units	SU	**		**	once/quarter	grab
Rainfall	inches	*		*	daily	total
MONITORING REPORTS SHALL BE SUBMITTED <u>ANNUALLY</u> ; THE FIRST REPORT IS DUE _____. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						
<b>B. STANDARD CONDITIONS</b>						
IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED <u>Part I</u> STANDARD CONDITIONS DATED <u>October 1, 1980</u> , AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.						

MO 780-0010 (8/91)

**A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)**

\* Monitoring requirement only.

\*\* pH is measured in pH units and is not to be averaged. The pH is limited to the range of 6.5-9.0 pH units.

Note 1 - Monitor once/quarter during the first hour after a discharge from a rainfall event greater than 0.5 inch in a 24 hour period. Report as "no-discharge" if a discharge does not occur during the monitoring period. Samples shall be collected at the property boundary for each storm water discharge point and the sample from each outfall shall be tested separately.

**Missouri Department of Natural Resources  
Factsheet – Master General Permit Renewal**

The Federal Water Pollution Control Act ("Clean Water Act" Section 402 Public Law 92-500 as amended) established the National Pollution Discharge Elimination System (NPDES) permit program. This program regulates the discharge of pollutants from point sources into the waters of the United States, and the release of storm water from certain point sources. All such discharges are unlawful without a permit (Section 301 of the "Clean Water Act"). After a permit is obtained, a discharge not in compliance with all permit terms and conditions is unlawful. In Missouri the Federal NPDES program is administered under the authority of the Missouri Clean Water Law, which was enacted in 1972. Missouri State Operating Permits (MSOPs) are issued by the Director of the Missouri Department of Natural Resources (department) under an approved program, operating in accordance with federal and state laws (Federal "Clean Water Act" and "Missouri Clean Water Law" Section 644 as amended). MSOPs are issued for a period of five (5) years unless otherwise specified.

As per [40 CFR § 124.8(a)] and [10 CSR 20-6.020(1)2.] a Factsheet shall be prepared to give pertinent information regarding the applicable regulations, rationale for the development of effluent limitations and conditions, and the public participation process for the Missouri State Operating Permit (operating permit) listed below.

A Factsheet is not an enforceable part of an operating permit.

This Factsheet is for a Major , Minor , Industrial Facility ; Variance ;  
Master General Permit ; General Permit Covered Facility ; and/or permit with widespread public interest .

**The following Facility Information shall appear on the coverage document issued to a General Permit Covered Facility:**

NPDES #:  
Facility Name:  
Facility Address:  
Owner's Name:  
Owner's Address:

Facility Region:  
Facility County:

Facility Type:  
Facility SIC Code(s):

Facility Description: Yard waste composting operations under 20 acres.  
\_\_\_\_\_  
\_\_\_\_\_

Application Date: N.A.  
Expiration Date: N.A.  
Last Inspection: N.A.

**The following Effluent limits apply to all outfalls at the General Permit Covered Facility**

## **Receiving Stream Information**

### **APPLICABLE DESIGNATIONS OF WATERS OF THE STATE:**

As per Missouri's Effluent Regulations [10 CSR 20-7.015], the waters of the state are divided into the below listed seven (7) categories. Each category list effluent limitations for specific parameters, which are presented in each outfall's Effluent Limitation Table and further discussed in the Derivation & Discussion of Limits section.

Please mark the correct designated waters of the state categories of the receiving stream.

Missouri or Mississippi River [10 CSR 20-7.015(2)]:	Yes <input checked="" type="checkbox"/> ; No <input type="checkbox"/>
Lake or Reservoir [10 CSR 20-7.015(3)]:	Yes <input checked="" type="checkbox"/> ; No <input type="checkbox"/>
Losing [10 CSR 20-7.015(4)]:	Yes <input type="checkbox"/> ; No <input checked="" type="checkbox"/>
Metropolitan No-Discharge [10 CSR 20-7.015(5)]:	Yes <input checked="" type="checkbox"/> ; No <input type="checkbox"/>
Special Stream [10 CSR 20-7.015(6)]:	Yes <input type="checkbox"/> ; No <input checked="" type="checkbox"/>
Subsurface Water [10 CSR 20-7.015(7)]:	Yes <input type="checkbox"/> ; No <input checked="" type="checkbox"/>
All Other Waters [10 CSR 20-7.015(8)]:	Yes <input checked="" type="checkbox"/> ; No <input type="checkbox"/>

10 CSR 20-7.031 Missouri Water Quality Standards, the department defines the Clean Water Commission water quality objectives in terms of "water uses to be maintained and the criteria to protect those uses." The receiving stream and/or 1<sup>st</sup> classified receiving stream's beneficial water uses to be maintained are located in the Receiving Stream Table located below in accordance with [10 CSR 20-7.031(3)].

## **Rationale and Derivation of Effluent Limitations & Permit Conditions**

### **ANTI-BACKSLIDING:**

A provision in the Federal Regulations [CWA §303(d)(4); CWA §402(c); CFR §122.44(I)] that requires a reissued permit to be as stringent as the previous permit with some exceptions. (Staff may also add or remove any language needed)

- All limits in this Factsheet are at least as protective as those previously established; therefore, backsliding does not apply.

- Backsliding proposed in this Factsheet for the reissuance of this permit conform to the anti-backsliding provisions of Section 402(o) of the Clean Water Act, and 40 § CFR 122.44.

### **ANTIDegradation:**

In accordance with Missouri's Water Quality Standard [10 CSR 20-7.031(2)], the department is to document by means of Antidegradation Review that the use of a water body's available assimilative capacity is justified. Degradation is justified by documenting the socio-economic importance of a discharging activity after determining the necessity of the discharge.

- Renewal no degradation proposed and no further review necessary.

- New and/or expanded discharge, please see **APPENDIX B – ANTIDegradation ANALYSIS**.

### **APPLICABLE PERMIT PARAMETERS:**

Effluent parameters contained in Factsheets and Missouri State Operating Permits are obtained from Technology Based Effluent Limit (TBEL), Missouri's Effluent Regulations [10 CSR 20-7.015], Missouri's Water Quality Standards [10 CSR 20-7.031], previous Missouri State Operating Permits, and from Operating Permit Applications.

**SCHEDULE OF COMPLIANCE (SOC):**

A schedule of remedial measures included in a permit, including an enforceable sequence of interim requirements (actions, operations, or milestone events) leading to compliance with the Missouri Clean Water Law, its implementing regulations, and/or the terms and conditions of an operating permit.

Applicable ;

The time given for effluent limitations of this permit listed under Interim Effluent Limitation and Final Effluent Limitations were established in accordance with [10 CSR 20-7.031(10)].

Not Applicable ;

This permit does not contain a SOC.

**STORM WATER POLLUTION PREVENTION PLAN (SWPPP):**

A plan to schedule activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the state. The plan may include, but is not limited to, treatment requirements, operating procedures, and practices to control facility site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

Applicable ;

A SWPPP shall be developed and implemented for each site and shall incorporate required practices identified by the department with jurisdiction, incorporate erosion control practices specific to site conditions, and provide for maintenance and adherence to the plan.

Not Applicable ;

At this time, the permittee is not required to develop and implement a SWPPP.

**WASTELOAD ALLOCATIONS (WLA) FOR LIMITS:**

As per [10 CSR 20-2.010(78)], the amount of pollutant each discharger is allowed by the department to release into a given stream after the department has determined to total amount of pollutant that may be discharged into that stream without endangering its water quality.

Applicable ;

Wasteload allocations were calculated where applicable using water quality criteria or water quality model results and the dilution equation below:

$$C = \frac{(Cs \times Qs) + (Ce \times Qe)}{(Qe + Qs)} \quad (\text{EPA/505/2-90-001, Section 4.5.5})$$

- Where C = downstream concentration
- Cs = upstream concentration
- Qs = upstream flow
- Ce = effluent concentration
- Qe = effluent flow

Chronic wasteload allocations were determined using applicable chronic water quality criteria (CCC: criteria continuous concentration) and stream volume of flow at the edge of the mixing zone (MZ). Acute wasteload allocations were determined using applicable water quality criteria (CMC: criteria maximum concentration) and stream volume of flow at the edge of the zone of initial dilution (ZID).

Water quality based maximum daily and average monthly effluent limitations were calculated using methods and procedures outlined in USEPA’s “Technical Support Document For Water Quality-based Toxics Control” (EPA/505/2-90-001).

Not Applicable ;

Wasteload allocations were not calculated.

**WLA MODELING:**

Applicable ;

Not Applicable ;

A WLA study was either not submitted or determined not applicable by department staff.

**WHOLE EFFLUENT TOXICITY (WET) TEST:**

As per [10 CSR 20-7.031(1)(CC)], a toxicity test conducted under specified laboratory conditions on specific indicator organism; and as per [40 CFR §122.2], the aggregate toxic effect of an effluent measured directly by a toxicity test.

Applicable ;

Effective July 15, 2005, upon revision, renewal, modification, or issuance, all Missouri State Operating Permits under the NPDES will incorporate use of the following guidelines for determining the applicability and requirements for WET testing. WET testing requirements are established by the WET Test Policy, 120 § 308 of the Federal Water Pollution Control Act, and 40 CFR § 136.

Please check WET tests applicability for this facility:

- All major discharge facilities ;
- Facilities that are exceeding or routinely exceed their design flow ;
- Most municipals, domestic sewage dischargers ;
- Industrial dischargers or other dischargers that may alter their production processes throughout the year ;
- Facilities that may handle large quantities of toxic substances, or substances that are toxic in large amounts ; and
- Facilities that have been granted seasonal relief of numeric limitations .

Not Applicable ;

At this time, the permittee is not required to conduct WET test for this facility.

**303(d) LIST & TOTAL MAXIMUM DAILY LOAD (TMDL):**

Section 303(d) of the federal Clean Water Act requires that each state identify waters that are not meeting water quality standards and for which adequate water pollution controls have not been required. Water quality standards protect such beneficial uses of water as whole body contact (such as swimming), maintaining fish and other aquatic life, and providing drinking water for people, livestock and wildlife. The 303(d) list helps state and federal agencies keep track of waters that are impaired but not addressed by normal water pollution control programs.

A TMDL is a calculation of the maximum amount of a given pollutant that a body of water can absorb before its water quality is affected. If a water body is determined to be impaired as listed on the 303(d) list, then a watershed management plan will be developed that shall include the TMDL calculation

Applicable ;

Not Applicable ;

Each GPCF shall be evaluated on a case by case basis for impacts to a 303(d) listed stream. Facilities discharging pollutants for which the stream is impaired may be required to obtain a site specific permit.

## Outfall #001 – Main Facility Outfall

### EFFLUENT LIMITATIONS TABLE:

PARAMETER	UNIT	BASIS FOR LIMITS	DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MODIFIED	PREVIOUS PERMIT LIMITATIONS
FLOW	GPD	1	*		*	NO	
BOD <sub>5</sub>	MG/L	8	45		30	YES	65/45
TSS	MG/L	8	100		50	YES	110/70
pH (S.U.)	SU	2/3	6.5 – 9		6.5 – 9	YES	6.0-9.0
RAINFALL	INCHES	8	*		*	NO	

\* - Monitoring requirement only

\*\* - # of colonies/100mL; the Monthly Average for Fecal Coliform is a geometric mean.

\*\*\* - Parameter not previously established in previous state operating permit.

#### Basis for Limitations Codes:

1. State or Federal Regulation/Law
2. Water Quality Standard (includes RPA)
3. Water Quality Based Effluent Limits
4. Lagoon Policy
5. Ammonia Policy
6. Antidegradation Policy
7. Water Quality Model
8. Best Professional Judgement
9. TMDL or Permit in lieu of TMDL
10. WET test Policy

### OUTFALL #001 – DERIVATION AND DISCUSSION OF LIMITS:

- **Biochemical Oxygen Demand (BOD<sub>5</sub>)** Effluent limitations have been established consistent with other industrial storm water facilities. These limits are considered protective of water quality standards. Monitoring data from existing facilities indicates these limits have been attained already.
- **Total Suspended Solids (TSS)** Effluent limitations have been established consistent with other industrial storm water facilities. These limits are considered protective of water quality standards. Monitoring data from existing facilities indicates these limits have been attained already.
- **pH** Water contaminants shall not cause pH to be outside the range of 6.5-9.0 standard pH units. [10 CSR 20-7.031(4)(E)].
- **Rainfall** Monitoring requirement only.

### Administrative Requirements

On the basis of preliminary staff review and the application of applicable standards and regulations, the Department, as administrative agent for the Missouri Clean Water Commission, proposes to issue a permit(s) subject to certain effluent limitations, schedules, and special conditions contained herein and within the operating permit. The proposed determinations are tentative pending public comment.

#### PUBLIC NOTICE:

As per the Missouri Clean Water Law, the Missouri Clean Water Commission, and the federal Clean Water Act, persons wishing to comment on Missouri State Operating Permits are directed to do so by a department approved Public Notice coversheet. This Public Notice coversheet is attached to a Missouri State Operating Permit during the Public Notice period.

The Public Notice period for this operating permit is tentatively schedule to begin on August 3, 2007 or is in process.

**Date of Factsheet:** 7-16-07

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