

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, 92nd Congress) as amended,

Permit No. MO-0128597

Owner: Ayers Oil Company
Address: P.O. Box 229, Canton, MO 63435

Continuing Authority: Same as above
Address: Same as above

Facility Name: Ayerco #26 Alexandria Station
Facility Address: US 61 Route 1, Alexandria, MO 63430

Legal Description: SE ¼, NE ¼, NW ¼, Sec. 4, T64N, R5W, Clark County
UTM Coordinates: X=631932.754, Y=4470554.188

Receiving Stream: Unnamed tributary to Mississippi River (U)
First Classified Stream and ID: Mississippi River (P) (00001)
USGS Basin & Sub-watershed No.: (07110001-040007)

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 – Convenience Store/ Truck Stop – SIC #5541/#4952 – **No Certified Operator Required**

Two septic tanks / biotube filter / recirculation tank / recirculating sand filter / discharge basin / sludge disposal by contract hauler
Design population equivalent is 22.
Design flow is 2,000 gallons per day.
Actual flow is 1,500 gallons per day.
Design sludge production is 0.14 dry tons/year.

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.

May 27, 2011
Effective Date


Sara Parker Pauley, Director, Department of Natural Resources

May 26, 2016
Expiration Date


Irene Crawford, Regional Director, Northeast Regional Office

The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The interim effluent limitations shall become effective upon issuance and remain in effect through December 30, 2013. Such discharges shall be controlled, limited and monitored by the permittee as specified below:

OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	INTERIM 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 ₅	mg/L		45	30	once/quarter**	composite***
Total Suspended Solids	mg/L		45	30	once/quarter**	composite***
pH – Units	SU	****		****	once/quarter**	grab
Ammonia as N	mg/L	*		*	once/quarter**	grab
Temperature	°C	*		*	once/quarter**	grab
Escherichia coli (<i>E. coli</i>) (Note 1)	#/100mL	*		*	once/quarter**	grab

MONITORING REPORTS SHALL BE SUBMITTED QUARTERLY; THE FIRST REPORT IS DUE OCTOBER 28, 2011. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

B. STANDARD CONDITIONS

IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED Parts I & III STANDARD CONDITIONS DATED October 1, 1980 and August 15, 1994, AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

- * Monitoring requirement only.
- ** See table below for quarterly sampling
- *** A composite sample is to be made up from grab samples collected within a 24-hour period with a minimum of two (2) hours between each grab sample event. The composite sample shall consist of at least four (4) grab samples taken during the 24-hour period unless flow conditions are such that there is no flow during the grab sample event(s). The discharge monitoring report shall document “no flow” during any potential grab sample event. A reasonable effort must be made to sample at least four (4) times within 24 hours, at least two (2) hours apart.
- **** 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.

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

Note 1 - Interim monitoring requirements for *E. coli* are applicable only during the recreational season from April 1 through October 31. The Monthly Average Limit for *E. coli* is expressed as a geometric mean.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

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 on December 31, 2013 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 #001</u>						
Flow	MGD	*		*	once/quarter**	24 hr. estimate
Biochemical Oxygen Demand ₅	mg/L		45	30	once/quarter**	composite***
Total Suspended Solids	mg/L		45	30	once/quarter**	composite***
pH – Units	SU	****		****	once/quarter**	grab
Ammonia as N	mg/L	*		*	once/quarter**	grab
Temperature	°C	*		*	once/quarter**	grab
Escherichia coli (<i>E. coli</i>) (Note 2)	#/100mL	630		126	once/quarter**	grab

MONITORING REPORTS SHALL BE SUBMITTED QUARTERLY; THE FIRST REPORT IS DUE APRIL 28, 2014. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

B. STANDARD CONDITIONS

IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED Parts I & III STANDARD CONDITIONS DATED October 1, 1980 and August 15, 1994, AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

- * Monitoring requirement only.
- ** See table below for quarterly sampling
- *** A composite sample is to be made up from grab samples collected within a 24-hour period with a minimum of two (2) hours between each grab sample event. The composite sample shall consist of at least four (4) grab samples taken during the 24-hour period unless flow conditions are such that there is no flow during the grab sample event(s). The discharge monitoring report shall document “no flow” during any potential grab sample event. A reasonable effort must be made to sample at least four (4) times within 24 hours, at least two (2) hours apart.
- **** 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.

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

Note 2 – Final limitations and monitoring requirements for *E. coli* are applicable only during the recreational season from April 1 through October 31. The Monthly Average Limit for *E. coli* is expressed as a geometric mean.

C. SPECIAL CONDITIONS

1. 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’s Water Quality Standards.

C. SPECIAL CONDITIONS (continued)

(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.

The 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 a facility with an area-wide management plan per 10 CSR 20-6.010(3)(B)1. or 2. within 90 days of notice of its availability. The permittee shall obtain department approval for closure or alternate use of the facility.
4. Changes in Discharges of Toxic Substances

The 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 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;
 - (4) The level established in Part A of the 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 permit application.

5. Report as no-discharge when a discharge does not occur during the monitoring period.

6. 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.

7. Sludge and Biosolids Use For Domestic Wastewater Treatment Facilities

- (a) Permittee shall comply with the 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. The department may require submittal of a biosolids management plan for department review and approval as determined appropriate on a case-by-case basis.

C. SPECIAL CONDITIONS (continued)

8. The permittee shall comply with any applicable requirements listed in 10 CSR 20-8 and 10 CSR 20-9, unless the facility has received written notification that the Department has approved a modification to the requirements. The monitoring frequencies contained in this permit shall not be construed by the permittee as a modification of the monitoring frequencies listed in 10 CSR 20-9. If a modification of the monitoring frequencies listed in 10 CSR 20-9 is needed, the permittee shall submit a written request to the department for review and, if deemed necessary, approval.
9. Bypasses are not authorized at this facility and are subject to 40 CFR 122.41(m). If a bypass occurs, the permittee shall report in accordance to 40 CFR 122.41(m)(3)(i), and with Standard Condition Part I, Section B, subsection 2.b.

D. SCHEDULE OF COMPLIANCE

E.coli

1. The permittee must attain compliance with the final effluent limits as soon as possible, but no later than December 31, 2013.
2. If disinfection is required to meet the final effluent limits, within nine (9) months from the issuance of the permit, the permittee shall submit to the Northeast Regional Office an engineering plan, construction permit application, and an activity schedule toward meeting disinfection requirement.
3. Within one year of issuance of this permit, the permittee shall report progress made in attaining compliance with the final effluent limits.
4. Within two years of issuance of this permit, the permittee shall submit a report detailing progress made in attaining compliance with the final effluent limits.
5. If the permittee fails to meet any of the interim dates above, the permittee shall notify the Department in writing of the reason for non compliance no later than 14 days following each interim date.
6. If construction was required to meet the final effluent limits, upon completion of construction, the permittee shall submit to the Northeast Regional Office a Statement of Work Complete signed by the owner and a Professional Engineer that is registered in the state of Missouri.

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. Failure to apply for renewal may result in termination of this permit and enforcement action to compel compliance with this condition and the Missouri Clean Water Law.

TERMINATION

In order to terminate this permit, the permittee shall notify the department by submitting Form J, included with the State Operating Permit. The permittee shall complete Form J and mail it to the department at the address noted in the cover letter of this permit. Proper closure of any storage structure is required prior to permit termination. A closure plan shall be submitted to the department and approved prior to initiating closure activities.

DUTY OF COMPLIANCE

The permittee shall comply with all conditions of this permit. Any noncompliance with this permit constitutes a violation of Chapter 644, Missouri Clean Water Law, and 10 CSR 20-6. 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.

Missouri Department of Natural Resources
Statement of Basis
Ayerco #26 Alexandria Station
MO-0128597

A Statement of Basis (Statement) gives pertinent information regarding the applicable regulations and rationale for the development of the NPDES Missouri State Operating Permit (operating permit). This Statement may include Wasteload Allocations, Water Quality Based Effluent Limitations, and Reasonable Potential Analysis calculations as well as any other calculations that effect the effluent limitations of this operating permit. This Statement does not pertain to operating permits that include sewage sludge land application plans and variance procedures, and does not include the public comment process for this operating permit.

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

Part I – Facility Information

Facility Type: Convenience store / Truck stop
Facility SIC Code(s): #5541/#4952

Facility Description: The facility consists of two septic tanks, one with a biotube filter, followed by a recirculation tank and recirculating sand filter. There is a discharge basin and the sludge is disposed of by a contract hauler. The design population equivalent is 22. The design flow is 2,000 gallons per day with an actual flow of 1,500 gallons per day based on the submitted application. The design sludge production is 0.14 dry tons per year.

OUTFALL(S) TABLE:

OUTFALL	DESIGN FLOW (GPD)	TREATMENT LEVEL	EFFLUENT TYPE	DISTANCE TO CLASSIFIED SEGMENT (MI)
#001	2,000	secondary	domestic wastewater	~ 1.7

Receiving Water Body's Water Quality & Facility Performance History: No Stream Surveys or Low Flow Studies have been completed at the facility. The facility was not in compliance when it was last inspected on November 22, 2010. A Letter of Warning was issued for failure to submit Discharge Monitoring Reports (DMRs); failure to clearly mark the outfall; failure to provide proper warning signs; failure to apply for renewal; failure to provide a lockable gate; failure to perform effluent testing by an approved method; and failure to submit sludge monitoring reports. The facility was not discharging at the time the inspector was there and the inspector did not observe any sludge deposits in the receiving stream. The facility was sent a returned to compliance letter on January 25, 2011. The facility has not violated effluent limitations according to the submitted DMRs.

Comments: This is the first renewal for this facility. Removal efficiency has been removed because it is not a Public Owned Treatment Works. The facility was not given Oil & Grease effluent limitations because it does not have a full size commercial kitchen.

Part II A – Operator Certification Requirements

As per [10 CSR 20-9.020(2)(A)] this facility is not required to have a certified operator.

Part II B– Operational Monitoring

As per [10 CSR 20-9.010(4)], this facility is not required to conduct operational monitoring.

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 & Discussion of Limits section.

- Missouri or Mississippi River [10 CSR 20-7.015(2)]:
- Lake or Reservoir [10 CSR 20-7.015(3)]:
- Losing [10 CSR 20-7.015(4)]:
- Metropolitan No-Discharge [10 CSR 20-7.015(5)]:
- Special Stream [10 CSR 20-7.015(6)]:
- Subsurface Water [10 CSR 20-7.015(7)]:
- All Other Waters [10 CSR 20-7.015(8)]:

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 1st 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)].

RECEIVING STREAM(S) TABLE:

WATERBODY NAME	CLASS	WBID	DESIGNATED USES*	8-DIGIT HUC	EDU**
Unnamed tributary to Mississippi River	U	N/A	General Criteria	07110001	Central Plains/ Cuivre/ Salt
Mississippi River	P	00001	LWW, AQL, SCR, DWS, IND, WBC-A***		

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

** - Ecological Drainage Unit

*** - UAA has not been conducted.

Part IV – Rationale and Derivation of Effluent Limitations & 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 operating permit are at least as protective as those previously established; therefore, backsliding does not apply.

AREA-WIDE WASTE TREATMENT MANAGEMENT & CONTINUING AUTHORITY:

As per [10 CSR 20-6.010(8)(A)10.], when a Continuing Authority under paragraph 10 CSR 20-6.010(3)(B)1. or 2. is expected to be available for connection within the next five (5) years, any operating permit issued to a permittee under this paragraph, located within the service area of the paragraph (3)(B)1. or 2. facility, shall contain the following special condition... This language is contained in Special Condition #3 of this operating permit.

COMPLIANCE AND ENFORCEMENT:

Enforcement is the action taken by the 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 WPP is to resolve violations and return the entity to compliance.

Not Applicable - The permittee/facility is not currently under Water Protection Program enforcement action.

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 (BOD₅) and Total Suspended Solids (TSS) for Publicly Owned Treatment Works (POTWs)/municipals. 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

Not Applicable - This wastewater treatment facility is not a POTW. Influent monitoring is not being required to determine percent removal.

SANITARY SEWER OVERFLOWS (SSOs) AND INFLOW AND INFILTRATION (I&I):

Sanitary Sewer Overflows (SSOs) are defined as an untreated or partially treated sewage release and are considered bypassing under state regulation [10 CSR 20-2.010(11)], they should not be confused with the federal definition of bypass. SSOs have a variety of causes including blockages, line breaks, and sewer defects that allow excess storm water and ground water to (1) enter and overload the collection system, and (2) overload the treatment facility. Additionally, SSOs can be also be caused by lapses in sewer system operation and maintenance, inadequate sewer design and construction, power failures, and vandalism. SSOs also include overflows out of manholes and onto city streets, sidewalks, and other terrestrial locations.

Additionally, Missouri RSMo §644.026.1 mandates that the Department require proper maintenance and operation of treatment facilities and sewer systems and proper disposal of residual waste from all such facilities.

Not Applicable - This facility is 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.

Applicable - The time given for complying with the final effluent limitations for E. coli listed under the Final Effluent Limitations were established in accordance with [10 CSR 20-7.015(9)(H)2].

WATER QUALITY STANDARDS:

Per [10 CSR 20-7.031(3)], General Criteria shall be applicable to all waters of the state at all times including mixing zones. Additionally, [40 CFR 122.44(d)(1)] directs the Department to establish in each NPDES permit to include conditions to achieve water quality established under Section 303 of the Clean Water Act, including State narrative criteria for water quality.

WHOLE EFFLUENT TOXICITY (WET) TEST:

A WET test is a quantifiable method of determining if a discharge from a facility may be causing toxicity to aquatic life by itself, in combination with or through synergistic responses when mixed with receiving stream water.

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

40 CFR 122.41(M) - BYPASSES:

The federal Clean Water Act (CWA), Section 402 prohibits wastewater dischargers from “bypassing” untreated or partially treated sewage (wastewater) beyond the headworks. A bypass, which includes blending, is defined as an intentional diversion of waste streams from any portion of a treatment facility, [40 CFR 122.41(m)(1)(i)]. Additionally, Missouri regulation 10 CSR 20-2.010(11) defines a bypass as the diversion of wastewater from any portion of wastewater treatment facility or sewer system to waters of the state. Only under exceptional and specified limitations do the federal regulations allow for a facility to bypass some or all of the flow from its treatment process. Bypasses are prohibited by the CWA unless a permittee can meet all of the criteria listed in 40 CFR 122.41(m)(4)(i)(A), (B), & (C). Any bypasses from this facility are subject to the reporting required in 40 CFR 122.41(l)(6) and per Missouri’s Standard Conditions I, Section B, part 2.b. Additionally, Anticipated Bypasses include bypasses from peak flow basins or similar.

Not Applicable - this facility does not bypass.

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 - The Mississippi River is listed on the 2002 Missouri 303(d) List for Chlordane and PCBs in fish tissue. A TMDL was developed and approved by United States Environmental Protection Agency on November 3, 2006.

- This facility is not considered to be a source of the above listed pollutant(s) or considered to contribute to the impairment of the Mississippi River.

Part V – EFFLUENT LIMITS DETERMINATION

Outfall #001 – Main Facility Outfall

Effluent limitations derived and established in the Effluent Limitations Table are based on current operations of the facility. Future permit action, due to facility modification, may contain new operating permit terms and conditions that supersede the current terms and conditions, including effluent limitations, of this operating permit.

EFFLUENT LIMITATIONS TABLE:

PARAMETER	UNIT	BASIS FOR LIMITS	DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MODIFIED	PREVIOUS PERMIT LIMITATIONS
Flow	MGD	1	*		*	NO	S
Biochemical Oxygen Demand ₅	mg/L	1/4		45	30	NO	S
Total Suspended Solids	mg/L	1/4		45	30	NO	S
pH	SU	1/4	6.5 – 9.0		6.5 – 9.0	YES	6 - 9
Temperature	°C	1/5/9	*		*	YES	**
Ammonia as N	mg/L	2/3/5	*		*	YES	**
Escherichia coli (<i>E. coli</i>) (Interim)	***	1/9	*		*	YES	**
Escherichia coli (<i>E. coli</i>) (Final)	***	1/9	630		126	YES	**
Monitoring Frequency	Please see Minimum Sampling and Reporting Frequency Requirements in the Derivation and Discussion Section below.						

* - Monitoring requirement only
** - Parameter was not established in previous state operating permit.
*** - # of colonies/100mL; the Monthly Average for *E. coli* is a geometric mean.
N/A – Not applicable
S – Same as previous operating permit

Basis for Limitations Codes:

- | | |
|--|------------------------------------|
| 1. State or Federal Regulation/Law | 6. Dissolved Oxygen Policy |
| 2. Water Quality Standard (includes RPA) | 7. Antidegradation Policy |
| 3. Water Quality Based Effluent Limits | 8. Water Quality Model |
| 4. Lagoon Policy | 9. Best Professional Judgment |
| 5. Ammonia Policy | 10. TMDL or Permit in lieu of TMDL |
| | 11. WET test 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 the permittee is unable to obtain effluent flow, then it is the responsibility of the permittee to inform the Department, which may require the submittal of an operating permit modification.
- **Biochemical Oxygen Demand (BOD₅):** Effluent limitations from the previous state operating permit have been reassessed and verified that they are still protective of the receiving stream’s Water Quality. Therefore, effluent limitations have been retained from previous state operating permit. [10 CSR 20-7.015(8)(A)3.B.]
- **Total Suspended Solids (TSS):** Effluent limitations from the previous state operating permit have been reassessed and verified that they are still protective of the receiving stream’s Water Quality. Therefore, effluent limitations have been retained from previous state operating permit. [10 CSR 20-7.015(8)(A)3.B.]
- **pH:** Effluent limitations have been modified from the previous state operating permit to reflect changes to the state regulations. Effluent limitation range is from 6.5 to 9.0 Standard pH Units (SU). pH is not to be averaged. [10 CSR 20-7.015(8)(A)2]
- **Temperature:** Monitoring requirement due to the toxicity of Ammonia varies by temperature. [10 CSR 20-7.031(4)(B)7]
- **Total Ammonia Nitrogen:** 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. [10 CSR 20-7.031(4)(B)7]
- **Escherichia coli (*E. coli*):** Monthly average of 126 colonies per 100 mL as a geometric mean and Daily Maximum of 630 colonies per 100 mL during the recreational season from April 1 through October 31, to protect the Whole Body Contact Recreation (A) designated use of the receiving stream. [10 CSR 20-7.031(4)(C)]
- **Minimum Sampling and Reporting Frequency Requirements:** Sampling and reporting frequency requirements have increased from the previous state operating permit in order to gain more data about the system and its efficacy.

PARAMETER	SAMPLING FREQUENCY	REPORTING FREQUENCY
Flow	once/quarter	once/quarter
Biochemical Oxygen Demand ₅	once/quarter	once/quarter
Total Suspended Solids	once/quarter	once/quarter
pH	once/quarter	once/quarter
Temperature	once/quarter	once/quarter
Ammonia as N	once/quarter	once/quarter
Escherichia coli (<i>E. coli</i>)	once/quarter	once/quarter

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.

Date of Statement of Basis: March 3, 2011

Date of Public Notice: April 15, 2011

Submitted by:

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Date

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Date