

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-G920000

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

**FACILITY DESCRIPTION**

Outfalls 001, 002, etc. Standard Industrial Classification (SIC) Code: # 2875 (Fertilizers, Mixing Only)

Mixed feedstock composting operations under 20 acres. Operation is to be designed and operated as a no-discharge facility.

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, 2012  
Effective Date

  
Sara Parker Pauley, Director, Department of Natural Resources

November 29, 2017  
Expiration Date

  
John Madras, Director, Water Protection Program

## APPLICABILITY

1. This permit authorizes the operation of no-discharge active composting operations that are under 20 acres in size. The acreage is measured by calculating the area that is within the composting perimeter, including unloading, storage, and handling of composting materials and finished compost. It does not include buffer zones, parking lots, maintenance facilities and storm water stormwater control basins. Any organic materials suitable for composting may be used as a feedstock. Industrial wastes must receive prior approval from the department. Approval may be obtained by writing to the department's Water Protection Program, P.O. Box 176, Jefferson City MO 65102-0176.
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 the composting operations to apply for an individual National Pollutant Discharge Elimination System (NPDES) permit, the department may do so.
3. If at any time the owner of a composting operation should desire to apply for an individual NPDES permit, 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 apply to the discharge of any water except emergency discharges during catastrophic rain events.
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 apply to the compost quality, distribution, or use of the finished compost, except for pathogen reduction terms found in REQUIREMENTS section below.
8. This permit does not apply to composting operations located within 100 feet of a watercourse, 300 feet of a lake, 1,000 feet of a losing stream or sinkhole, or within 300 feet of a water supply well.
9. This permit does not apply to the discharge of any water except emergency discharges during chronic and catastrophic rain events. Catastrophic rain events fall into two categories, the chronic rainfall event and the acute storm event. The chronic event is defined as the 1 in 10 year, 365 day rainfall, which ranges from 44-63 inches depending on the location in the State. The catastrophic storm event is defined as the 1 in 25 year, 24 hr. rainfall, which ranges from 5.6-7.0 inches, depending on the location in the State.

## EXEMPTIONS

1. Distribution or marketing of composts are exempt from NPDES permitting. The Missouri Fertilizer Law (266.291, RSMo) and the Soil Conditioner Law (266.361, RSMo) may apply to these practices.
2. 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.
3. 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 permitting requirements of the Missouri Clean Water Law [10 CSR 20-6.015(3)(B)7.].

## REQUIREMENTS

1. The permittee shall not stockpile raw materials for a period to exceed five (5) calendar days before mixing unless the stockpile location has a stormwater collection system or is roofed.
2. The permittee shall not allow painted or treated wood products to be placed in the compost. Untreated wood is defined as lumber and other wooden materials that have not been chemically treated for resistance to moisture, fire, fungi, insects and other pests, or has not otherwise been treated or manufactured with chemicals, or that does not contain adhesives or resins. Untreated wood does not include plywood, particleboard, chipboard, and wood with other than insignificant quantities of paint, coating or finish.

REQUIREMENTS (continued)

3. Any storm water collection basin is subject to construction permitting requirements under Missouri Clean Water Commission (MCWC) regulation [10 CSR 20-6.010 and 6.015], Permits, Construction and Operating Permits, and No Discharge Permits.. Basins must be sealed in accordance with MCWC regulation [10 CSR 20-8], Design Guides.
4. The composting area shall have a base, which may be made of asphalt, concrete, compacted earth, or other materials and shall comply with the permeability limitations under MCWC regulation [10 CSR 20-8.020(13)(A)4.], Design Guides, Design of Small Sewage Works, Secondary Treatment, Waste Stabilization Ponds, Basis for design.
5. Water Quality Standards
  - (a) Discharges to waters of the state shall not cause a violation of water quality standards rule under MCWC regulation [10 CSR 20-7.031] Water Quality, Water Quality Standards, 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; or
    - (8) Waters shall be free from used tires, car bodies, appliances, demolition debris, used vehicles or equipment and solid waste as defined in the Missouri's Solid Waste Management Law, Section 260.200, RSMo, except as the use of such materials is specifically permitted pursuant to Sections 260.200-260.247, RSMo.
6. If the compost includes greater than five percent (5%) biosolids, septage, or any other form of domestic sewage, land application or distribution of the finished product shall follow the requirements of [40 CFR 503], Standards for the use or Disposal of Sewage Sludge. If the compost is to be distributed to the public, it shall have undergone one (1) of the Processes to Further Reduce Pathogens found in Appendix B of [40 CFR 503]. Detailed records of temperature monitoring related to [40 CFR 503] shall be maintained and made available to the department upon request.
7. All outfalls must be clearly marked in the field.
8. 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 result 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.

REQUIREMENTS (continued)

9. Compost feedstocks shall be tested for metals **prior to use in compost** unless the operator can provide information in order for the department to make the determination that testing is not required. The feedstocks shall at least be tested for Arsenic, Cadmium, Chromium, Copper, Lead, Mercury, Molybdenum, Nickel, Selenium, and Zinc. Data generated by the producer of the feedstock is acceptable. The metals shall be reported in mg/kg, dry weight. The department may require testing of additional parameters for some feedstocks. Yard waste, tree trimmings, cardboard, paper, sawdust, and vegetable waste are exempted from this requirement unless requested by the department. Results of metals testing shall be submitted to the Water Protection Program for review and approval. Compost that exceeds the Low Metals Concentration in 40 CFR 503 shall not be distributed to the public. These concentrations can also be found in Table 2 of Water Quality Guide Sheet 425, available from the Water Protection Program by request.
10. Permittee shall notify the Department within 24 hours of any discharge and shall submit a written report detailing the cause of the discharge and what steps have been taken to prevent such a discharge from recurring. The written report shall be submitted to the Department within 5 days of the discharge.
11. Permittee shall adhere to the following Best Management Practices (BMPs):
  - (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 stormwater 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 onsite shall adhere to applicable federal and state regulations concerning underground storage, aboveground storage, and dispensers, and shall include spill prevention, control and countermeasures-;
  - (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 stormwater-;
  - (d) Provide good housekeeping practices onsite to keep trash or other solid waste from entering waters of the state-; and
  - (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 stormwater. In addition, inspect these structures within 24 hours of each rainfall event of one inch (1") or more. Inspect ~~the~~ facility in general to ensure that any BMPs are continually implemented and remain effective.

ANNUAL REPORT

Records shall be maintained and summarized into an annual operating report which shall be submitted by January 28th of each calendar year for the previous calendar year period. The report shall include the following:

- (a) Record of maintenance and repairs performed during the previous calendar year, average number of times per month the facility is checked to see if it is operating properly, and description of any unusual operating conditions encountered during the calendar year;
- (b) The number of days the lagoon has discharged during the calendar year, the discharge flow, the reasons discharge occurred and effluent analysis performed;
- (c) A summary of the irrigation operations including freeboard at the start and end of the irrigation season, the number of days of irrigation for each month, the total gallons irrigated, the total acres used, crops grown, crop yields per acre, the application rate in inches/ per acre per day and for the calendar year, the monthly and annual precipitation received at the facility and summary of testing results: and
- (d) Information on quantities and types of all raw materials stockpiled or composted during the calendar year; results of any testing performed; quantity of compost sold, disposed or given away; and quantity onsite at the end of the calendar year.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS					PAGE NUMBER 5 of 7	
					PERMIT NUMBER MO-G920000	
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>Outfall #</u> - Emergency discharge from basin (Note 1)						
Flow	MGD	*			once/discharge/day**	24 hr. estimate
Biochemical Oxygen Demand <sub>5</sub>	mg/L	45		30	once/discharge/day**	grab
Total Suspended Solids	mg/L	100		50	once/discharge/day**	grab
<i>Escherichia coli</i> ( <i>E. coli</i> )****	#/100mL	*		*	once/discharge/day**	grab
pH – Units	SU	***		***	once/discharge/day**	grab
Oil & Grease	mg/L	15		10	once/discharge/day**	grab
Ammonia nitrogen as N	mg/L	*		*	once/discharge/day**	grab
Nitrate plus nitrite as N	mg/L	*		*	once/discharge/day**	grab
<u>Outfall #</u> - Land Application Operational Monitoring (Note 2)						
Basin Freeboard	Feet	*			once/month	measured
Irrigation Period	Hours	*			daily	total
Volume Irrigated	gallons	*			daily	total
Application Area	acres	*			daily	total
Application Rate	gallons/acre	*			daily	total
Rainfall	inches	*			daily	total
<u>Outfall #</u> - Irrigated Water (Note 3)						
Total Kjeldahl Nitrogen as N	mg/L	*			once/year	grab
Ammonia Nitrogen as N	mg/L	*			once/year	grab
Nitrate/Nitrite as N	mg/L	*			once/year	grab
Phosphorus as P	mg/L	*			once/year	grab
pH	SU	***			once/year	grab
MONITORING REPORTS SHALL BE SUBMITTED <u>ANNUALLY</u> ; THE FIRST REPORT IS DUE <u>January 28, 2013</u> . 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.						

A. EFFLUENT LIMITATIONS AND MONITORING					PAGE NUMBER 6 of 7	
REQUIREMENTS					PERMIT NUMBER MO-G920000	
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>Outfall #</u> - Compost Feedstock (Notes 4 & 5)						
Arsenic	mg/kg	*****			once	composite
Cadmium	mg/kg	*****			once	composite
Chromium	mg/kg	*****			once	composite
Copper	mg/kg	*****			once	composite
Lead	mg/kg	****			once	composite
Mercury	mg/kg	*****			once	composite
Molybdenum	mg/kg	*****			once	composite
Nickel	mg/kg	*****			once	composite
Selenium	mg/kg	*****			once	composite
Zinc	mg/kg	*****			once	composite
MONITORING REPORTS SHALL BE SUBMITTED <u>ANNUALLY</u> ; THE FIRST REPORT IS DUE <u>January 28, 2013</u> . THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						
B. STANDARD CONDITIONS						
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A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

- \* Monitoring requirement only.
- \*\* Monitor only when discharge occurs. Report as no-discharge when a discharge does not occur during the report period.
- \*\*\* 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.
- \*\*\*\* Comply with water quality standards per requirements #5.
- \*\*\*\*\* Test each feedstock

Note 1 - **No-discharge facility requirements.** Storm water shall be stored and land applied during suitable conditions so that there is no-discharge from any stormwater storage basin or irrigation site. An emergency discharge may occur when excess water has accumulated above feasible irrigation rates due to precipitation exceeding the 1-in-10-year, 365-day rainfall or the 25-year, 24-hour storm event.

Note 2 - Basin freeboard shall be reported as basin water level in feet below the overflow level.

Note 3 - Water that is land applied shall be sampled at the irrigation pump or wet well. Land application shall not exceed 24 inches per acre per year.

Note 4 - Testing is required for a feedstock source, not each discrete batch of feedstock. Additional testing of the feedstock is not required unless changes occur that impacts the feedstock.

Note 5 – For the purposes of this permit, a composite sample shall include at least 7 discrete subsamples combined.

#### 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 the activities covered by this permit have ceased and the site “closed” and all materials removed from the site, the permittee may request termination of this permit prior to its expiration date. The permittee shall submit Form H for “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.

**Missouri Department of Natural Resources**  
**FACT SHEET**  
**FOR THE PURPOSE OF RENEWAL**  
**OF**  
**MO-G920000 MASTER GENERAL PERMIT**

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. Permits in Missouri 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). NPDES operating permits 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 .

**Facility Information**

NPDES #: MO-G920000  
Facility Name:  
Facility Address:  
Owner's Name:  
Owner's Address:

Facility Region:  
Facility County:

Facility Type:  
Facility SIC Code(s):

Facility Description: Mixed feedstock composting sites less than 20 acres in size. Facilities are not allowed to discharge except during the catastrophic or chronic rainfall events. Any organic material that will compost can be used as a feedstock, including biosolids, industrial sludges, etc. In addition, amendments such as gypsum or sand may be added to the compost.

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

Comments: These composting facilities are to be designed to capture all storm water runoff from the facility. The facility is defined as the composting perimeter, including unloading, storage, and handling of composting materials and finished compost. The captured storm water may be land applied, used to add moisture to the compost, or pumped and hauled to a wastewater treatment facility. Discharge is authorized only if rainfall at the facility exceeds the 1 in 10 year, 365 day chronic rainfall event [ranging from 44-63 inches] or the 1 in 25 year, 24 hr. catastrophic rainfall event [ranging from 5.6-7.0 inches]. These totals vary depending on location in the state. In the event of a discharge, the facility must demonstrate that the rainfall event occurred and that proper land application has occurred during the previous year.

## **Definitions**

**Compost:** Compost is organic material that can be used as a soil amendment or as a medium to grow plants. Mature compost is a stable material with a content called humus that is dark brown or black and has a soil-like, earthy smell. It is created by: combining organic wastes in proper ratios into piles, rows, or vessels; adding bulking agents (e.g., wood chips) as necessary to accelerate the breakdown of organic materials; and allowing the finished material to fully stabilize and mature through a curing process.

## **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 checked="" type="checkbox"/> ; No <input 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 checked="" type="checkbox"/> ; No <input type="checkbox"/>
Subsurface Water [10 CSR 20-7.015(7)]:	Yes <input checked="" type="checkbox"/> ; No <input 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. Permits covered under MOG-920000 are to be operated such that no discharge occurs, thus no degradation is proposed.

### **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.

**BIO-SOLIDS, SLUDGE, & SEWAGE SLUDGE:**

Bio-solids are solid materials resulting from wastewater treatment that meet federal and state criteria for beneficial uses (i.e. fertilizer). Sludge is any solid, semi-solid, or liquid waste generated from a municipal, commercial, or industrial wastewater treatment plant, water supply treatment plant, or air pollution control facility or any other such waste having similar characteristics and effect. Sewage sludge is solids, semi-solids, or liquid residue generated during the treatment of domestic sewage in a treatment works; including but not limited to, domestic septage; scum or solids removed in primary, secondary, or advanced wastewater treatment process; and a material derived from sewage sludge. Sewage sludge does not include ash generated during the firing of sewage sludge in a sewage sludge incinerator or grit and screening generated during preliminary treatment of domestic sewage in a treatment works.

Applicable ;

These facilities are allowed to receive sewage sludges or biosolids from domestic wastewater treatment facilities. These facilities are required to comply with 40 CFR Part 503.

Not Applicable ;

This condition is not applicable to the permittee for this specific facility.

**REASONABLE POTENTIAL ANALYSIS (RPA):**

Limitations must control all pollutants or pollutant parameters that are or may be discharged at a level which will cause, have reasonable potential to cause, or contribute to an excursion above the Missouri Water Quality Standards.

Applicable ;

A RPA was conducted for this facility for (parameters) and determined that this facility has the potential to cause or contribute to violations of Water Quality. Please see **APPENDIX C – RPA RESULTS**.

Not Applicable ;

A RPA was not conducted for these facility.

**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 where 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:

$$C = \frac{(C_s \times Q_s) + (C_e \times Q_e)}{(Q_e + Q_s)} \quad (\text{EPA/505/2-90-001, Section 4.5.5})$$

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.

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

**EFFLUENT LIMITATIONS TABLE:**

PARAMETER	UNIT	BASIS FOR LIMITS	DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MODIFIED	PREVIOUS PERMIT LIMITATIONS
FLOW	GPD	1	*		*	NO	S
BIOCHEMICAL OXYGEN DEMAND (BOD <sub>5</sub> )	MG/L	1	45		30	NO	S
TOTAL SUSPENDED SOLIDS (TSS)	MG/L	1	100		50	NO	S
PH (S.U.)	SU	1	6.5 – 9		6.5 – 9	NO	S
AMMONIA AS N	MG/L	2/3/5	*		*	NO	S
<i>ESCHERICHIA COLI (E. COLI)</i>	***	1/2	*		*	YES	FECAL 1000/400
NITRATE + NITRITE AS N	MG/L	1/2	*		*	NO	S
OIL & GREASE (MG/L)	MG/L	1	15		10	NO	S

\* - 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.

N/A – Not applicable

S – Same as previous operating permit

**Basis for Limitations Codes:**

- |  |                                   |
|--|-----------------------------------|
| 1. State or Federal Regulation/Law       | 6. Antidegradation Policy         |
| 2. Water Quality Standard (includes RPA) | 7. Water Quality Model            |
| 3. Water Quality Based Effluent Limits   | 8. Best Professional Judgement    |
| 4. Lagoon Policy                         | 9. TMDL or Permit in lieu of TMDL |
| 5. Ammonia Policy                        | 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, particularly since these facilities are only authorized to discharge as a result of catastrophic or chronic rainfall event.
- **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, particularly since these facilities are only authorized to discharge as a result of catastrophic or chronic rainfall event.

- **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)].
- **Total Ammonia Nitrogen.** Monitoring requirement only. Monitoring for ammonia are included to determine whether “reasonable potential” to exceed water quality standards exists after the discharge begins.
- ***Escherichia coli (E. coli)***. Discharge shall not contain more than a monthly geometric mean of colonies/100 mL and a daily maximum of colonies/100 mL as set forth in 10 CSR 20-7.031 Table A.
- **Oil & Grease.** Conventional pollutant, effluent limitation for protection of aquatic life; 10 mg/L monthly average, 15 mg/L daily maximum.

#### **OPERATIONAL MONITORING & LAND APPLICATION:**

**All parameters** This monitoring required to demonstrate proper operation of a no discharge facility, and to document that excessive nutrients are not land applied. Excessive nutrients is defined as greater than agronomic rates. Excessive metals is defined as exceeding the pound per acre limits in Table 3 of Water Quality Guide Sheet 425. Excessive nutrients and metals are not anticipated, due to the dilute nature of the storm water entering the basin.

### **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 was from October 5, 2012 to November 5, 2012. No responses received or responses to the Public Notice of this operating permit do not warrant the modification of effluent limits and/or the terms and conditions of this permit.

**Date of Factsheet:** 9-6-2012

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