

January 30, 2009

Mr. and Mrs. Joseph A. and Sheryl Sandhaus  
Oak Forest Homeowners' Association  
1524 Oak Forest Dr.  
Rolla, MO 65401

RE: Missouri State Operating Permit # MO0113263 Renewal

Dear Mr. and Mrs. Sandhaus:

Pursuant to the Federal Water Pollution Control Act, under authority granted to the State of Missouri and in compliance with the Missouri Clean Water Law and associated Missouri Clean Water Commission regulations, the department has renewed, and you will find enclosed, Missouri State Operating Permit (MSOP) # MO0113263 for Oak Forest Subdivision Wastewater Treatment Facility, Rolla, Phelps County.

Please read enclosed MSOP and attached Standard Conditions. Each contains important information on monitoring requirements, effluent limitations, sampling frequencies and reporting requirements.

Discharge monitoring reports that may be required by the special conditions must be submitted on a periodic basis. Enclosed you will find copies of necessary report forms and these should be submitted to the department's Southeast Regional Office, 2155 N. Westwood Blvd., Poplar Bluff, MO 63901. Please contact the department's Southeast Regional Office for additional forms via telephone at (573) 840-9750.

Enclosed MSOP is both your federal discharge permit and your state operating permit, and replaces all previous state operating permits issued for this facility under this permit number. In all future correspondence regarding this facility, please refer to your MSOP number as shown on page one (1) of your MSOP.

As a result of changing regulations and subsequent policy implementation by the department's Water Protection Program the following changes have been implemented in subject MSOP renewal:

**1. Ammonia Limit and Temperature Monitoring:**

As of August 9, 2007, the department's Water Protection Program implemented policy to address discharges of Ammonia, a toxic substance, from wastewater treatment facilities. Since the receiving stream your wastewater treatment facility discharges effluent into is unclassified, this subject MSOP renewal contains final effluent monitoring requirements for the Ammonia and Temperature parameters, and this data will be used to determine the applicable final effluent limitation for the Ammonia parameter for your MSOP at the next renewal.

The department recommends that you obtain the services of a licensed professional engineer registered in the State of Missouri to determine travel time from subject wastewater treatment facility's discharge point to the confluence with the first classified stream segment for modeling Ammonia decay. In lieu of this Ammonia decay modeling data, the department will determine future final effluent limitations for the Ammonia parameter for your next MSOP renewal based on no Ammonia decay.

If you choose to complete this Ammonia decay modeling, please use TR-55 method (*Natural Resource Conservation Service (NRCS), Urban Hydrology for Small Watersheds, Technical Release No. 55, June 1986*) for travel time determination ([ftp://ftp.wcc.nrcs.usda.gov/downloads/hydrology\\_hydraulics/tr55/tr55.pdf](ftp://ftp.wcc.nrcs.usda.gov/downloads/hydrology_hydraulics/tr55/tr55.pdf)). Please include a map, schematic or description of flow segments with the submitted calculations. A worksheet with instructions is available upon request from the department.

You may contact the professional board of registration of the Missouri Society of Engineers at (573) 751-0047 for a list of professional engineers in your area.

## **2. Sampling Type Requirement Change:**

Quarterly sampling requirements remain in this renewed MSOP. Please note that in accordance with Missouri Clean Water Commission regulation 10 CSR 20-7.015(8)(C)3.B., Water Quality, Effluent Regulations, Effluent Limitations for All Waters Except Those in Paragraphs (1)(A)1.-6., Monitoring Requirements, the department has changed the sampling type requirements from grab samples to modified composite samples for the Biochemical Oxygen Demand<sub>5</sub> (BOD<sub>5</sub>) and Total Suspended Solids (TSS) parameters. The department's Water Protection Program's policy requires mechanical treatment facilities to utilize modified composite sampling or twenty-four (24) hour composite sampling for the BOD and TSS parameters.

If you were affected by this MSOP renewal, you may appeal to have the matter heard by the Administrative Hearing Commission. To appeal, you must file a petition with said Administrative Hearing Commission within thirty (30) calendar days after the mailed date or delivered date of this decision, whichever date was earlier. If you send such petition by registered or certified mail, petition will be deemed filed on the mailed date. If you send petition by any method other than registered or certified mail, petition will be deemed filed on the received date by the Administrative Hearing Commission.

You will be contacted by a member of our department's Southeast Regional Office's Rolla Satellite Office staff within forty-five (45) days to schedule an Environmental Assistance Visit (EAV). During this EAV, staff will review your MSOP requirements with you and answer any questions. If you would like to schedule an earlier EAV or if you have any questions concerning this MSOP, please contact Mr. Bruce D. Volner at (573) 368-3625 in the department's Southeast Regional Office's Rolla Satellite Office, PO Box 250 (111 Fairgrounds Rd.), Rolla, MO 65402-0250.

Sincerely,

SOUTHEAST REGIONAL OFFICE

Gary L. Gaines, P.E.  
Regional Director

GLG:bdv:kv

Enclosures

**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,

Permit No.: **MO0113263**

Owner: Oak Forest Homeowners' Association  
Owner's Address: 1524 Oak Forest Dr., Rolla, MO 65401

Continuing Authority: Same as above  
Continuing Authority's Address: Same as above

Facility Name: Oak Forest Subdivision WWTF  
Facility Address: 1525 Oak Forest Dr., Rolla, MO 65401

Legal Description: NE ¼, SW ¼, Sec. 31, T38N, R7W, Phelps County  
Latitude/Longitude: (+3758131/-09144350)

Receiving Stream: Unnamed tributary to Burgher Branch (U)  
First Classified Stream and ID: Burgher Branch (C) (01865)  
USGS Basin & Sub-watershed No.: (07140102-010007)

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 – Subdivision – SIC # 4952 – **Certified Wastewater Operator Not Required**

Extended aeration/Sludge disposal by contract hauler

Design population equivalent = 181

Design flow = 13,600 gallons per day

Actual flow = 7,000 gallons per day

Design sludge production = 3.3 dry tons per year

This operating permit authorizes only wastewater, including stormwater, discharges under the Missouri Clean Water Law and the National Pollutant Discharge Elimination System. This operating permit does not apply to other regulated areas. This operating permit may be appealed in accordance with RSMo Section 644.051.6 and 621.250, 10 CSR 20-6.020, and 10 CSR 20-1.020.

January 30, 2009  
Effective Date

January 30, 2009  
Renewal Date

  
\_\_\_\_\_  
Joseph P. Bindbeutel, Acting Director, Department of Natural Resources

January 29, 2014  
Expiration Date

\_\_\_\_\_  
Gary L. Gaines, P.E., Director, Southeast Regional Office

<b>A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS</b>				PAGE NUMBER 2 of 4		
				PERMIT NUMBER MO0113263		
Permittee authorized to discharge from outfall(s) with serial number(s) as specified in the application for this operating permit. Final effluent limitations shall become effective upon issuance date of this operating permit and remain in effect until the expiration of the operating permit. Such discharges shall be controlled, limited and monitored by 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 # 001</u>						
Flow	MGD	*		*	Once/quarter**	24 hr. estimate
Biochemical Oxygen Demand <sub>5</sub>	mg/L		45	30	Once/quarter**	****
Total Suspended Solids	mg/L		45	30	Once/quarter**	****
pH – Units	SU	***		***	Once/quarter**	Grab
Ammonia as N	mg/L	*		*	Once/quarter**	Grab
Temperature	°C	*		*	Once/quarter**	Grab
MONITORING REPORTS SHALL BE SUBMITTED <u>Quarterly</u> . FIRST REPORT IS DUE: <u>April 28, 2009</u> . THERE SHALL BE <u>NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS</u> .						
<b>B. STANDARD CONDITIONS</b>						
IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS OPERATING PERMIT IS SUBJECT TO ATTACHED <u>Parts I and III</u> STANDARD CONDITIONS DATED <u>October 1, 1980 and August 15, 1994</u> , AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.						

MO 780-0010 (8/91)

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

\* Monitoring and reporting

\*\* See table below for quarterly sampling:

Sample discharge at least once for the months of:	Report is due:
January, February, March (1 <sup>st</sup> Quarter)	April 28
April, May, June (2 <sup>nd</sup> Quarter)	July 28
July, August, September (3 <sup>rd</sup> Quarter)	October 28
October, November, December (4 <sup>th</sup> Quarter)	January 28

\*\*\* pH measured in pH standard units (SUs) and is not to be averaged. pH limited to the range of 6.0–9.0 pH SUs

\*\*\*\* A composite sample made up from a minimum of four (4) grab samples collected within a 24 hour period with a minimum of two (2) hours between each grab sample

**C. SPECIAL CONDITIONS**

1. This operating 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 operating permit; or
- (2) Controls any pollutant not limited in the operating 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’s 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 list of waters of the state not fully achieving the state’s water quality standards, also called the 303(d) list.

C. SPECIAL CONDITIONS (continued)

1. (continued)

The operating permit as modified or reissued under this paragraph shall also contain any other requirements of the Clean Water Act then applicable.

2. All outfalls must be clearly marked in the field.
3. Permittee will cease discharge by connection to areawide wastewater treatment system within 90 days of notice of its availability.
4. Changes in Discharges of Toxic Substances

Permittee shall notify the Director as soon as it knows or has reason to believe:

(a) That any activity has occurred or will occur which would result in the discharge of any toxic pollutant which is not limited in the operating permit, if that discharge will exceed the highest of the following "notification levels":

- (1) One hundred micrograms per liter (100 µg/L);
- (2) Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2,5 dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
- (3) Five (5) times the maximum concentration value reported for the pollutant in the permit application; or
- (4) The level established in Part A of the operating permit by the Director.

(b) That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant, which was not reported in the operating permit application.

5. Report as no-discharge when a discharge does not occur during reporting period.
6. General Criteria. The following 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:
  - (a) 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;
  - (b) Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses;
  - (c) Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses;
  - (d) Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life;
  - (e) There shall be no significant human health hazard from incidental contact with the water;
  - (f) There shall be no acute toxicity to livestock or wildlife watering;
  - (g) Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community; and
  - (h) 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.

C. SPECIAL CONDITIONS (continued)

7. Sludge and Biosolids Use For Domestic Wastewater Treatment Facilities

- (a) Permittee shall comply with pollutant limitations, monitoring, reporting, and other requirements in accordance with the attached permit Standard Conditions.
- (b) If sludge is not removed by a contract hauler, permittee is authorized to land apply biosolids. Permit Standard Conditions, Part III shall apply to the land application of biosolids. Permittee shall notify the department at least 180 days prior to the planned removal of biosolids. The department may require submittal of a biosolids management plan for department review and approval as determined appropriate on a case-by-case basis.

8. Permittee shall comply with any applicable requirements listed in Missouri Clean Water Commission regulations 10 CSR 20-8, Design Guides and 10 CSR 20-9, Treatment Plant Operations, unless facility has received written notification that the department has approved a modification to the requirements. Monitoring frequencies contained in this permit shall not be construed by permittee as a modification of the monitoring frequencies listed in Missouri Clean Water Commission regulation 10 CSR 20-9, Treatment Plant Operations. If a modification of the monitoring frequencies listed in Missouri Clean Water Commission regulation 10 CSR 20-9, Treatment Plant Operations, is needed, permittee shall submit a written request to the department for review and, if deemed necessary, approval.

**Missouri Department of Natural Resources**  
**FACT SHEET**  
**FOR THE PURPOSE OF RENEWAL**  
**OF**  
**MISSOURI STATE OPERATING PERMIT**  
**# MO0113263**  
**OAK FOREST SUBDIVISION**  
**ROLLA, PHELPS COUNTY**

The Federal Water Pollution Control Act ("Clean Water Act" Section 402 Public Law 92-500 as amended) established the National Pollutant 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. 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 Part 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 .

**Part I – Facility Information**

Facility Address: Oak Forest Subdivision, 1525 Oak Forest Dr., Rolla, MO 65401  
 Facility Type: Non-POTW (Subdivision)  
 Facility SIC Code(s): 4952

Facility Description:

Outfall # 001 – Subdivision – SIC #4952 – **Certified Wastewater Operator Not Required**

Extended aeration/Sludge disposal by contract hauler  
 Design population equivalent = 181  
 Design flow = 13,600 gallons per day  
 Actual flow = 7,000 gallons per day  
 Design sludge production = 3.3 dry tons per year

Application Date: June 28, 2007  
 Expiration Date: October 3, 2007  
 Last Inspection: May 14, 2007    In Compliance ;    Non-Compliance

**OUTFALL(S) TABLE:**

OUTFALL	DESIGN FLOW (CFS)	TREATMENT LEVEL	EFFLUENT TYPE	DISTANCE TO CLASSIFIED SEGMENT (MI)
001	.021	Secondary	Treated Domestic Sewage	2.5

Outfall # 001

Legal Description: NE ¼, SW ¼, Sec. 31, T38N, R7W, Phelps County  
 Latitude/Longitude: (+3758131/-09144350)  
 Receiving Stream: Unnamed tributary to Burgher Branch (U)  
 First Classified Stream and ID: Burgher Branch (C) (01865)  
 USGS Basin & Sub-watershed No.: (07140102-010007)

Water Quality History: Evidence of solids with some slight odor in June 2000. May 2007 inspection indicates that facility operating well and sampling indicates that facility is well within limits.

Comments: None.

**Part II – Operator Certification Requirements**

As per [10 CSR 20-9.010(2)(A)], requirements for operation by certified personnel shall apply to all wastewater treatment systems, if applicable, as listed below:

Not Applicable ; Facility not required to have a certified wastewater operator.

**Part III – 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 lists effluent limitations for specific parameters, which are presented in each outfall’s Effluent Limitation Table and further discussed in the Derivation and 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 ; No
- Lake or Reservoir [10 CSR 20-7.015(3)]: Yes ; No
- Losing [10 CSR 20-7.015(4)]: Yes ; No
- Metropolitan No-Discharge [10 CSR 20-7.015(5)]: Yes ; No
- Special Stream [10 CSR 20-7.015(6)]: Yes ; No
- Subsurface Water [10 CSR 20-7.015(7)]: Yes ; No
- All Other Waters [10 CSR 20-7.015(8)]: Yes ; No

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 first classified receiving stream’s beneficial water uses to be maintained may be found in the Receiving Stream Table located below in accordance with [10 CSR 20-7.031(3)].

**RECEIVING STREAM(S) TABLE:**

WATERBODY NAME	CLASS	WBID	DESIGNATED USES*	8-DIGIT HUC	EDU**
Tributary to Burgher Branch	U	---	General Criteria	07140102	Meramec River Basin
Burgher Branch	C	01865	LWW; AQL		

\* - Irrigation (IRR); Livestock and Wildlife Watering (LWW); Protection of Warm Water Aquatic Life and Human Health-Fish Consumption (AQL); Cool Water Fishery (CLF); Cold Water Fishery (CDF); Whole Body Contact Recreation (WBC); Secondary Contact Recreation (SCR); Drinking Water Supply (DWS); Industrial (IND); Groundwater (GRW).

\*\* - Ecological Drainage Unit (EDU)

\*\*\* - Use Attainability Analysis (UAA) has not been submitted

**RECEIVING STREAM(S) LOW-FLOW VALUES TABLE:**

RECEIVING STREAM (U, C, P)	LOW-FLOW VALUES (CFS)		
	1Q10	7Q10	30Q10
Burgher Branch	0	0	0

**MIXING CONSIDERATIONS:**

Mixing Zone: Not Allowed [10 CSR 20-7.031(4)(A)4.B.(I)(a)].

Zone of Initial Dilution: Not Allowed [10 CSR 20-7.031(4)(A)4.B.(I)(b)].

**RECEIVING STREAM MONITORING REQUIREMENTS:** No receiving water monitoring requirements recommended at this time.

**Part IV – Rationale and Derivation of Effluent Limitations, and Permit Conditions**

**ANTI-BACKSLIDING:** A provision in the Federal Regulations [CWA §303(d)(4); CWA §402(c); 40 CFR Part 122.44(I)] that requires a reissued permit to be as stringent as the previous permit with some exceptions.

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

**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.

**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 AND 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 ; Facility has been approved to land apply as per Permit Standard Conditions III and a department approved bio-solids management plan.

**COMPLIANCE AND ENFORCEMENT:** Enforcement is the action taken by the department's Water Protection Program (WPP) to bring an entity into compliance with the Missouri Clean Water Law, its implementing regulations, and/or any terms and conditions of an operating permit. The primary purpose of the enforcement activity in the department's WPP is to resolve violations and return the entity to compliance.

Not Applicable ; Permittee/facility not currently under the department's Water Protection Program enforcement action.

**PRETREATMENT PROGRAM:** The reduction of the amount of pollutants, the elimination of pollutants, or the alteration of the nature of pollutant properties in wastewater prior to or in lieu of discharging or otherwise introducing such pollutants into a Publicly Owned Treatment Works [40 CFR Part 403.3(q)].

Not Applicable ; At this time, permittee not required to implement and enforce a Pretreatment Program.

**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.

Not Applicable ; A Reasonable Potential Analysis (RPA) was not conducted for this facility.

**REMOVAL EFFICIENCY:** Removal efficiency is a method by which the Federal Regulations define Secondary Treatment and Equivalent to Secondary Treatment, which applies to Biochemical Oxygen Demand 5-day (BOD<sub>5</sub>) and Total Suspended Solids (TSS) for Publicly Owned Treatment Works (POTWs). Please see the United States Environmental Protection Agency's (EPA) website for interpretation of percent removal requirements for National Pollutant Discharge Elimination System Permit Application Requirements for Publicly Owned Treatment Works and Other Treatment Works Treating Domestic Sewage at: [www.epa.gov/fedrgstr/EPA-WATER/1999/August/Day-04/w18866.htm](http://www.epa.gov/fedrgstr/EPA-WATER/1999/August/Day-04/w18866.htm)

Not Applicable ; Facility not a POTW. Influent monitoring not required to determine percent removal.

**SANITARY SEWER OVERFLOWS (SSOs), AND INFLOW & INFILTRATION (I&I):** Collection systems are a critical element in the successful performance of the wastewater treatment process. Under certain conditions, poorly designed, built, managed, operated, and/or maintained systems can pose risks to public health, the environment, or both. Causes of SSOs include, but are not limited to, the following: high levels of I&I during wet weather; blockages; structural, mechanical, or electrical failures; collapsed or broken sewer pipes; insufficient conveyance capacity; and vandalism. Effective and continuous management, operation, and maintenance, as well as ensuring adequate capacity and rehabilitation when necessary are critical to maintaining collection system capacity and performance while extending the life of the system.

Not Applicable ; Facility not required to develop or implement a program for maintenance and repair of the collection system; however, it is a violation of Missouri State Environmental Laws and Regulations to allow untreated wastewater to discharge to waters of the state.

**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.

Not Applicable ; This operating 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.

Not Applicable ; At this time, permittee not required to develop and implement a SWPPP.

**VARIANCE:** As per the Missouri Clean Water Law § 644.061.4, variances shall be granted for such period of time and under such terms and conditions as shall be specified by the commission in its order. The variance may be extended by affirmative action of the commission. In no event shall the variance be granted for a period of time greater than is reasonably necessary for complying with the Missouri Clean Water Law §§644.006 to 644.141 or any standard, rule or regulation promulgated pursuant to Missouri Clean Water Law §§644.006 to 644.141.

Not Applicable ; This operating permit not drafted under premises of a petition for variance.

**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.

Not Applicable ; Wasteload allocations were not calculated.

**WASTELOAD ALLOCATIONS (WLA) MODELING:**

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 Part 122.2], the aggregate toxic effect of an effluent measured directly by a toxicity test.

Not Applicable ; At this time, permittee 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.

Not Applicable ; Facility does not discharge to a 303(d) listed stream.

**Part V – Effluent Limits Determination**

*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	*	N/A	*	NO	S
BOD <sub>5</sub>	MG/L	1	N/A	45	30	NO	S
TSS	MG/L	1	N/A	45	30	NO	S
pH	SU	1	**	N/A	**	NO	S
TEMPERATURE	°C	1/9	*	N/A	*	YES	***
AMMONIA AS N	MG/L	3/5	*	N/A	*	YES	***
MONITORING FREQUENCY	Please see Minimum Sampling and Reporting Frequency Requirements in the Derivation and Discussion Section below.						

\* - Monitoring requirement only

\*\* - pH measured in pH standard units (SUs) and is not to be averaged. pH limited to the range of 6.0–9.0 pH SUs

\*\*\* - 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       | 7. Antidegradation Policy          |
| 2. Water Quality Standard (includes RPA) | 8. Water Quality Model             |
| 3. Water Quality Based Effluent Limits   | 9. Best Professional Judgment      |
| 4. Lagoon Policy                         | 10. TMDL or Permit in lieu of TMDL |
| 5. Ammonia Policy                        | 11. WET Test Policy                |
| 6. Dissolved Oxygen Policy               |                                    |

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

- **Flow.** In accordance with [40 CFR Part 122.44(i)(1)(ii)], the volume of effluent discharged from each outfall is needed to assure compliance with permitted effluent limitations. If permittee is unable to obtain effluent flow, then it is the responsibility of permittee to inform the department, which may require the submittal of an operating permit modification.
- **Biochemical Oxygen Demand (BOD<sub>5</sub>).** Effluent limitations have been retained from previous state operating permit, please see the **APPLICABLE DESIGNATION OF WATERS OF THE STATE** sub-section of the **Receiving Stream Information.**
- **Total Suspended Solids (TSS).** Effluent limitations have been retained from previous state operating permit, please see the **APPLICABLE DESIGNATION OF WATERS OF THE STATE** sub-section of the **Receiving Stream Information.**
- **pH.** Effluent limitations have been retained from previous state operating permit, please see the **APPLICABLE DESIGNATION OF WATERS OF THE STATE** sub-section of the **Receiving Stream Information.**
- **Total Ammonia Nitrogen, Temperature.** Monitoring requirement only. Monitoring for temperature and ammonia are included to determine whether “reasonable potential” to exceed water quality standards exists after the discharge begins.
- **Fecal Coliform.** This facility’s discharge is greater than two (2) miles from the first classified stream. Therefore, in accordance with [10 CSR 7.015(8)(B)(4)], standard limits for fecal coliform are not required.
- **Minimum Sampling and Reporting Frequency Requirements.**

PARAMETER	SAMPLING FREQUENCY	REPORTING FREQUENCY
FLOW	ONCE/QUARTER	ONCE/QUARTER
BOD <sub>5</sub>	ONCE/QUARTER	ONCE/QUARTER
TSS	ONCE/QUARTER	ONCE/QUARTER
pH (S.U.)	ONCE/QUARTER	ONCE/QUARTER
TEMPERATURE (°C)	ONCE/QUARTER	ONCE/QUARTER
AMMONIA AS N	ONCE/QUARTER	ONCE/QUARTER

Once per quarter is the sampling frequency requirement being placed in the permit per 10 CSR 20-7.015 (8) (C). Quarterly sampling is the minimum frequency to yield sufficient data points to perform a reasonable potential analysis at the end of the permit cycle for ammonia. All sampling data taken must be submitted even if sampling occurs more frequently than quarterly. Samples may be collected on a more frequent basis and averaged to show compliance with the monthly or weekly averages listed in the permit. See table below for quarterly sampling collection and reporting.

Sample discharge at least once for the months of:	Report is due:
January, February, March (1 <sup>st</sup> Quarter)	April 28
April, May, June (2 <sup>nd</sup> Quarter)	July 28
July, August, September (3 <sup>rd</sup> Quarter)	October 28
October, November, December (4 <sup>th</sup> Quarter)	January 28

## **Part VI – 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 November 26, 2008 or is in process.

- The Public Notice period for this operating permit was from November 26, 2008 through December 26, 2008. No responses received or responses to the Public Notice of this operating permit do not warrant the modification of final effluent limitations and/or major modifications to the terms and conditions of this operating permit.

**Date of Factsheet:** November 10, 2008

**Date of Revised Factsheet:** January 7, 2009

**COMPLETED BY:**

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