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-0055280
Owner:	City of Stockton
Address:	P.O. Box 590, Stockton, MO 65785
Continuing Authority:	Same as above
Address:	Same as above
Facility Name:	Stockton WWTP
Facility Address:	510 Lee Hopkins Drive, Stockton, MO 65785
Legal Description:	See Page 2
UTM Coordinates:	See Page 2
Receiving Stream:	See Page 2
First Classified Stream and ID:	See Page 2
USGS Basin & Sub-watershed No.:	See Page 2

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

FACILITY DESCRIPTION

See Page 2

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 621.250 RSMo, Section 640.013 RSMo and Section 644.051.6 of the Law.

July 1, 2019 Effective Date

Hund B. Anthath Edward B. Galbraith, Director, Division of Environmental Quality

Chris Wieberg, Director, Water Profection Program

March 31, 2024 Expiration Date

FACILITY DESCRIPTION (continued):

<u>Outfall #001</u> – POTW – SIC #4952

The use or operation of this facility shall be by or under the supervision of a Certified "B" Operator. Mechanical bar screen / manual bar screen / oxidation ditch / 2 final clarifiers / UV disinfection / 2 aerobic sludge digesters / sludge is land applied

Design population equivalent is 2,232. Design flow is 400,000 gallons per day. Actual flow is 266,000 gallons per day. Design sludge production is 230 dry tons/year.

Legal Description:	Sec. 9, T34N, R26W, Cedar County
UTM Coordinates:	X=430385, Y=4173657
Receiving Stream:	Tributary to Stockton Branch
First Classified Stream and ID:	8-20-13 MUDD V1.0 (C) (3960)
USGS Basin & Sub-watershed No.:	(10290106-1001)

Permitted Feature INF - Influent Monitoring Location - Headworks

Legal Description:	Sec. 9, T34N, R26W, Cedar County
UTM Coordinates:	X=430436, Y=4173489

Permitted Feature SM1 – Instream Monitoring

Instream monitoring location – Upstream – Upstream of Lee Hopkins Drive culvert over Stockton Branch and above the confluence of Stockton Branch and effluent drainage way. See Special Condition #16.

OUTFALL <u>#001</u>

TABLE A-1. INTERIM 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. In accordance with 10 CSR 20-7.031, the final effluent limitations in **Table A-3** must be achieved as soon as possible but no later than **July 1, 2020**. These interim effluent limitations in **Table A-1** are effective beginning **July 1, 2019** and remain in effect through **June 30, 2020** or as soon as possible. Such discharges shall be controlled, limited and monitored by the permittee as specified below:

EFFLUENT PARAMETER(S)	UNITS	INTERIM EFFLUEN LIMITATIONS			MONITORING R	EQUIREMENTS	
EFFLUENT PARAMETER(S)	UNIIS	DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE	
Limit Set: M	Limit Set: M						
Flow	MGD	*		*	once/week	24 hr. total	
Biochemical Oxygen Demand ₅	mg/L	41		21	once/week	composite**	
Total Suspended Solids	mg/L	41		21	once/week	composite**	
E. coli (Note 1)	#/100mL		1,030	206	once/week	grab	
Ammonia as N (Apr 1 – Sep 30) (Oct 1 – Mar 31)	mg/L	5.9 12.1		1.3 2.6	once/month	composite**	
Oil & Grease	mg/L	15		10	once/month	grab	
EFFLUENT PARAMETER(S)	UNITS	MINIMUM		MAXIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE	
pH – Units***	SU	6.5		9.0	once/week	grab	
EFFLUENT PARAMETER(S)	UNITS	DAILY MINIMUM		MONTHLY AVERAGE MINIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE	
Dissolved Oxygen	mg/L	5.1		5.1	once/week	grab	
EFFLUENT PARAMETER(S)			UNITS	MONTHLY AVERAGE MINIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE	
Biochemical Oxygen Demand ₅ – Percent Removal (Note 2)			%	85	once/month	calculated	
Total Suspended Solids – Percent Removal (Note 2)			%	85	once/month	calculated	
MONITORING REPORTS SHALL BE SUBN DISCHARGE OF FLOATING SOLIDS OR V					UST 28, 2019. THEF	E SHALL BE NO	

* Monitoring requirement only.

** A 24-hour composite sample is composed of 48 aliquots (subsamples) collected at 30 minute intervals by an automatic sampling device.

*** pH is measured in pH units and is not to be averaged.

Note 1 - Effluent 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. The Weekly Average for *E. coli* will be expressed as a geometric mean if more than one (1) sample is collected during a calendar week (Sunday through Saturday).

Note 2 – Influent sampling for BOD_5 and TSS is not required when the facility does not discharge effluent during the reporting period. Samples are to be collected prior to any treatment process. Percent Removal is calculated by the following formula: [(Average Influent –Average Effluent) / Average Influent] x 100% = Percent Removal. Influent and effluent samples are to be taken during the same month. The Average Influent and Average Effluent values are to be calculated by adding the respective values together and dividing by the number of samples taken during the month. Influent samples are to be collected as a 24-hour composite sample, composed of 48 aliquots (subsamples) collected at 30 minute intervals by an automatic sampling device.

OUTFALL <u>#001</u>

TABLE A-2. FINAL 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 in **Table A-2** shall become effective on **July 1, 2019** and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:

EFFLUENT PARAMETER(S)	LDUTC	FINAL EFF	LUENT LIN	IITATIONS	MONITORING REQUIREMENTS	
	UNITS	DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
Limit Set: Q						
Total Phosphorus	mg/L	*		*	once/quarter****	composite**
Total Kjeldahl Nitrogen	mg/L	*		*	once/quarter****	composite**
Nitrite + Nitrate	mg/L	*		*	once/quarter****	composite**

MONITORING REPORTS SHALL BE SUBMITTED **<u>QUARTERLY</u>**; THE FIRST REPORT IS DUE <u>OCTOBER 28, 2019</u>.

* Monitoring requirement only.

** A 24-hour composite sample is composed of 48 aliquots (subsamples) collected at 30 minute intervals by an automatic sampling device.

**** See table below for quarterly sampling requirements.

	Quarterly Minimum Sampling Requirements						
Quarter	Quarter Months Quarterly Effluent Parameters						
First	January, February, March	Sample at least once during any month of the quarter	April 28th				
Second	April, May, June	Sample at least once during any month of the quarter	July 28th				
Third	July, August, September	Sample at least once during any month of the quarter	October 28 th				
Fourth	October, November, December	Sample at least once during any month of the quarter	January 28 th				

OUTFALL <u>#001</u>

TABLE A-3. FINAL 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 in **Table A-3** shall become effective on <u>July 1, 2020</u> and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:

		FINAL EFF	LUENT LIN	IITATIONS	MONITORING REQUIREMENTS	
EFFLUENT PARAMETER(S)	UNITS	DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
Limit Set: M		1	1	i I		1
Flow	MGD	*		*	once/week	24 hr. total
Biochemical Oxygen Demand ₅	mg/L	41		21	once/week	composite**
Total Suspended Solids	mg/L	41		21	once/week	composite**
E. coli (Note 1)	#/100mL		1,030	206	once/week	grab
Ammonia as N (Apr 1 – Sep 30) (Oct 1 – Mar 31)	mg/L	5.9 12.1		1.2 2.3	once/month	composite**
Oil & Grease	mg/L	15		10	once/month	grab
EFFLUENT PARAMETER(S)	UNITS	MINIMUM		MAXIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
pH – Units***	SU	6.5		9.0	once/week	grab
EFFLUENT PARAMETER(S)	UNITS	DAILY MINIMUM		MONTHLY AVERAGE MINIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
Dissolved Oxygen	mg/L	5.1		5.1	once/week	grab
EFFLUENT PARAMETER(S)			UNITS	MONTHLY AVERAGE MINIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
Biochemical Oxygen Demand ₅ – Percent Removal (Note 2)			%	85	once/month	calculated
Total Suspended Solids – Percent Remova	l (Note 2)		%	85	once/month	calculated
MONITORING REPORTS SHALL BE SUBN					UST 28, 2020. THER	E SHALL BE NO

DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

* Monitoring requirement only.

** A 24-hour composite sample is composed of 48 aliquots (subsamples) collected at 30 minute intervals by an automatic sampling device.

*** pH is measured in pH units and is not to be averaged.

Note 1 - Effluent 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. The Weekly Average for *E. coli* will be expressed as a geometric mean if more than one (1) sample is collected during a calendar week (Sunday through Saturday).

Note 2 – Influent sampling for BOD_5 and TSS is not required when the facility does not discharge effluent during the reporting period. Samples are to be collected prior to any treatment process. Percent Removal is calculated by the following formula: [(Average Influent – Average Effluent) / Average Influent] x 100% = Percent Removal. Influent and effluent samples are to be taken during the same month. The Average Influent and Average Effluent values are to be calculated by adding the respective values together and dividing by the number of samples taken during the month. Influent samples are to be collected as a 24-hour composite sample, composed of 48 aliquots (subsamples) collected at 30 minute intervals by an automatic sampling device.

OUTFALL	
<u>#001</u>	

TABLE A-4. WHOLE EFFLUENT TOXICITY FINAL 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 in **Table A-4** shall become effective on **July 1, 2019** and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:

EFFLUENT PARAMETER(S) UN	LINUTO	FINAL EF	FLUENT LIM	ITATIONS	MONITORING REQUIREMENTS	
	UNITS	DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
Limit Set: WA						
Acute Whole Effluent Toxicity (Note 3)	TUa	*			once/permit cycle	composite**

MONITORING REPORTS SHALL BE SUBMITTED ONCE PER PERMIT CYCLE; THE FIRST REPORT IS DUE SEPTEMBER 28, 2023.

* Monitoring requirement only.

** A 24-hour composite sample is composed of 48 aliquots (subsamples) collected at 30 minute intervals by an automatic sampling device.

Note 3 – The Acute WET test shall be conducted once per permit cycle. See Special Condition #15 for additional requirements.

PERMITTED FEATURE <u>INF</u>	TABLE B-1. INFLUENT MONITORING REQUIREMENTS								
The monitoring requirements in Table B-1 shall become effective on July 1, 2019 and remain in effect until expiration of the permit. The influent wastewater shall be monitored by the permittee as specified below:									
				MC	NITORING RI	EQUIREMENTS			
PARAMETER(S)		UNITS	DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE		
Limit Set: IM						1			
Total Phosphorus		mg/L	*		*	once/quarter****	composite**		
Total Kjeldahl Nit	rogen	mg/L	*		*	once/quarter****	composite**		
Ammonia as N		mg/L	*		*	once/quarter****	composite**		
Nitrite + Nitrate		mg/L	*		*	once/quarter****	composite**		
MONITORING REL	PORTS SHALL BE SUBMIT	TED <u>QUA</u>	RTERLY; TH	HE FIRST REPO	ORT IS DUE <u>O</u>	CTOBER 28, 2019.			

* Monitoring requirement only.

** A 24-hour composite sample is composed of 48 aliquots (subsamples) collected at 30 minute intervals by an automatic sampling device.

**** See table below for quarterly sampling requirements.

	Quarterly Minimum Sampling Requirements							
Quarter	ter Months Influent Parameters							
First	January, February, March	Sample at least once during any month of the quarter	April 28th					
Second	April, May, June	Sample at least once during any month of the quarter	July 28th					
Third	July, August, September	Sample at least once during any month of the quarter	October 28th					
Fourth	October, November, December	Sample at least once during any month of the quarter	January 28 th					

TABLE C-1. INSTREAM MONITORING REQUIREMENTS

The monitoring requirements in **Table C-1** shall become effective on <u>July 1, 2019</u> and remain in effect until expiration of the permit. The stream shall be monitored by the permittee as specified below:

PARAMETER(S)		MONITORING REQUIREMENTS					
	UNITS -	DAILY MAXIMUM		MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE	
Limit Set: UM							
Ammonia as N	mg/L	*		*	once/quarter****	grab	
Total Phosphorus	mg/L	*		*	once/quarter****	grab	
Total Kjeldahl Nitrogen	mg/L	*		*	once/quarter****	grab	
Nitrite + Nitrate	mg/L	*		*	once/quarter****	grab	

MONITORING REPORTS SHALL BE SUBMITTED **<u>QUARTERLY</u>**; THE FIRST REPORT IS DUE <u>OCTOBER 28, 2019</u>.

* Monitoring requirement only.

**** See table below for quarterly sampling

	Quarterly Minimum Sampling Requirements								
Quarter	Months	Ammonia, TKN, Nitrite and Nitrate, & Total Phosphorus	Report is Due						
First	January, February, March	Sample at least once during any month of the quarter	April 28th						
Second	April, May, June	Sample at least once during any month of the quarter	July 28th						
Third	July, August, September	Sample at least once during any month of the quarter	October 28th						
Fourth	October, November, December	Sample at least once during any month of the quarter	January 28th						

D. SCHEDULE OF COMPLIANCE

<u>Ammonia</u>: The facility shall attain compliance with final effluent limitations for Ammonia as soon as possible or no later than **1 year** of the effective date of this permit.

E. STANDARD CONDITIONS

In addition to specified conditions stated herein, this permit is subject to the attached <u>Parts I, II, & III</u> standard conditions dated <u>August 1, 2014, May 1, 2013, and March 1, 2015, and hereby incorporated as though fully set forth herein.</u>

F. SPECIAL CONDITIONS

- 1. Electronic Discharge Monitoring Report (eDMR) Submission System.
 - (a) Discharge Monitoring Reporting Requirements. The permittee must electronically submit compliance monitoring data via the eDMR system. In regards to Standard Conditions Part I, Section B, #7, the eDMR system is currently the only Department approved reporting method for this permit.
 - (b) Programmatic Reporting Requirements. The following reports (if required by this permit) must be electronically submitted as an attachment to the eDMR system until such a time when the current or a new system is available to allow direct input of the data:
 - (1) Collection System Maintenance Annual Reports;
 - (2) Sludge/Biosolids Annual Reports; and
 - (3) Any additional report required by the permit excluding bypass reporting.

F. SPECIAL CONDITIONS (continued)

After such a system has been made available by the Department, required data shall be directly input into the system by the next report due date.

- (c) Other actions. The following shall be submitted electronically after such a system has been made available by the Department:
 - (1) Notices of Intent to discharge (NOIs);
 - (2) Notices of Termination (NOTs);
 - (3) Bypass reporting, See Special Condition #11 for 24-hr. bypass reporting requirements.
- (d) Electronic Submissions. To access the eDMR system, use the following link in your web
- browser: https://edmr.dnr.mo.gov/edmr/E2/Shared/Pages/Main/Login.aspx.
- (e) Waivers from Electronic Reporting. The permittee must electronically submit compliance monitoring data and reports unless a waiver is granted by the Department in compliance with 40 CFR Part 127. The permittee may obtain an electronic reporting waiver by first submitting an eDMR Waiver Request Form: <u>http://dnr.mo.gov/forms/780-2692-f.pdf</u>. The Department will either approve or deny this electronic reporting waiver request within 120 calendar days. Only permittees with an approved waiver request may submit monitoring data and reports on paper to the Department for the period that the approved electronic reporting waiver is effective.
- 2. The full implementation of this operating permit, which includes implementation of any applicable schedules of compliance, shall constitute compliance with all applicable federal and state statutes and regulations in accordance with §644.051.16, RSMo, and the Clean Water Act (CWA) section 402(k); however, this permit may be reopened and modified, or alternatively revoked and reissued:
 - (a) To 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 CWA, 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) To incorporate an approved pretreatment program or modification thereto pursuant to 40 CFR 403.8(c) or 40 CFR 403.18(e), respectively.
- 3. All outfalls must be clearly marked in the field. This does not include instream monitoring locations.
- 4. Report as no-discharge when a discharge does not occur during the report period. For instream samples, report as "no flow" if no stream flow occurs during the report period.
- 5. Reporting of Non-Detects:
 - (a) An analysis conducted by the permittee or their contracted laboratory shall be conducted in such a way that the precision and accuracy of the analyzed result can be enumerated.
 - (b) The permittee shall not report a sample result as "Non-Detect" without also reporting the detection limit of the test. Reporting as "Non Detect" without also including the detection limit will be considered failure to report, which is a violation of this permit.
 - (c) The permittee shall provide the "Non-Detect" sample result using the less than sign and the minimum detection limit (e.g. <10).
 - (d) Where the permit contains a Minimum Level (ML) and the permittee is granted authority in the permit to report zero in lieu of the < ML for a specified parameter (conventional, priority pollutants, metals, etc.), then zero (0) is to be reported for that parameter.
 - (e) See Standard Conditions Part I, Section A, #4 regarding proper detection limits used for sample analysis.
 - (f) When calculating monthly averages, one-half of the method detection limit (MDL) should be used instead of a zero. Where all data are below the MDL, the "<MDL" shall be reported as indicated in item (c).
- 6. It is a violation of the Missouri Clean Water Law to fail to pay fees associated with this permit (644.055 RSMo).
- 7. The facility must be sufficiently secured to restrict entry by children, livestock and unauthorized persons as well as to protect the facility from vandalism.
- 8. An all-weather access road shall be provided to the treatment facility.
- 9. The discharge from the wastewater treatment facility shall be conveyed to the receiving stream via a closed pipe or a paved or riprapped open channel. Sheet or meandering drainage is not acceptable. The outfall sewer shall be protected against the effects of floodwater, ice or other hazards as to reasonably insure its structural stability and freedom from stoppage. The outfall shall be maintained so that a sample of the effluent can be obtained at a point after the final treatment process and before the discharge mixes with the receiving waters.

F. SPECIAL CONDITIONS (continued)

10. The permittee shall develop and implement a program for maintenance and repair of the collection system. The recommended guidance is the US EPA's Guide for Evaluating Capacity, Management, Operation, And Maintenance (CMOM) Programs at Sanitary Sewer Collection Systems (Document number EPA 305-B-05-002) or the Departments' CMOM Model located at http://dnr.mo.gov/env/wpp/permits/docs/cmom-template.doc. For additional information regarding the Departments' CMOM Model, see the CMOM Plan Model Guidance document at http://dnr.mo.gov/pubs/pub2574.htm.

The permittee shall also submit a report via the Electronic Discharge Monitoring Report (eDMR) Submission System annually, by January 28th, for the previous calendar year. The report shall contain the following information:

- (a) A summary of the efforts to locate and eliminate sources of excessive infiltration and inflow into the collection system serving the facility for the previous year.
- (b) A summary of the general maintenance and repairs to the collection system serving the facility for the previous year.
- (c) A summary of any planned maintenance and repairs to the collection system serving the facility for the upcoming calendar year. This list shall include locations (GPS, 911 address, manhole number, etc.) and actions to be taken.
- 11. Bypasses are not authorized at this facility unless they meet the criteria in 40 CFR 122.41(m). If a bypass occurs, the permittee shall report in accordance to 40 CFR 122.41(m)(3), and with Standard Condition Part I, Section B, subsection 2. Bypasses are to be reported to the Southwest Regional Office during normal business hours or by using the online Sanitary Sewer Overflow/Facility Bypass Application located at: <u>https://dnr.mo.gov/mogem/</u> or the Environmental Emergency Response spill-line at 573-634-2436 outside of normal business hours. Once an electronic reporting system compliant with 40 CFR Part 127, the National Pollutant Discharge Elimination System (NPDES) Electronic Reporting Rule, is available all bypasses must be reported electronically via the new system. Blending, which is the practice of combining a partially-treated wastewater process stream with a fully-treated wastewater process stream prior to discharge, is not considered a form of bypass. If the permittee wishes to utilize blending, the permittee shall file an application to modify this permit to facilitate the inclusion of appropriate monitoring conditions.
- 12. The permittee shall comply with any applicable requirements listed in 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. To request a modification of the operational control testing requirements listed in 10 CSR 20-9, the permittee shall submit a permit modification application and fee to the Department requesting a deviation from the operational control monitoring requirements. If the request is approved, the Department will modify the permit.
- 13. This facility does not currently retain an operator with the correct level of certification required to operate the wastewater treatment facility. Missouri Clean Water Law and its implementing regulation 10 CSR 20-9.020(2)(F) allows the Department to develop a schedule of activities including the date by which compliance shall be obtained. The City of Stockton shall submit a written report to the Southwest Regional Office within **six (6) months** from the effective date of this operating permit. The report shall contain:
 - (a) The Certified Operators' name,
 - (b) The Certified Operators' certification number,
 - (c) A copy of the contract between the City and the Certified Operator; and/or
 - (d) A written correspondence from the City indicating that they have hired the services of the Certified Operator.
- 14. An Operation and Maintenance (O & M) manual shall be maintained by the permittee and made available to the operator. The O & M manual shall include key operating procedures and a brief summary of the operation of the facility.
- 15. Acute Whole Effluent Toxicity (WET) tests shall be conducted as follows:
 - (a) Freshwater Species and Test Methods: Species and short-term test methods for estimating the acute toxicity of NPDES effluents are found in the most recent edition of *Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms* (EPA/821/R-02/012; Table IA, 40 CFR Part 136). The permittee shall concurrently conduct 48-hour, static, non-renewal toxicity tests with the following species:
 - o The fathead minnow, Pimephales promelas (Acute Toxicity EPA Test Method 2000.0).
 - o The daphnid, Ceriodaphnia dubia (Acute Toxicity EPA Test Method 2002.0).
 - (b) Chemical and physical analysis of the upstream control sample and effluent sample shall occur immediately upon being received by the laboratory, prior to any manipulation of the effluent sample beyond preservation methods consistent with federal guidelines for WET testing that are required to stabilize the sample during shipping. Where upstream receiving water is not available or known to be toxic, other approved control water may be used.
 - (c) Test conditions must meet all test acceptability criteria required by the EPA Method used in the analysis.
 - (d) The Allowable Effluent Concentration (AEC) is 100%; the dilution series is: 6.25%, 12.5%, 25%, 50%, and 100%.

F. SPECIAL CONDITIONS (continued)

- (e) All chemical and physical analysis of the effluent sample performed in conjunction with the WET test shall be performed at the 100% effluent concentration.
- (f) The facility must submit a full laboratory report for all toxicity testing. The report must include a quantification of acute toxic units ($TU_a = 100/LC_{50}$) reported according to the test methods manual chapter on report preparation and test review. The Lethal Concentration 50 Percent (LC_{50}) is the effluent concentration that would cause death in 50 percent of the test organisms at a specific time.
- 16. Receiving Water Monitoring Conditions
 - (a) The upstream receiving water sample should be collected at a point upstream from any influence of the effluent, where the water is visibly flowing down stream. In the event that a safe, accessible location is not present at the location(s) listed, a suitable location can be negotiated with the Department. Samples should be taken at least four feet from the bank or from the middle of the stream (whichever is less) and 6-inches below the surface if possible.
 - (b) When conducting in-stream monitoring, the permittee shall record observations that include: the time of day, weather conditions, unusual stream characteristics (e.g., septic conditions, algae growth, etc.), the stream segment (e.g., riffle, pool or run) from where the sample was collected. These observations shall be submitted with the sample results.
 - (c) Samples shall not be collected from areas with especially turbulent flow, still water or from the stream bank, unless these conditions are representative of the stream reach or no other areas are available for sample collection. Sampling should not be made when significant precipitation has occurred recently. The sampling event should be terminated and rescheduled if any of the following conditions occur:
 - If turbidity in the stream increases notably; or
 - If rainfall over the past two weeks exceeds 2.5 inches or exceeds 1 inch in the last 24 hours
 - (d) Always use the correct sampling technique and handling procedure specified for the parameter of interest. Please refer to the latest edition of Standard Methods for the Examination of Water and Wastewater for further discussion of proper sampling techniques. All analyses must be conducted in accordance with an approved EPA method. Meters shall be calibrated immediately (within 1 hour) prior to the sampling event.
 - (e) Please contact the Department if you need additional instructions or assistance.

MISSOURI DEPARTMENT OF NATURAL RESOURCES FACT SHEET FOR THE PURPOSE OF RENEWAL OF MO-0055280 STOCKTON WWTP

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 stormwater 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 <u>five</u> (5) years unless otherwise specified.

As per [40 CFR Part 124.8(a)] and [10 CSR 20-6.020(1)(A)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 Minor.

Part I – Facility Information

Facility Type: POTW - SIC #4952

Facility Description: Mechanical bar screen / manual bar screen / oxidation ditch / 2 final clarifiers / UV disinfection / 2 aerobic sludge digesters / sludge is land applied

Have any changes occurred at this facility or in the receiving water body that affects effluent limit derivation? \boxtimes - No.

Application Date:	April 16, 2018
Expiration Date:	January 31, 2019

OUTFALL(S) TABLE:

OUTFALL	DESIGN FLOW (CFS)	TREATMENT LEVEL	EFFLUENT TYPE		
#001	0.62	Secondary	Domestic		

Facility Performance History:

The facility failed to comply with the final effluent limits for Dissolved Oxygen (DO) on the May 2014 Discharge Monitoring Report (DMR). The facility also failed to comply with the final effluent limits for pH on the June 2018 DMR. This facility was last inspected on June 7, 2017. The conditions of the facility at the time of inspection were found to be satisfactory.

Comments:

Changes in this permit include the revision of Ammonia limits, the addition of Total Phosphorus, Total Kjeldahl Nitrogen, and Nitrate + Nitrite monitoring for Outfall #001, the addition of Total Phosphorus, Total Kjeldahl Nitrogen, Ammonia, and Nitrate + Nitrite monitoring for the influent and instream monitoring locations, and changing Total Suspended Solids and Biochemical Oxygen Demand back to having a daily maximum and monthly average limits per the 2005 Permit in lieu of TMDL. See Part VI of the Fact Sheet for further information regarding the addition and modification of effluent parameters. Special conditions were updated to include the addition of inflow and infiltration reporting requirements, reporting of Non-detects, bypass reporting requirements, and the addition of instream monitoring requirements.

Part II – Operator Certification Requirements

 \boxtimes - This facility is required to have a certified operator.

As per [10 CSR 20-6.010(8) Terms and Conditions of a Permit], the permittee shall operate and maintain facilities to comply with the Missouri Clean Water Law and applicable permit conditions and regulations. Operators at regulated wastewater treatment facilities shall be certified in accordance with [10 CSR 20-9.020(2)] and any other applicable state law or regulation. As per [10 CSR 20-9.020(2)(A)], requirements for operation by certified personnel shall apply to all wastewater treatment systems, if applicable, as listed below:

Owned or operated by or for a	
🖂 - Municipalities	- State agency
🗌 - County	- Public Water Supply Districts
- Public Sewer District	Private Sewer Company regulated by the Public Service Commission

Each of the above entities are only applicable if they have a Population Equivalent greater than two hundred (200).

This facility currently requires a chief operator with a "C" Certification Level. Please see **Appendix - Classification Worksheet**. Modifications made to the wastewater treatment facility may cause the classification to be modified.

Operator's Name:	Raymond L Heryford
Certification Number:	7758
Certification Level:	WW-C

The listing of the operator above only signifies that staff drafting this operating permit have reviewed appropriate Department records and determined that the name listed on the operating permit application has the correct and applicable Certification Level.

 \square -This facility does not currently retain a chief operator with the correct level of certification required to operate the wastewater treatment facility. Missouri Clean Water Law and its implementing regulation 10 CSR 20-9.020(2)(F) allows the Department to develop a schedule of activities including the date by which compliance shall be obtained. This schedule of activities has been established in this operating permit in Special Condition #13.

Part III- Operational Control Testing Requirements

Missouri Clean Water Commission regulation 10 CSR 20-9.010 requires certain publically owned treatment works and privately owned facilities regulated by the Public Service Commission to conduct internal operational control monitoring to further ensure proper operation of the facility and to be a safeguard or early warning for potential plant upsets that could affect effluent quality. This requirement is only applicable if the publically owned treatment works and privately owned facilities regulated by the Public Service Commission has a Population Equivalent greater than two hundred (200).

10 CSR 20-9.010(3) allows the Department to modify the monitoring frequency required in the rule based upon the Department' judgement of monitoring needs for process control at the specified facility

 \boxtimes - As per [10 CSR 20-9.010(4))], the facility is required to conduct operational monitoring.

☑ - The facility is a mechanical plant and is required to conduct operational control monitoring as follows:

Operational Monitoring Parameter	Frequency
Precipitation	Daily (M-F)
Flow – Influent or Effluent	Daily (M-F)
pH – Influent	Daily (M-F)
Temperature (Aeration basin)	Daily (M-F)
TSS – Influent	Weekly
TSS – Mixed Liquor	Weekly
Settleability – Mixed Liquor	Daily (M-F)
Dissolved Oxygen – Mixed Liquor	Daily (M-F)
Dissolved Oxygen – Aerobic Digester	Daily (M-F)

Part IV – Receiving Stream Information

RECEIVING STREAM(S) TABLE: OUTFALL #001

WATER-BODY NAME	CLASS	WBID	DESIGNATED USES*	12-DIGIT HUC	DISTANCE TO CLASSIFIED SEGMENT (MI)	
Tributary to Stockton Branch	NA NA		General Criteria, Acute Water Quality Standards	10290106-	0.07	
8-20-13 MUDD V1.0 (Stockton Branch)	С	3960	AQL, WBC-B, SCR, HHP, IRR, LWW	1001	0.07	

*As per 10 CSR 20-7.031 Missouri Water Quality Standards, the Department defines the Clean Water Commission's water quality objectives in terms of "water uses to be maintained and the criteria to protect those uses." The receiving stream and 1st classified receiving stream's beneficial water uses to be maintained are in the receiving stream table in accordance with [10 CSR 20-7.031(1)(C)].

Uses which may be found in the receiving streams table, above:

10 CSR 20-7.031(1)(C)1.:

AQL = Protection of aquatic life (Current narrative use(s) are defined to ensure the protection and propagation of fish shellfish and wildlife, which is further subcategorized as: WWH = Warm Water Habitat; CDF = Cold-water fishery (Current narrative use is cold-water habitat.); CLF = Cool-water fishery (Current narrative use is cool-water habitat.); EAH = Ephemeral Aquatic Habitat; MAH = Modified Aquatic Habitat; LAH = Limited Aquatic Habitat. This permit uses AQL effluent limitations in 10 CSR 20-7.031 Table A for all habitat designations unless otherwise specified.)
10 CSR 20-7.031(1)(C)2.: Recreation in and on the water

WBC = Whole Body Contact recreation where the entire body is capable of being submerged;

WBC-A = Whole body contact recreation that supports swimming uses and has public access;

WBC-B = Whole body contact recreation that supports swimming;

SCR = Secondary Contact Recreation (like fishing, wading, and boating).

10 CSR 20-7.031(1)(C)3. to 7.:

HHP (formerly HHF) = Human Health Protection as it relates to the consumption of fish;

IRR = Irrigation for use on crops utilized for human or livestock consumption;

LWW = Livestock and wildlife watering (Current narrative use is defined as LWP = Livestock and Wildlife Protection); **DWS** = Drinking Water Supply;

IND = Industrial water supply

10 CSR 20-7.031(1)(C)8-11.: Wetlands (10 CSR 20-7.031 Table A currently does not have corresponding habitat use criteria for these defined uses)

WSA = Storm- and flood-water storage and attenuation; WHP = Habitat for resident and migratory wildlife species;

WRC = Recreational, cultural, educational, scientific, and natural aesthetic values and uses; WHC = Hydrologic cycle maintenance.

10 CSR 20-7.031(6): **GRW** = Groundwater

RECEIVING STREAM(S) LOW-FLOW VALUES:

RECEIVING STREAM (C, E, P, P1)	LOW-FLOW VALUES (CFS)*					
$\mathbf{RECEIVING STREAM}(\mathbf{C},\mathbf{E},\mathbf{F},\mathbf{F})$	1Q10	7Q10	30Q10			
Tributary to Stockton Branch	NA	NA	NA			

MIXING CONSIDERATIONS

Mixing Zone: Not Allowed [10 CSR 20-7.031(5)(A)4.B.(I)(a)]. Zone of Initial Dilution: Not Allowed [10 CSR 20-7.031(5)(A)4.B.(I)(b)].

RECEIVING STREAM MONITORING REQUIREMENTS:

Permitted Feature SM1. (Upstream)

Facilities with a design flow greater than 100,000 gallons per day but less than 1 million gallons per day are required to sample their effluent quarterly for Total Phosphorus and Total Kjeldahl Nitrogen Nitrite + Nitrate and ammonia per 10 CSR 20-7.015(9)(D)8.A. Upstream monitoring for these parameters is necessary to determine background concentrations in order to complete calculations related to nutrient loading to the receiving stream.

<u>Receiving Water Body's Water Quality</u>: No stream survey has been conducted for this facility. Stockton Branch was originally listed as impaired in 1998 for Volatile Suspended Solids. A Permit in Lieu of TMDL was issued March 10, 2005 via permit modification to the permit originally issued March 22, 2002.

Part V – Rationale and Derivation of Effluent Limitations & Permit Conditions

ALTERNATIVE EVALUATIONS FOR NEW FACILITIES:

As per [10 CSR 20-7.015(4)(A)], discharges to losing streams shall be permitted only after other alternatives including land application, discharges to a gaining stream and connection to a regional wastewater treatment facility have been evaluated and determined to be unacceptable for environmental and/or economic reasons.

 \square - The facility does not discharge to a Losing Stream as defined by [10 CSR 20-2.010(40)] & [10 CSR 20-7.031(1)(O)], or is an existing facility.

ANTI-BACKSLIDING:

A provision in the Federal Regulations [CWA §303(d)(4); CWA §402(o); 40 CFR Part 122.44(l)] that requires a reissued permit to be as stringent as the previous permit with some exceptions.

 \square - Limitations in this operating permit for the reissuance of this permit conform to the anti-backsliding provisions of Section 402(o) of the Clean Water Act, and 40 CFR Part 122.44.

 \boxtimes - Information is available which was not available at the time of permit issuance (other than revised regulations, guidance, or test methods) and which would have justified the application of a less stringent effluent limitation at the time of permit issuance.

- Effluent limitations were re-calculated for Ammonia based on new information derived from discharge monitoring reports and on the current Missouri Water Quality Standards for Ammonia. The newly established limitations are still protective of water quality.
- WET testing requirements were changed from pass/fail to monitoring only for toxic units. This change reflects modifications to Missouri's Effluent Regulation found at 10 CSR 20-7.015(9). Federal regulation 40 CFR 122.44(d)(1)(ii) requires the Department to establish effluent limitations to control all parameters which have the reasonable potential to cause or contribute to an excursion above any state water quality standard, including state narrative criteria. The previous permit imposed a pass/fail limitation without collecting sufficient numerical data to conduct an analytical reasonable potential analysis. The permit writer has made a reasonable potential determination which concluded the facility does not have reasonable potential at this time but monitoring is required. Implementation of the toxic unit monitoring requirement will allow the Department to effect numeric criteria in accordance with water quality standards established under §303 of the CWA.

 \square - The Department determines that technical mistakes or mistaken interpretations of law were made in issuing the permit under section 402(a)(1)(b).

• <u>General Criteria</u>. The previous permit contained a special condition which described a specific set of prohibitions related to general criteria found in 10 CSR 20-7.031(4). In order to comply with 40 CFR 122.44(d)(1), the permit writer has conducted reasonable potential determinations for each general criterion and established numeric effluent limitations where reasonable potential exists. While the removal of the previous permit special condition creates the appearance of backsliding, since this permit establishes numeric limitations where reasonable potential to cause or contribute to an excursion of the general criteria exists the permit maintains sufficient effluent limitations and monitoring requirements in order to protect water quality, this permit is equally protective as compared to the previous permit. Therefore, given this new information, and the fact that the previous permit special condition was not consistent with 40 CFR 122.44(d)(1), an error occurred in the establishment of the general criteria as a special condition of the previous permit. Please see Part VI – Effluent Limits Determination for more information regarding the reasonable potential determinations for each general criterion related to this facility.

ANTIDEGRADATION:

In accordance with Missouri's Water Quality Standard [10 CSR 20-7.031(3)], for domestic wastewater discharge with new, altered, or expanding discharges, the Department is to document by means of Antidegradation Review that the use of a water body's available assimilative capacity is justified. In accordance with Missouri's water quality regulations for antidegradation [10 CSR 20-7.031(3)], degradation may be justified by documenting the socio-economic importance of a discharge after determining the necessity of the discharge. Facilities must submit the antidegradation review request to the Department prior to establishing, altering, or expanding discharges. See http://dnr.mo.gov/env/wpp/permits/antideg-implementation.htm

 \square - No degradation proposed and no further review necessary. Facility did not apply for authorization to increase pollutant loading or to add additional pollutants to their discharge.

AREA-WIDE WASTE TREATMENT MANAGEMENT & CONTINUING AUTHORITY:

As per [10 CSR 20-6.010(2)(C)], ... An applicant may utilize a lower preference continuing authority by submitting, as part of the application, when a higher level authority is available, must submit information to the Department for review and approval, provided it does not conflict with any area-wide management plan approved under section 208 of the Federal Clean Water Act or any other regional sewage service and treatment plan approved for higher preference authority by the Department.

BIOSOLIDS & SEWAGE SLUDGE:

Biosolids are solid materials resulting from domestic wastewater treatment that meet federal and state criteria for beneficial uses (i.e. fertilizer). 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

☑ - Permittee is authorized to land apply biosolids in accordance with Standard Conditions III.

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.

 \boxtimes - The facility is not currently under Water Protection Program enforcement action.

ELECTRONIC DISCHARGE MONITORING REPORT (EDMR) SUBMISSION SYSTEM:

The U.S. Environmental Protection Agency (EPA) promulgated a final rule on October 22, 2015, to modernize Clean Water Act reporting for municipalities, industries, and other facilities by converting to an electronic data reporting system. This final rule requires regulated entities and state and federal regulators to use information technology to electronically report data required by the National Pollutant Discharge Elimination System (NPDES) permit program instead of filing paper reports. To comply with the federal rule, the Department is requiring all permittees to begin submitting discharge monitoring data and reports online. In an effort to aid facilities in the reporting of applicable information electronically, the Department has created several new forms including operational control monitoring forms and an I&I location and reduction form. These forms are for optional use and can be found on the Department's website at the following locations:

Operational Monitoring Lagoon: <u>http://dnr.mo.gov/forms/780-2801-f.pdf</u> Operational Monitoring Mechanical: <u>http://dnr.mo.gov/forms/780-2800-f.pdf</u> I&I Report: <u>http://dnr.mo.gov/forms/780-2690-f.pdf</u>

Per 40 CFR 127.15 and 127.24, permitted facilities may request a temporary waiver for up to 5 years or a permanent waiver from electronic reporting from the Department. To obtain an electronic reporting waiver, a permittee must first submit an eDMR Waiver Request Form: <u>http://dnr.mo.gov/forms/780-2692-f.pdf</u>. A request must be made for each facility. If more than one facility is owned or operated by a single entity, then the entity must submit a separate request for each facility based on its specific circumstances. An approved waiver is non-transferable. The Department must review and notify the facility within 120 calendar days of receipt if the waiver request has been approved or rejected [40 CFR 124.27(a)]. During the Department review period as well as after a waiver is granted, the facility must continue submitting a hard-copy of any reports required by their permit. The Department will enter data submitted in hard-copy from those facilities allowed to do so and electronically submit the data to the EPA on behalf of the facility.

 \boxtimes - The permittee/facility is currently using the eDMR data reporting system.

NUMERIC LAKE NUTRIENT CRITERIA

 \square - This facility discharges into a lake watershed where numeric lake nutrient criteria are applicable, per 10 CSR 20-7.031(5)(N), and has a design flow greater than 0.1 MGD. See **Part VI. Effluent Limits Determination**, below for more information.

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)].

☑ - The permittee, at this time, is not required to have a Pretreatment Program or does not have an approved pretreatment program.

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REASONABLE POTENTIAL ANALYSIS (RPA):

Federal regulation [40 CFR Part 122.44(d)(1)(i)] requires effluent limitations for all pollutants that are or may be discharged at a level that will cause or have the reasonable potential to cause or contribute to an in-stream excursion above narrative or numeric water quality standard.

In accordance with [40 CFR Part 122.44(d)(1)(iii)] if the permit writer determines that any given pollutant has the reasonable potential to cause, or contribute to an in-stream excursion above the WQS, the permit must contain effluent limits for that pollutant.

□ - An RPA was conducted on appropriate parameters. Please see APPENDIX – RPA RESULTS.

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.

 \boxtimes - Secondary Treatment is 85% removal [40 CFR Part 133.102(a)(3) & (b)(3)].

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

Sanitary Sewer Overflows (SSOs) are defined as untreated sewage releases and are considered bypassing under state regulation [10 CSR 20-2.010(12)] and should not be confused with the federal definition of bypass. SSOs result from a variety of causes including blockages, line breaks, and sewer defects that can either allow wastewater to backup within the collection system during dry weather conditions or allow excess stormwater and groundwater to enter and overload the collection system during wet weather conditions. SSOs can also result from lapses in sewer system operation and maintenance, inadequate sewer design and construction, power failures, and vandalism. SSOs include overflows out of manholes, cleanouts, broken pipes, and other into waters of the state and onto city streets, sidewalks, and other terrestrial locations.

Inflow and Infiltration (I&I) is defined as unwanted intrusion of stormwater or groundwater into a collection system. This can occur from points of direct connection such as sump pumps, roof drain downspouts, foundation drains, and storm drain cross-connections or through cracks, holes, joint failures, faulty line connections, damaged manholes, and other openings in the collection system itself. I&I results from a variety of causes including line breaks, improperly sealed connections, cracks caused by soil erosion/settling, penetration of vegetative roots, and other sewer defects. In addition, excess stormwater and groundwater entering the collection system from line breaks and sewer defects have the potential to negatively impact the treatment facility.

Missouri RSMo §644.026.1.(13) mandates that the Department issue permits for discharges of water contaminants into the waters of this state, and also for the operation of sewer systems. Such permit conditions shall ensure compliance with all requirements as established by sections 644.006 to 644.141. Standard Conditions Part I, referenced in the permit, contains provisions requiring proper operation and maintenance of all facilities and systems of treatment and control. Missouri RSMo §644.026.1.(15) instructs the Department to require proper maintenance and operation of treatment facilities and sewer systems and proper disposal of residual waste from all such facilities. To ensure that public health and the environment are protected, any noncompliance which may endanger public health or the environment must be reported to the Department within 24 hours of the time the permittee becomes aware of the noncompliance. Standard Conditions Part I, referenced in the permit, contains the reporting requirements for the permittee when bypasses and upsets occur. The permit also contains requirements for permittees to develop and implement a program for maintenance and repair of the collection system. The permit requires that the permittee submit an annual report to the Department for the previous calendar year that contains a summary of efforts taken by the permittee to locate and eliminate sources of excess I & I, a summary of general maintenance and repairs to the collection system, and a summary of any planned maintenance and repairs to the collection system.

☑ - At this time, the Department recommends the US EPA's Guide for Evaluating Capacity, Management, Operation and Maintenance (CMOM) Programs at Sanitary Sewer Collection Systems (Document # EPA 305-B-05-002) or the Departments' CMOM Model located at <u>http://dnr.mo.gov/env/wpp/permits/docs/cmom-template.doc</u>. For additional information regarding the Departments' CMOM Model, see the CMOM Plan Model Guidance document at <u>http://dnr.mo.gov/pubs/pub2574.htm</u>. The CMOM identifies some of the criteria used to evaluate a collection system's management, operation, and maintenance and was intended for use by the EPA, state, regulated community, and/or third party entities. The CMOM is applicable to small, medium, and large systems; both public and privately owned; and both regional and satellite collection systems. The CMOM does not substitute for the Clean Water Act, the Missouri Clean Water Law, and both federal and state regulations, as it is not a regulation.

SCHEDULE OF COMPLIANCE (SOC):

Per 644.051.4 RSMo, a permit may be issued with a Schedule of Compliance (SOC) to provide time for a facility to come into compliance with new state or federal effluent regulations, water quality standards, or other requirements. Such a schedule is not allowed if the facility is already in compliance with the new requirement, or if prohibited by other statute or regulation. A SOC includes 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. *See also* Section

502(17) of the Clean Water Act, and 40 CFR §122.2. For new effluent limitations, the permit may include interim monitoring for the specific parameter to demonstrate the facility is not already in compliance with the new requirement. Per 40 CFR § 122.47(a)(1), 10 CSR 20-7.031(11), and 10 CSR 20-7.015(9), compliance must occur as soon as possible. If the permit provides a schedule for meeting new water quality based effluent limits, a SOC must include an enforceable, final effluent limitation in the permit even if the SOC extends beyond the life of the permit.

A SOC is not allowed:

- For effluent limitations based on technology-based standards established in accordance with federal requirements, if the deadline for compliance established in federal regulations has passed. 40 CFR § 125.3.
- For a newly constructed facility in most cases. Newly constructed facilities must meet applicable effluent limitations when discharge begins, because the facility has installed the appropriate control technology as specified in a permit or antidegradation review. A SOC is allowed for a new water quality based effluent limit that was not included in a previously public noticed permit or antidegradation review, which may occur if a regulation changes during construction.
- To develop a TMDL, UAA, or other study that may result in site-specific criteria or alternative effluent limits. A facility is not prohibited from conducting these activities, but a SOC may not be granted for conducting these activities.

In order to provide guidance to Permit Writers in developing SOCs, and attain a greater level of consistency, on April 9, 2015 the Department issued an updated policy on development of SOCs. This policy provides guidance to Permit Writers on the standard time frames for schedules for common activities, and guidance on factors that may modify the length of the schedule such as a Cost Analysis for Compliance.

 \square - The time given for effluent limitations of this permit listed under Interim Effluent Limitation and Final Effluent Limitations were established in accordance with [10 CSR 20-7.031(10)]. The facility has been given a schedule of compliance to meet final effluent limits for Ammonia. The one year schedule of compliance allowed for this facility should provide adequate time to evaluate operations and implement any necessary changes to meet effluent limits.

SEWER EXTENSION AUTHORITY SUPERVISED PROGRAM:

In accordance with [10 CSR 20-6.010(6)(A)], the Department may grant approval of a permittee's Sewer Extension Authority Supervised Program. These approved permittees regulate and approve construction of sanitary sewers and pump stations, which are tributary to this wastewater treatment facility. The permittee shall act as the continuing authority for the operation, maintenance, and modernization of the constructed collection system. See http://dnr.mo.gov/env/wpp/permits/sewer-extension.htm.

☑ - The permittee does not have a Department approved Sewer Extension Authority Supervised Program.

STORMWATER POLLUTION PREVENTION PLAN (SWPPP):

In accordance with 40 CFR 122.44(k) *Best Management Practices (BMPs)* to control or abate the discharge of pollutants when: (1) Authorized under section 304(e) of the Clean Water Act (CWA) for the control of toxic pollutants and hazardous substances from ancillary industrial activities: (2) Authorized under section 402(p) of the CWA for the control of stormwater discharges; (3) Numeric effluent limitations are infeasible; or (4) the practices are reasonably necessary to achieve effluent limitations and standards or to carry out the purposes and intent of the CWA.

 \boxtimes - At this time, the permittee is 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.

 \boxtimes - This operating permit is not drafted under premises of a petition for variance.

WASTELOAD ALLOCATIONS (WLA) FOR LIMITS:

As per [10 CSR 20-2.010(86)], the amount of pollutant each discharger is allowed by the Department to release into a given stream after the Department has determined total amount of pollutant that may be discharged into that stream without endangering its water quality.

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

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

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).

Number of Samples "n":

Additionally, in accordance with the TSD for water quality-based permitting, effluent quality is determined by the underlying distribution of daily values, which is determined by the Long Term Average (LTA) associated with a particular Wasteload Allocation (WLA) and by the Coefficient of Variation (CV) of the effluent concentrations. Increasing or decreasing the monitoring frequency does not affect this underlying distribution or treatment performance, which should be, at a minimum, be targeted to comply with the values dictated by the WLA. Therefore, it is recommended that the actual planned frequency of monitoring normally be used to determine the value of "n" for calculating the AML. However, in situations where monitoring frequency is once per month or less, a higher value for "n" must be assumed for AML derivation purposes. Thus, the statistical procedure being employed using an assumed number of samples is "n = 4" at a minimum. For Total Ammonia as Nitrogen, "n = 30" is used.

WLA MODELING:

There are two general types of effluent limitations, technology-based effluent limits (TBELs) and water quality based effluent limits (WQBELs). If TBELs do not provide adequate protection for the receiving waters, then WQBEL must be used.

⊠ - A WLA study was either not submitted or determined not applicable by Department staff.

WATER QUALITY STANDARDS:

Per [10 CSR 20-7.031(4)], 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:

 \boxtimes - The permittee is required to conduct WET test for this facility.

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.

Under the federal Clean Water Act (CWA) §101(a)(3), requiring WET testing is reasonably appropriate for site-specific Missouri State Operating Permits for discharges to waters of the state issued under the National Pollutant Discharge Elimination System (NPDES). WET testing is also required by 40 CFR 122.44(d)(1). WET testing ensures that the provisions in the 10 CSR 20-6.010(8)(A) and the Water Quality Standards 10 CSR 20-7.031(4)(D),(F),(G),(J)2.A & B are being met. Under [10 CSR 20-6.010(8)(B)], the Department may require other terms and conditions that it deems necessary to assure compliance with the Clean Water Act and related regulations of the Missouri Clean Water Commission. In addition the following MCWL apply: §§§644.051.3 requires the Department to set permit conditions that comply with the MCWL and CWA; 644.051.4 specifically references toxicity as

an item we must consider in writing permits (along with water quality-based effluent limits, pretreatment, etc...); and 644.051.5 is the basic authority to require testing conditions. WET test will be required by facilities meeting the following criteria:

- Facility is a designated Major.
- Facility continuously or routinely exceeds its design flow.
- Facility that exceeds its design population equivalent (PE) for BOD₅ whether or not its design flow is being exceeded.
- Facility (whether primarily domestic or industrial) that alters its production process throughout the year.
- Facility handles large quantities of toxic substances, or substances that are toxic in large amounts.
- Facility has Water Quality-based Effluent Limitations for toxic substances (other than NH₃)
- Facility is a municipality with a Design Flow \geq 22,500 gpd.
- Other please justify.

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 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 20-7.015(9)(G) states a bypass means the intentional diversion of waste streams from any portion of a treatment facility, except in the case of blending, 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 devices designed for peak wet weather flows.

□ - Bypasses occur or have occurred at 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

 \square - This facility discharges to a stream with an EPA approved Permit in Lieu of TMDL. This facility discharges to Stockton Branch, which was originally listed as impaired in 1998 for Volatile Suspended Solids. A Permit in Lieu of TMDL was issued March 10, 2005 via permit modification to the permit originally issued March 22, 2002 to address the impairment.

Part VI – Effluent Limits Determination

CATEGORIES 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)]

Lakes or Reservoirs [10 CSR 20-7.015(3)]

Losing Streams [10 CSR 20-7.015(4)]

Metropolitan No-Discharge Streams [10 CSR 20-7.015(5)]

OUTFALL #001 - MAIN FACILITY OUTFALL

Special Streams [10 CSR 20-7.015(6)] Subsurface Waters [10 CSR 20-7.015(7)] All Other Waters [10 CSR 20-7.015(8)]

Effluent limitations derived and established in the below 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 terms and conditions, including effluent limitations, of this operating permit.

 \boxtimes

EFFLUENT LIMITATIONS TABLE:

PARAMETER	Unit	Basis for Limits	Daily Maximum	Weekly Average	Monthly Average	Previous Permit Limit	Sampling Frequency	Reporting Frequency	Sample Type ****
Flow	MGD	1	*		*	*/*	1/week	monthly	Т
BOD ₅	mg/L	8	41		21	41/21	1/week	monthly	С
TSS	mg/L	8	41		21	41/21	1/week	monthly	С
Escherichia coli**	#/100mL	1, 3		1,030	206	1,030/ 206	1/week	monthly	G
Ammonia as N (Interim) (Apr 1 –Sep 30)	mg/L	2, 3	5.9		1.3	5.7/1.3	1/month	monthly	С
Ammonia as N (Interim) (Oct 1 – Mar 31)	mg/L	2, 3	12.1		2.6	12.1/2.6	1/month	monthly	С
Ammonia as N (Final) (Apr 1 –Sep 30)	mg/L	2, 3	5.9		1.2	5.9/1.2	1/month	monthly	С
Ammonia as N (Interim) (Oct 1 – Mar 31)	mg/L	2, 3	12.1		2.3	12.1/2.3	1/month	monthly	С
Oil & Grease	mg/L	1, 3	15		10	15/10	1/month	monthly	G
Total Phosphorus	mg/L	1	*		*	***	1/quarter	quarterly	G
Total Kjeldahl Nitrogen	mg/L	1	*		*	***	1/quarter	quarterly	G
Nitrite+Nitrate	mg/L	1	*		*	***	1/quarter	quarterly	G
Acute Whole Effluent Toxicity	TUa	1, 9	*			Pass/ Fail	1/year	annually	С
PARAMETER	Unit	Basis for Limits	Minimum		Maximum	Previous Permit Limit	Sampling Frequency	Reporting Frequency	Sample Type
pH	SU	1	6.5		9.0	6.5-9.0	1/week	monthly	G
PARAMETER	Unit	Basis for Limits	Daily Minimum		Monthly Avg Min	Previous Permit Limit	Sampling Frequency	Reporting Frequency	Sample Type
Dissolved Oxygen (DO)	mg/L	8	5.1		5.1	5.1/5.1	1/week	monthly	G
BOD ₅ Percent Removal	%	1			85	85	1/month	monthly	М
TSS Percent Removal	%	1			85	85	1/month	monthly	М

* - Monitoring requirement only.

** - #/100mL; the Monthly Average for E. coli is a geometric mean.

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

Basis for Limitations Codes:

- 1. State or Federal Regulation/Law
- 2. Water Quality Standard (includes RPA)
- Water Quality Standard (includes RPA)
 Water Quality Based Effluent Limits

4. Antidegradation Review

- Antidegradation Policy
 Water Quality Model
- 7. Best Professional Judgment
- 8. TMDL or Permit in lieu of TMDL
- **** C = 24-hour composite

G = Grab

T = 24-hr. total E = 24-hr. estimate

- M = Measured/calculated
- 9. WET Test Policy
- 10. Multiple Discharger Variance
- 11. Nutrient Criteria Implementation Plan

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.
- <u>Biochemical Oxygen Demand (BOD₅)</u>. Operating permit retains 41 mg/L as a Daily Maximum and 21 mg/L as a Monthly Average. Please see APPENDIX PERMIT IN LIEU OF TMDL (MARCH 10, 2005)
- <u>Total Suspended Solids (TSS)</u>. Operating permit retains 41 mg/L as a Daily Maximum and 21 mg/L as a Monthly Average. Please see APPENDIX – PERMIT IN LIEU OF TMDL (MARCH 10, 2005)
- <u>Escherichia coli (E. coli)</u>. Monthly average of 206 per 100 mL as a geometric mean and Weekly Average of 1,030 per 100 mL as a geometric mean during the recreational season (April 1 October 31), for discharges within two miles upstream of segments or lakes with Whole Body Contact Recreation (B) designated use of the receiving stream, as per 10 CSR 20-7.015(9)(B). An effluent limit for both monthly average and weekly average is required by 40 CFR 122.45(d). The Geometric Mean is calculated by multiplying all of the data points and then taking the nth root of this product, where n = # of samples collected. For example: Five *E. coli* samples were collected with results of 1, 4, 6, 10, and 5 (#/100mL). Geometric Mean = 5th root of (1)(4)(6)(10)(5) = 5th root of 1,200 = 4.1 #/100mL.
- <u>Total Ammonia Nitrogen</u>. Early Life Stages Present Total Ammonia Nitrogen criteria apply [10 CSR 20-7.031(5)(B)7.C. & Table B3]. Background total ammonia nitrogen = 0.01 mg/L. No mixing considerations allowed; therefore, WLA = appropriate criterion.

Season	Temp (°C)	pH (SU)	Total Ammonia Nitrogen CCC (mg/L)	Total Ammonia Nitrogen CMC (mg/L)		
Summer	26	7.8	1.5	12.1		
Winter	6	7.8	3.1	12.1		

Summer: April 1 – September 30

Chronic WLA: Ce = ((0.62 + 0)1.5 - (0 * 0.01) / 0.62)Ce = 1.5Acute WLA: Ce = ((0.62 + 0)12.1 - (0 * 0.62) / 0.62)Ce = 12.1LTAc = 1.5 mg/L (0.515) = 0.77 mg/L[CV = 1.71, 99th Percentile, 30 day avg.] LTAa = 12.1 mg/L (0.13) = 1.58 mg/L[CV = 1.71, 99th Percentile] [CV = 1.71, 99th Percentile] MDL = 0.773 mg/L (7.67) = 5.9 mg/LAML = 0.773 mg/L (1.577) = 1.2 mg/L[CV = 1.71, 95th Percentile, n=30]Winter: October 1 – March 31 Chronic WLA: Ce = ((0.62 + 0)3.1 - (0 * 0.01) / 0.62)Ce = 3.1Acute WLA: Ce = ((0.62 + 0)12.1 - (0 * 0.62) / 0.62)Ce = 12.1LTAc = 3.1 mg/L (0.428) = 1.33 mg/L[CV = 1.71, 99th Percentile, 30 day avg.] LTAa = 12.1 mg/L (0.13) = 1.58 mg/L[CV = 1.71, 99th Percentile] [CV = 1.71, 99th Percentile] MDL = 1.3 mg/L (7.67) = 12.1 mg/L[CV = 1.71, 95th Percentile, n=30]AML = 1.3 mg/L (1.577) = 2.3 mg/L

- <u>Oil & Grease</u>. Conventional pollutant, effluent limitation for protection of aquatic life; 10 mg/L monthly average, 15 mg/L daily maximum.
- <u>Total Phosphorus and Total Nitrogen (Speciated)</u>. Effluent monitoring for Total Phosphorus, Total Kjeldahl Nitrogen, and Nitrite + Nitrate required per 10 CSR 20-7.015(9)(D)8.

- <u>**pH**</u>. 6.5-9.0 SU. pH limitations of 6.0-9.0 SU [10 CSR 20-7.015] are not protective of the in-stream Water Quality Standard, which states that water contaminants shall not cause pH to be outside the range of 6.5-9.0 SU.
- <u>Dissolved Oxygen</u>. The March 10, 2005 operating permit in lieu of TMDL established that the dissolved oxygen for Outfall #001 shall be greater than 5.1 mg/L. Therefore, this operating permit contains a Dissolved Oxygen effluent limitation of ≥ 5.1 mg/L as a Daily Minimum and Monthly Average Minimum.
- <u>Biochemical Oxygen Demand (BOD₅) Percent Removal</u>. In accordance with 40 CFR Part 133, 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. This facility is required to meet 85% removal efficiency for BOD₅.
- <u>Total Suspended Solids (TSS) Percent Removal</u>. In accordance with 40 CFR Part 133, 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. This facility is required to meet 85% removal efficiency for TSS.

Whole Effluent Toxicity

• <u>Acute Whole Effluent Toxicity</u>. Monitoring requirement only. Monitoring is required to determine if reasonable potential exists for this facility's discharge to exceed water quality standards.

Acute and/or Chronic Allowable Effluent Concentrations (AECs) for facilities that discharge to Waters of the State lacking designated uses, Class C, Class P (with default Mixing Considerations), or Lakes [10 CSR 20-7.031(5)(A)4.B.(IV)(b)] are 100%, 50%, 25%, 12.5%, & 6.25%.

Sampling Frequency Justification:

Sampling and Reporting Frequency for all parameters but Oil & Grease and Ammonia were retained from previous permit. Oil & Grease and Ammonia were changed to monthly Weekly sampling is required for *E. coli*, per 10 CSR 20-7.015(9)(D)6.A.

WET Test Sampling Frequency Justification. WET Testing schedules and intervals are established in accordance with the Department's Permit Manual; Section 5.2 *Effluent Limits / WET Testing for Compliance Bio-monitoring*. It is recommended that WET testing be conducted during the period of lowest stream flow.

Acute Whole Effluent Toxicity

-No less than ONCE/PERMIT CYCLE:

 $\boxed{}$ -Municipality with a design flow \ge 22,500 gpd, but less than 1.0 MGD.

Sampling Type Justification:

As per 10 CSR 20-7.015, samples collected for mechanical plants shall be a 24 hour composite sample. Grab samples, however, must be collected for pH, *E. coli*, Oil & Grease, and Dissolved Oxygen, VI in accordance with recommended analytical methods. For further information on sampling and testing methods please review 10 CSR 20-7.015(9)(D) 2.

PERMITTED FEATURE INF - INFLUENT MONITORING

The monitoring requirements established in the below Monitoring Requirements 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 terms and conditions, including the monitoring requirements listed in this table.

INFLUENT MONITORING TABLE:

PARAMETER	Unit	Basis for Limits	Daily Maximum	Weekly Average	Monthly Average	Previous Permit Limit	Sampling Frequency	Reporting Frequency	Sample Type ****
Ammonia as N	mg/L	1	*		*	***	1/month	monthly	С
Total Phosphorus	mg/L	1	*		*	***	1/month	monthly	С
Total Kjeldahl Nitrogen	mg/L	1	*		*	***	1/quarter	quarterly	С
Nitrite + Nitrate	mg/L	1	*		*	***	1/quarter	quarterly	С
* - Monitoring requirement only.						**** - G	= Grab		

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

Basis for Limitations Codes:

Antidegradation Review

State or Federal Regulation/Law 1. 2. Water Quality Standard (includes RPA)

Water Quality Based Effluent Limits

- Antidegradation Policy 5.
- Water Quality Model 6.
- 7. Best Professional Judgment
 - 8. TMDL or Permit in lieu of TMDL
- 9. WET Test Policy
- 10. Multiple Discharger Variance

C = Composite

11. Nutrient Criteria Implementation Plan

Influent Parameters

3.

4.

Total Phosphorus, Total Kjeldahl Nitrogen, Nitrite + Nitrate, and Ammonia. Influent monitoring for Total Phosphorus, • Total Kjeldahl Nitrogen, Nitrite + Nitrate, and Ammonia required per 10 CSR 20-7.015(9)(D)8.

Sampling Frequency Justification: Nutrient influent monitoring frequencies established per 10 CSR 20-7.015(9)(D)8.

Sampling Type Justification: Sample types for Total Phosphorus and Nitrogen parameters align with other influent parameters. Samples should be analyzed as soon as possible after collection and/or properly preserved according to method requirements.

PERMITTED FEATURE SM1 – INSTREAM MONITORING (UPSTREAM)

The monitoring requirements established in the below Monitoring Requirements 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 terms and conditions, including the monitoring requirements listed in this table.

MONITORING REQUIREMENTS TABLE:

PARAMETER	Unit	Basis for Limits	Daily Maximum	Weekly Average	Monthly Average	Previous Permit Limit	Sampling Frequency	Reporting Frequency	Sample Type ****
Total Kjeldahl Nitrogen	mg/L	7	*		*	***	1/quarter	quarterly	G
Nitrite+Nitrate	mg/L	7	*		*	***	1/quarter	quarterly	G
Ammonia	mg/L	7	*		*	***	1/quarter	quarterly	G
Total Phosphorus	mg/L	7	*		*	***	1/quarter	quarterly	G

* - Monitoring requirement only.

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

Basis for Limitations Codes:

- State or Federal Regulation/Law 1.
- 2. Water Quality Standard (includes RPA)
- Water Quality Based Effluent Limits 3.
- 4. Antidegradation Review
- 6. Water Quality Model 7. Best Professional Judgment
- TMDL or Permit in lieu of TMDL 8.

Antidegradation Policy

- 9 WET Test Policy
- 10. Multiple Discharger Variance
- 11. Nutrient Criteria Implementation Plan

PERMITTED FEATURE SM1 – DERIVATION AND DISCUSSION OF MONITORING REOUIREMENTS:

5

Total Phosphorus, Total Kjeldahl Nitrogen, Nitrite + Nitrate, and Ammonia. Facilities with a design flow greater than . 100,000 gallons per day but less than one million gallons per day are required to sample their effluent quarterly for Total Phosphorus and Total Kieldahl Nitrogen, Nitrite + Nitrate and Ammonia per 10 CSR 20-7.015(9)(D)8. Upstream monitoring for these parameters is necessary to determine background stream concentrations in order to complete calculations that determine instream nutrient loading.

Sampling Frequency Justification: The sampling and reporting frequency for Total Phosphorus and Nitrogen parameters has been established to match the required sampling frequency of these parameters in the effluent.

Sampling Type Justification: For the purposes of instream data collection, and as the upstream water quality should be consistent over a 24 hour period, grab samples are sufficient. Samples should be analyzed as soon as possible after collection and/or properly preserved according to method requirements.

OUTFALL #001 – GENERAL CRITERIA CONSIDERATIONS:

In accordance with 40 CFR 122.44(d)(1), effluent limitations shall be placed into the permit for those pollutants which have been determined to cause, have the reasonable potential to cause, or contribute to an excursion above any State water quality standard, including State narrative criteria for water quality. The rule further states that pollutants which have been determined to cause, have the reasonable potential to cause, or contribute to an excursion above a narrative criterion within an applicable State water quality standard, the permit shall contain a numeric effluent limitation to protect that narrative criterion. In order to comply with this regulation, the permit writer will complete reasonable potential determinations on whether the discharge will violate any of the general criteria listed in 10 CSR 20-7.031(4). These specific requirements are listed below followed by derivation and discussion (the lettering matches that of the rule itself, under 10 CSR 20-7.031(4)). It should also be noted that Section 644.076.1, RSMo as well as Section D - Administrative Requirements of Standard Conditions Part I of this permit states that it shall be unlawful for any person to cause or permit any discharge of water contaminants from any water contaminant or point source located in Missouri that is in violation of sections 644.006 to 644.141 of the Missouri Clean Water Law or any standard, rule or regulation promulgated by the commission.

(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. The discharge from this facility is made up of treated domestic wastewater. Based upon review of the recent Report of Compliance Inspection for the inspection conducted on June 7, 2017, no evidence of an excursion of this criterion has been observed by the Department in the past and the facility has not disclosed any other information related to the characteristics of the discharge on their permit application which has the potential to cause or contribute to an excursion of this narrative criterion. Additionally, this facility utilizes secondary treatment technology and is currently in compliance with effluent limitations that are more stringent than secondary treatment technology based effluent limits established in this permit and there has been no indication to the Department that the stream has had issues maintaining beneficial uses as a result of this discharge. Based on the information reviewed during the drafting of this permit, these final effluent

**** - C = 24-hour composite

G = Grab M = Measured /calculated limitations appear to have protected against the excursion of this criterion in the past. Therefore, the discharge does not have the reasonable potential to cause or contribute to an excursion of this criterion.

- (B) <u>Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses</u>. Please see (A) above as justification is the same.
- (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. Please see (A) above as justification is the same.
- (D) Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life. This permit contains final effluent limitations which are protective of both acute and chronic toxicity for various pollutants that are either expected to be discharged by domestic wastewater facilities or that were disclosed by this facility on the application for permit coverage. Based on the information reviewed during the drafting of this permit, it has been determined if the facility meets final effluent limitations established in this permit, there is no reasonable potential for the discharge to cause an excursion of this criterion.
- (E) <u>There shall be no significant human health hazard from incidental contact with the water</u>. Please see (D) above as justification is the same.
- (F) There shall be no acute toxicity to livestock or wildlife watering. Please see (D) above as justification is the same.
- (G) <u>Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community</u>. Please see (A) above as justification is the same.
- (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. The discharge from this facility is made up of treated domestic wastewater. No evidence of an excursion of this criterion has been observed by the Department in the past and the facility has not disclosed any other information related to the characteristics of the discharge on their permit application which has the potential to cause or contribute to an excursion of this narrative criterion. Additionally, any solid wastes received or produced at this facility are wholly contained in appropriate storage facilities, are not discharged, and are disposed of offsite. This discharge is subject to Standard Conditions Part III, which contains requirements for the management and disposal of sludge to prevent its discharge. Therefore, this discharge does not have reasonable potential to cause or contribute to an excursion of this criterion.

Part VII – Cost Analysis for Compliance

Pursuant to Section 644.145, RSMo, when issuing permits under this chapter that incorporate a new requirement for discharges from publicly owned combined or separate sanitary or storm sewer systems or publicly owned treatment works, or when enforcing provisions of this chapter or the Federal Water Pollution Control Act, 33 U.S.C. 1251 et seq., pertaining to any portion of a publicly owned combined or separate sanitary or storm sewer system or [publicly owned] treatment works, the Department of Natural Resources shall make a "finding of affordability" on the costs to be incurred and the impact of any rate changes on ratepayers upon which to base such permits and decisions, to the extent allowable under this chapter and the Federal Water Pollution Control Act. This process is completed through a cost analysis for compliance. Permits that do not include new requirements may be deemed affordable.

 \square - The Department is required to determine "findings of affordability" because the permit applies to a combined or separate sanitary sewer system for a publically-owned treatment works.

Cost Analysis for Compliance - The Department has made a reasonable search for empirical data indicating the permit is affordable. The search consisted of a review of Department records that might contain economic data on the community, a review of information provided by the applicant as part of the application, and public comments received in response to public notices of this draft permit. If the empirical cost data was used by the permit writer, this data may consist of median household income, any other ongoing projects that the Department has knowledge, and other demographic financial information that the community provided as contemplated by Section 644. 145.3.

The following table summarizes the results of the cost analysis. See **Appendix – Cost Analysis for Compliance** for detailed information.

New Permit Requirement	s							
Outfall #001 - Quarterly Total Phosphorus, Total Kjeldahl Nitrogen, and Nitrate + Nitrite sampling								
Permitted Features INF and SM1 - Quarterly Total Phosphorus, Ammonia Total Kjeldahl Nitrogen, and								
Nitrate + Nitrite sampling								
Estimated Annual Cost	Annual Median Household Income (MHI)	Estimated Monthly User Rate	User Rate as a Percent of MHI					
\$1,324	\$33,038	\$51.88	1.88%					

Part VIII – 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.

WATER QUALITY STANDARD REVISION:

In accordance with section 644.058, RSMo, the Department is required to utilize an evaluation of the environmental and economic impacts of modifications to water quality standards of twenty-five percent or more when making individual site-specific permit decisions.

 \square - This operating permit does not contain requirements for a water quality standard that has changed twenty-five percent or more since the previous operating permit.

PERMIT SYNCHRONIZATION:

The Department of Natural Resources is currently undergoing a synchronization process for operating permits. Permits are normally issued on a five-year term, but to achieve synchronization many permits will need to be issued for less than the full five years allowed by regulation. The intent is that all permits within a watershed will move through the Watershed Based Management (WBM) cycle together will all expire in the same fiscal year. This will allow further streamlining by placing multiple permits within a smaller geographic area on public notice simultaneously, thereby reducing repeated administrative efforts. This will also allow the Department to explore a watershed based permitting effort at some point in the future. Renewal applications must continue to be submitted within 180 days of expiration, however, in instances where effluent data from the previous renewal is less than 4 years old, that data may be re-submitted to meet the requirements of the renewal application. If the permit provides a schedule of compliance for meeting new water quality based effluent limits beyond the expiration date of the permit, the time remaining in the schedule of compliance will be allotted in the renewed permit. With permit synchronization, this permit will expire in the 1st Quarter of calendar year 2024.

PUBLIC NOTICE:

The Department shall give public notice that a draft permit has been prepared and its issuance is pending. Additionally, public notice will be issued if a public hearing is to be held because of a significant degree of interest in and water quality concerns related to a draft permit. No public notice is required when a request for a permit modification or termination is denied; however, the requester and permittee must be notified of the denial in writing. The Department must issue public notice of a pending operating permit or of a new or reissued statewide general permit. The public comment period is the length of time not less than 30 days following the date of the public notice which interested persons may submit written comments about the proposed permit. For persons wanting to submit comments regarding this proposed operating permit, then please refer to the Public Notice page located at the front of this draft operating permit. The Public Notice page gives direction on how and where to submit appropriate comments.

☑ - The Public Notice period for this operating permit was from April 12, 2019 to May 13, 2019. No responses received.

DATE OF FACT SHEET: MAY 29, 2019

COMPLETED BY:

BRANT FARRIS, ENVIRONMENTAL SPECIALIST III MISSOURI DEPARTMENT OF NATURAL RESOURCES WATER PROTECTION PROGRAM OPERATING PERMITS SECTION - DOMESTIC WASTEWATER UNIT (660) 385-8019 brant.farris@dnr.mo.gov

Appendices

APPENDIX - CLASSIFICATION WORKSHEET:

		~ .
Item	Points Possible	Points Assigned
Maximum Population Equivalent (P.E.) served , peak day	1 pt./10,000 PE or major fraction thereof. (Max 10 pts.)	
Design Flow (avg. day) or peak month's flow (avg. day) whichever is larger	1 pt. / MGD or major fraction thereof. (Max 10 pts.)	
Effluent Discharge		
Missouri or Mississippi River	0	
All other stream discharges except to losing streams and stream reaches supporting whole body contact recreation	1	
Discharge to lake or reservoir outside of designated whole body contact recreational area	2	
Discharge to losing stream, or stream, lake or reservoir area supporting whole body contact recreation	3	3
Direct reuse or recycle of effluent	6	
Land Application/Irrig	ation	
Drip Irrigation	3	
Land application/irrigation	5	
Overland flow	4	
Variation in Raw Wastes (higher	est level only)	
Variations do not exceed those normally or typically expected	0	
Reoccurring deviations or excessive variations of 100 to 200 percent in strength and/or flow	2	
Reoccurring deviations or excessive variations of more than 200 percent in strength and/or flow	4	4
Department-approved pretreatment program	6	
Preliminary Treatme	nt	
STEP systems (operated by the permittee)	3	
Screening and/or comminution	3	3
Grit removal	3	3
Plant pumping of main flow	3	
Flow equalization	5	
Primary Treatment	t	
Primary clarifiers	5	
Chemical addition (except chlorine, enzymes)	4	
Secondary Treatment	nt	
Trickling filter and other fixed film media with or without secondary clarifiers	10	
Activated sludge (including aeration, oxidation ditches, sequencing batch reactors, membrane bioreactors, and contact stabilization)	15	15
Stabilization ponds without aeration	5	
Aerated lagoon	8	
Advanced Lagoon Treatment – Aerobic cells, anaerobic cells, covers, or fixed film	10	
Biological, physical, or chemical	12	
Carbon regeneration	4	
Total from page ONE (1)		28

Item	POINTS POSSIBLE	POINTS Assigned	
Solids Handling			
Sludge Holding	5	5	
Anaerobic digestion	10		
Aerobic digestion	6	6	
Evaporative sludge drying	2		
Mechanical dewatering	8		
Solids reduction (incineration, wet oxidation)	12		
Land application	6	6	
Disinfection			
Chlorination or comparable	5		
On-site generation of disinfectant (except UV light)	5		
Dechlorination	2		
UV light	4	4	
Required Laboratory Control Performed by Plant	Personnel (highest level only)		
Lab work done outside the plant	0		
Push – button or visual methods for simple test such as pH, settleable solids	3		
Additional procedures such as DO, COD, BOD, titrations, solids, volatile content	5	5	
More advanced determinations, such as BOD seeding procedures, fecal coliform, nutrients, total oils, phenols, etc.	7		
Highly sophisticated instrumentation, such as atomic absorption and gas chromatograph	10		
Total from page TWO (2)		26	
Total from page ONE (1)		28	
Grand Total		54	

APPENDIX - CLASSIFICATION WORKSHFET (CONTINUED).

□ - A: 71 points and greater
 □ - B: 51 points - 70 points
 □ - C: 26 points - 50 points
 □ - D: 0 points - 25 points

APPENDIX – RPA RESULTS:

Parameter	CMC*	RWC Acute*	CCC*	RWC Chronic*	n**	Range max/min	CV***	MF	RP Yes/No
Total Ammonia as Nitrogen (Summer) mg/L	12.1	14.13	1.5	14.13	55.00	4.8/0.1	1.71	2.94	YES
Total Ammonia as Nitrogen (Winter) mg/L	12.1	59.35	3.1	59.35	57.00	17.5/0.05	2.28	3.39	YES

N/A – Not Applicable

* - Units are (μ g/L) unless otherwise noted.

** - If the number of samples is 10 or greater, then the CV value must be used in the WQBEL for the applicable constituent. If the number of samples is < 10, then the default CV value must be used in the WQBEL for the applicable constituent.

*** - Coefficient of Variation (CV) is calculated by dividing the Standard Deviation of the sample set by the Mean of the same sample set.

RWC – Receiving Water Concentration. It is the concentration of a toxicant or the parameter toxicity in the receiving water after mixing (if applicable).

n - Is the number of samples.

MF – Multiplying Factor. 99% Confidence Level and 99% Probability Basis.

RP – Reasonable Potential. It is where an effluent is projected or calculated to cause an excursion above a water quality standard based on a number of factors including, as a minimum, the four factors listed in 40 CFR 122.44(d)(1)(ii).

Reasonable Potential Analysis is conducted as per (TSD, EPA/505/2-90-001, Section 3.3.2). A more detailed version including calculations of this RPA is available upon request.

APPENDIX - PERMIT IN LIEU OF TMDL (MARCH 10, 2005)

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.

Owner:

Address:

Address:

Facility Name:

Facility Address:

Legal Description:

Receiving Stream:

Continuing Authority:

MO-0055280

City of Stockton P.O. Box 590, Stockton, MO 65785

Same as above Same as above

Stockton WWTF Leo Hopkins Drive, Stockton, MO 65785

S¹/₄, NW¹/₄, Sec. 09, T34N, R26W, Cedar County Stockton Branch (C) 303(d) Stockton Branch (C) (01361) 303(d) (10290106-130002)

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 - POTW - SIC #4952

First Classified Stream and ID:

USGS Basin & Sub-watershed No.:

Two cell lagoon with post aeration / sludge retained in the lagoon. Design population equivalent is 2,600. Design flow is 260,000 gallons per day. Design sludge production is 39 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.

March 22, 2002 March 10, 2005 Effective Date (Revised)

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

March 21, 2007 Explication Date

R. Bruce Martin, Director, Southwest Regional Office

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

PAGE NUMBER 2 of 7 PERMIT NUMBER MO-0055280

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 until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:

OUTFALL NUMBER AND EFFLUENT		INTERIM EF	FLUENT LIN	MITATIONS	MONITORING REQUIREMENTS		
PARAMETER(S)	UNITS	DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE	
Outfall #001							
Flow	MGD	+		•	once/month***	24 hr. estimate	
Biochemical Oxygen Demands**	mg/L]	45	30	once/month***	grab	
Total Suspended Solids**	mg/L		80	60	once/month***	grab	
pH – Units	SU	****		••••	once/month***	grab	
Total Phosphorus as P	mg/L	•		•	once/month***	grab	
MONITORING REPORTS SHALL BE SUB DISCHARGE OF FLOATING SOLIDS OR					THERÊ	SHALL BE NO	

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

- * Monitoring requirement only.
- ** This facility is required to provide a 30-day average percent removal of at least 65%.
- *** Reports shall be submitted by the 28th day of the month following the reporting period, e.g. Reporting period is the month of March (samples collected monthly or weekly), report due by April 28th.
- *** pH is measured in pH units and is not to be averaged. The pH is to be maintained at or above 6.0 pH units.

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) 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 areawide wastewater treatment system within 90 days of notice of its availability.

Page 3 of 7 Permit No. MO-0055280

C. SPECIAL CONDITIONS (continued)

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:"
 - 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 report period.

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:
 - 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.

Page 4 of 7 Permit No. MO-0055280

C. SPECIAL CONDITIONS (continued)

- 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. 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.
- The permittee shall submit a report semi-annually with the Discharge Monitoring Reports (on January 28 and July 28) which
 addresses measures taken to locate and eliminate sources of inflow and infiltration into the City's collection system.

D. SCHEDULE OF COMPLIANCE

- By June 1, 2005 ~90 days from modified permit issuance submit an engineering report to the department comply with the final effluent limitations as list in Part A of this permit to the Missouri Department of Natural Resources, 2040 West Woodland, Springfield, Missouri, 65807.
- 2. Within nine (9) months of modified permit issuance submit an update report, focusing on progress related to financing
- 3. Within fourteen (14) months of modified permit issuance submit a completed application for construction permit, application fee, one copy each of an engineering report, plans and specifications prepared by a professional engineer registered in the State of Missouri, and lagoon closure plans to the Missouri Department of Natural Resources, 2040 West Woodland, Springfield, Missouri, 65807, for providing wastewater treatment facility improvements to comply with the final effluent limitations as listed in Part A of this permit, designed in accordance with Missouri Clean Water Law Regulation 10 CSR 20 Chapter 8.
- Within fifteen (15) calendar days of receipt of any request for additional information or changes in the engineering report, plans
 or specifications, respond and if necessary submit engineering modifications to the department.
- Within 23 months of the modified permit issuance the city will begin construction of the wastewater treatment facility improvements.
- 6. Within 35 months or the modified permit issuance, the city will complete construction and close the lagoons.
- 7. Within 36 months of the modified permit issuance, submit a Statement of Work Completed form, signed, sealed, and dated by a professional engineer registered in the State of Missouri certifying that the project has been completed substantially in accordance with the approved plans and specifications. In addition to the Statement of Work Completed, submit an application for a Missouri State Operating Permit modification complete with the appropriate modification fee and documentation that the lagoons have been properly closed to the Missouri Department of Natural Resources, 2040 West Woodland, Springfield, Missouri, 65807.
- 8. The limits that will be imposed on June 1, 2008 are included in Attachment A on page 5 of 7.

If you have questions you may contact the Missouri Department of Natural Resources, Southwest Regional Office by calling 417-891-4300 or by mail at 2040 West Woodland, Springfield, Missouri, 65807. Attachment A. The limits that will go into effect on June 1, 2008.

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	ND MONE	TODDIC DEOUT		(PAGE NUMBER	x of x	
A. EFFLUENT LIMITATIONS A	IND MONE	I OKING REQUI	KEMEN I S	(continued)	PERMIT NUMB	ER MO-	
The permittee is authorized to discharge limitations shall become effective June monitored by the permittee as specified	1, 2008 and re						
OUTFALL NUMBER AND	UNITS	FINAL EF	FLUENT LIN		MONITORING REQUIREMENT		
EFFLUENT PARAMETER(S)	UNITS	DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE	
Outfall #001							
Flow	MGD	•		•	once/week***	24 hr. total	
Biochemical Oxygen Demand ₅ **	mg/L	41		21	once/week***	24 hr. comp	
Total Suspended Solids**	mg/L	41		21	once/week***	24 hr. com	
pH – Units	SU	****		****	once/week***	grab	
Fecal Coliform (Note 1)	#/100 ml	1000		400	once/week***	grab	
Total Residual Chlorine as Cl ₂)	mg/L	0.016 (Note 2) (0.13 ML)		0.0082 (Note 2) (0.13 ML)	once/week***	grab	
Total Phosphorus as P	mg/L	•		•	once/week***	grab	
Ammonia as N (May 1 – October 31) (November 1 – April 30)	mg/L	1.6 2.7		0.77 1.4	once/week***	grab	
Aluminum	mg/L	0.75		0.37	once/week***	grab	
Iron	mg/L	1.6		0.82	once/week***	grab	
Dissolved Oxygen (Note 3)	mg/L	+		•	once/week***	grab	
MONITORING REPORTS SHALL BE DISCHARGE OF FLOATING SOLID	SUBMITTE				28, 2008. THERE SH		

Page 6 of 7 Permit No. MO-0055280

Attachment A (con't).

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued) PAGE NUMBER x of x PERMIT NUMBER MO-0055280

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 June 1, 2008 date and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:

	FINAL EFF	LUENT LIM	TATIONS	MONITORING REQUIREMENTS		
UNITS	DAILY MAXIMUM	WEEKLŸ AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE	
MGD	*		•	once/month***	24 hr. estimate	
mg/L		45	45	once/month***	grab	
mg/L		45	45	once/month***	grab	
SU	****		****	once/month***	grab	
inches	•		•	once/month***	grab	
	mg/L mg/L SU	UNITS DAILY MAXIMUM MGD * mg/L mg/L SU ****	UNITS DAILY WEEKLY MAXIMUM AVERAGE MGD * mg/L 45 mg/L 45 SU ****	MGD * * * mg/L 45 45 SU **** ****	UNITS DAILY MAXIMUM WEEKLY AVERAGE MONTHLY AVERAGE MEASUREMENT FREQUENCY MGD * * once/month*** mg/L 45 45 once/month*** SU **** once/month***	

B. STANDARD CONDITIONS

IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED Parts I. II & 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.
- ** This facility is required to provide a 30-day average percent removal of at least 85%.
- *** Reports shall be submitted by the 28th day of the month following the reporting period, e.g. Reporting period is the month of March (samples collected monthly or weekly), report due by April 28th.
- **** pH is measured in pH units and is not to be averaged. The pH is limited to the range of 6.0-9.0 pH units.
- ***** The total precipitation for the event sampled shall be reported.
- Note 1 Final limitations and monitoring requirements for Fecal Coliform are applicable only during the recreational season from April 1 through October 31.
- Note 2 This permit contains a Total Residual Chlorine (TRC) limit.
 - (a) This effluent limit is below the minimum quantification level (ML) of the most common and practical EPA approved CLTRC methods. The department has determined the current acceptable ML for total residual chlorine to be 0.13 mg/L when using the DPD Colorimetric Method #4500 CL G. from Standard Methods for the Examination of Waters and Wastewater. The permittee will conduct analyses in accordance with this method, or equivalent, and report actual analytical values. Measured values greater than or equal to the minimum quantification level of 0.13 mg/L will be considered violations of the permit and values less than the minimum quantification level of 0.13 mg/L will be considered to be in compliance with the permit limitation. The minimum quantification level does not authorize the discharge of chlorine in excess of the effluent limits stated in the permit.

Page 7 of 7 Permit No. MO-0055280

Attachment A (con't).

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A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

- Note 2 Total Residual Chlorine (TRC) (continued)
 - (b) Disinfection is required year-round unless the permit specifically states that "Final limitations and monitoring requirements for Fecal Coliform are applicable only during the recreational season from April 1 through October 31." If your permit does not require disinfection during the non-recreational months, <u>do not chlorinate in those months</u>.
 - (c) Do not chemically dechlorinate if it is not needed to meet the limits in your permit.
 - (d) If no chlorine was used in a given sampling period, an actual analysis is not necessary. Simply report as "0 mg/L" TRC.

Note 3 The Dissolved Oxygen for Outfall #001 shall be 5.1 mg/L or higher.

APPENDIX – COST ANALYSIS FOR COMPLIANCE:

Missouri Department of Natural Resources Water Protection Program Cost Analysis for Compliance (In accordance with RSMo 644.145)

Stockton WWTP, Permit Renewal City of Stockton Missouri State Operating Permit #MO-0055280

Section 644.145 RSMo requires the Department of Natural Resources (Department) to make a "finding of affordability" when "issuing permits under" or "enforcing provisions of" state or federal clean water laws "pertaining to any portion of a combined or separate sanitary sewer system for publicly-owned treatment works." This cost analysis does not dictate how the permittee will comply with new permit requirements.

New Permit Requirements

The permit requires compliance with new monitoring requirements. Outfall #001 includes new quarterly sampling for Total Phosphorus, Total Kjeldahl Nitrogen, and Nitrate + Nitrite. Permitted Features INF and SM1 includes new quarterly sampling for Total Phosphorus, Ammonia Total Kjeldahl Nitrogen, and Nitrate + Nitrite.

Connections

The number of connections was reported by the permittee on the Financial Questionnaire.

Connection Type Number	
Residential	700
Commercial & Industrial	161
Total	861

Data Collection for this Analysis

This cost analysis is based on data available to the Department as provided by the permittee and data obtained from readily available sources. For the most accurate analysis, it is essential that the permittee provides the Department with current information about the City's financial and socioeconomic situation. The financial questionnaire available to permittees on the Department's website (<u>http://dnr.mo.gov/forms/780-2511-f.pdf</u>) is a required attachment to the permit renewal application. If the financial questionnaire is not submitted with the renewal application, the Department sends a request to complete the form with the welcome correspondence. If certain data was not provided by the permittee to the Department and the data is not obtainable through readily available sources, this analysis will state that the information is "unknown".

Eight Criteria of 644.145 RSMo

The Department must consider the eight (8) criteria presented in subsection 644.145 RSMo to evaluate the cost associated with new permit requirements.

(1) A community's financial capability and ability to raise or secure necessary funding;

Criterion 1 Table. Current Financial Information for the City of Stockton	
Current Monthly User Rates per 5,000 gallons*	\$51.75
Median Household Income (MHI) ¹	\$33,038
Current Annual Operating Costs (excludes depreciation)	\$242,374.60

*User Rates were reported by the permittee on the Financial Questionnaire.

(2) Affordability of pollution control options for the individuals or households at or below the median household income level of the community;

Criterion 2A Table. Estimated Cos	t Breakdown of New Perm	it Requirements	
New Requirement	Frequency Estimated Cost Esti		Estimated Annual Cost
Total Phosphorus – Influent	Quarterly	\$24	\$96
Total Kjeldahl Nitrogen - Influent	Quarterly	\$33	\$132
Nitrate + Nitrite - Influent	Quarterly	\$40	\$160
Ammonia - Influent	Quarterly	\$20	\$80
Total Phosphorus – Effluent	Quarterly	\$24	\$96
Total Kjeldahl Nitrogen - Effluent	Quarterly	\$33	\$132
Nitrate + Nitrite - Effluent	Quarterly	\$40	\$160
Total Phosphorus – Instream	Quarterly	\$24	\$96
Total Kjeldahl Nitrogen - Instream	Quarterly	\$33	\$132
Nitrate + Nitrite - Instream	Quarterly	\$40	\$160
Ammonia - Instream	Quarterly	\$20	\$80
Total Estimated Annual Cost of New	Permit Requirements		\$1,324

The following tables outline the estimated costs of the new permit requirements:

Crit	erion 2B Table. Estimated Costs for New Permit Requirements	
(1)	Estimated Annual Cost	\$1,324
(2)	Estimated Monthly User Cost for New Requirements ²	\$0.13
	Estimated Monthly User Cost for New Requirements as a Percent of MHI ³	0.005%
(3)	Total Monthly User Cost*	\$51.88
	Total Monthly User Cost as a Percent of MHI ⁴	1.88%

* Current User Rate + Estimated Monthly Costs of New Sampling Requirements

Due to the minimal cost associated with new permit requirements, the Department anticipates an extremely low to no rate increase will be necessary, which could impact individuals or households of this community.

(3) An evaluation of the overall costs and environmental benefits of the control technologies;

This analysis is being conducted based on new requirements in the permit, which will not require the addition of new control technologies at the facility. However, the new sampling requirements are being established in order to provide data regarding the health of the receiving stream's aquatic life and to ensure that the existing permit limits are providing adequate protection of aquatic life. Improved wastewater provides benefits such as avoided health costs due to water-related illness, enhanced environmental ecosystem quality, and improved natural resources. The preservation of natural resources has been proven to increase the economic value and sustainability of the surrounding communities. Maintaining Missouri's water quality standards fulfills the goal of **restoring** and **maintaining** the chemical, physical, and biological integrity of **the receiving stream**; and, where attainable, it achieves a level of water quality that provides for the protection and propagation of fish, shellfish, wildlife, and recreation in and on the water.

(4) Inclusion of ongoing costs of operating and maintaining the existing wastewater collection and treatment system, including payments on outstanding debts for wastewater collection and treatment systems when calculating projected rates:

The community reported that their outstanding debt for their current wastewater collection and treatment systems is \$3,163,634. The community reported that each user pays \$51.75 monthly, of which, \$31.50 is used toward payments on the current outstanding debt.

As shown in Criterion 2, the projected user rate plus the amount of the current user rate used toward payments on outstanding debt is \$51.88.

(5) An inclusion of ways to reduce economic impacts on distressed populations in the community, including but not limited to low and fixed income populations. This requirement includes but is not limited to:

- (a) Allowing adequate time in implementation schedules to mitigate potential adverse impacts on distressed populations resulting from the costs of the improvements and taking into consideration local community economic considerations.
- (b) Allowing for reasonable accommodations for regulated entities when inflexible standards and fines would impose a disproportionate financial hardship in light of the environmental benefits to be gained.

The following table characterizes the current overall socioeconomic condition of the community as compared to the overall socioeconomic condition of Missouri. The following information was compiled using the latest U.S. Census data.

Criterion 5 Table. Socioeconomic Data ^{1, 5-9} for the City of Stockton

No.	Administrative Unit	Stockton City	Missouri State
1	Population (2017)	1,897 6,07	
2	Percent Change in Population (2000-2017)	-3.2%	
3	2017 Median Household Income (in 2018 Dollars)	\$33,038	\$52,801
4	Percent Change in Median Household Income (2000-2017)	-13.5% -7	
5	Median Age (2017)	39.8	
6	Change in Median Age in Years (2000-2017)	-1.2	
7	Unemployment Rate (2017)	10.6%	5.8%
8	Percent of Population Below Poverty Level (2017)	20.6%	14.6%
9	Percent of Household Received Food Stamps (2017)	18.7%	12.2%
10	(Primary) County Where the Community Is Located	Cedar County	

(6) An assessment of other community investments and operating costs relating to environmental improvements and public health protection;

The City reported that it plans to paint both WWTP clarifiers for a cost of \$74,000, rehab 15 manholes for a cost of \$25,000, and replace bearings and chains for the headworks for a cost of \$25,169 this fiscal year.

(7) An assessment of factors set forth in the United States Environmental Protection Agency's guidance, including but not limited to the "Combined Sewer Overflow Guidance for Financial Capability Assessment and Schedule Development" that may ease the cost burdens of implementing wet weather control plans, including but not limited to small system considerations, the attainability of water quality standards, and the development of wet weather standards;

The new requirements associated with this permit will not impose a financial burden on the community, nor will they require the City of Stockton to seek funding from an outside source.

(8) An assessment of any other relevant local community economic conditions.

The community did not report any other relevant local economic conditions.

The Department contracted with Wichita State University to complete an assessment tool that would allow for predictions on rural Missouri community populations and future sustainability. The purpose of the study is to use a statistical modeling analysis in order to determine factors associated with each rural Missouri community that would predict the future population changes that could occur in each community. A stepwise regression model was applied to 19 factors which were determined as predictors of rural population change in Missouri. The model established a hierarchy of the predicting factors which allowed the model to place a weighted value on each of the factors. A total of 745 rural towns and villages in Missouri received a weighted value for each of the predicting factors. The weighted values for each town / village were then added together to determine an overall decision score. The overall decision score. The categorical groups were developed from the range of overall scores across all rural towns and villages within Missouri.

Based on the assessment tool, the City of Stockton has been determined to be a category 1 community. This means that the City of Stockton could potentially face more challenging socioeconomic circumstances over time and may have significant declines in population in the future. The Department has determined an adequate schedule of compliance that will alleviate the potential financial burdens that the City of Stockton may face due to the necessary upgrades required to meet the new permit requirements. If this community experiences a decline in population, which results in the inability to secure the necessary funding for an upgrade to meet the new requirements within this permit, a modification to the schedule of compliance with justification for the time necessary to comply with this permit.

Conclusion and Finding

As a result of new regulations, the Department is proposing modifications to the current operating permit that may require the permittee to increase monitoring. The Department has considered the eight (8) criteria presented in subsection 644.145 RSMo to evaluate the cost associated with the new permit requirements.

This analysis examined whether the new sampling requirements affect the ability of an individual customer or household to pay a utility bill without undue hardship or unreasonable sacrifice in the essential lifestyle or spending patterns of the individual or household. After reviewing the above criteria, the Department finds that the new sampling requirements may result in a low burden with regard to the community's overall financial capability and a low financial impact for most individual customers/households; therefore, the new permit requirements are affordable.

References

 (A) 2017 MHI in 2017 Dollar: United States Census Bureau. United States Census Bureau. 2013-2017 American Community Survey 5-Year Estimates, Table B19013: Median Household Income in the Past 12 Months (in 2017 Inflation-Adjusted Dollars). <u>http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_17_5YR_B19013&prodType=table</u>.

(B) 2000 MHI in 1999 Dollar: (1) For United States, United States Census Bureau (2003) 2000 Census of Population and Housing, Summary Social, Economic, and Housing Characteristics, PHC-2-1 Part 1. United States Summary, Table 5. Work Status and Income in 1999: 2000, Washington, DC. <u>https://www.census.gov/prod/cen2000/phc-2-1-pt1.pdf</u>. (2) For Missouri State, United States Census Bureau (2003) 2000 Census of Population and Housing, Summary Social, Economic, and Housing Characteristics, PHC-2-27, Missouri, Table 10. Work Status and Income in 1999: 2000, Washington, DC. <u>https://www.census.gov/prod/cen2000/phc-2-1-pt1.pdf</u>.

(C) 2018 CPI, 2017 CPI and 1999 CPI: U.S. Department of Labor Bureau of Labor Statistics (2018) Consumer Price Index - All Urban Consumers, U.S. City Average. All Items. 1982-84=100. http://data.bls.gov/timeseries/CUUR0000SA0?data_tool=Xgtable.

(D) 2017 MHI in 2018 Dollar = 2017 MHI in 2017 Dollar x 2018 CPI /2017 CPI; 2000 MHI in 2018 Dollar = 2000 MHI in 1999 Dollar x 2018 CPI /1999 CPI.

(E) Percent Change in Median Household Income (2000-2017) = (2017 MHI in 2018 Dollar - 2000 MHI in 2018 Dollar) / (2000 MHI in 2018 Dollar).

- 2. (\$1,324861)/12 = \$0.13 (Estimated Monthly User Cost for New Requirements)
- 3. (\$0.13/(\$33,038/12))100% = 0.005% (New Sampling Only)
- 4. (\$51.88/(\$33,038/12))100% = 1.88% (Total User Cost)
- (A) Total Population in 2017: United States Census Bureau. 2013-2017 American Community Survey 5-Year Estimates, Table B01003: Total Population - Universe: Total Population.

http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_17_5YR_B01003&prodType=table. (B) Total Population in 2000: (1) For United States, United States Census Bureau (2002) 2000 Census of Population and Housing, Summary Social, Economic, and Housing Characteristics, PHC-1-1 Part 1. United States Summary, Table 1. Age and Sex: 2000, Washington, DC. https://www.census.gov/prod/cen2000/phc-1-1-ptl.pdf. (2) For Missouri State, United States Census Bureau (2002) 2000 Census of Population

and Housing, Summary Population and Housing Characteristics, PHC-1-27, Missouri, Table 2. Age and Sex: 2000, Washington, DC. http://www.census.gov/prod/cen2000/phc-2-27-pt1.pdf.

(C) Percent Change in Population (2000-2017) = (Total Population in 2017 - Total Population in 2000) / (Total Population in 2000).

 (A) Median Age in 2017: United States Census Bureau. 2013-2017 American Community Survey 5-Year Estimates, Table B01002: Median Age by Sex - Universe: Total population.

http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_17_5YR_B01002&prodType=table. (B) Median Age in 2000: (1) For United States, United States Census Bureau (2002) 2000 Census of Population and Housing, Summary Social, Economic, and Housing Characteristics, PHC-1-1 Part 1. United States Summary, Table 1. Age and Sex: 2000, Washington, DC., Page 2. https://www.census.gov/prod/cen2000/phc-1-1-pt1.pdf. (2) For Missouri State, United States Census Bureau (2002) 2000 Census of Population and Housing, Summary Population and Housing Characteristics, PHC-1-27, Missouri, Table 2. Age and Sex: 2000, Washington, DC., Pages 64-92. http://www.census.gov/prod/cen2000/phc-2-27-pt1.pdf.

- (C) Change in Median Age in Years (2000-2017) = (Median Age in 2017 Median Age in 2000).
- United States Census Bureau. 2013-2017 American Community Survey 5-Year Estimates, B23025: Employment Status for the Population 16 Years and Over - Universe: Population 16 years and Over.

http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_17_5YR_B23025&prodType=table.

- 8. United States Census Bureau. 2013-2017 American Community Survey 5-Year Estimates, Table S1701: Poverty Status in the Past 12 Months. http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS_17_5YR_S1701&prodType=table.
- United States Census Bureau. 2013-2017 American Community Survey 5-Year Estimates, Table B22003: Receipt of Food Stamps/SNAP in the Past 12 Months by Poverty Status in the Past 12 Months for Households - Universe: Households. http://factfinder.census.gov/faces/tableservices/jsf/pages/productview.xhtml?pid=ACS 17 5YR B22003&prodType=table



These Standard Conditions incorporate permit conditions as required by 40 CFR 122.41 or other applicable state statutes or regulations. These minimum conditions apply unless superseded by requirements specified in the permit.

Part I – General Conditions

Section A - Sampling, Monitoring, and Recording

1. Sampling Requirements.

- a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
- b. All samples shall be taken at the outfall(s) or Missouri Department of Natural Resources (Department) approved sampling location(s), and unless specified, before the effluent joins or is diluted by any other body of water or substance.

2. Monitoring Requirements.

a.

- Records of monitoring information shall include:
- i. The date, exact place, and time of sampling or measurements;
- ii. The individual(s) who performed the sampling or measurements;
- iii. The date(s) analyses were performed;
- iv. The individual(s) who performed the analyses;
- v. The analytical techniques or methods used; and
- vi. The results of such analyses.
- b. If the permittee monitors any pollutant more frequently than required by the permit at the location specified in the permit using test procedures approved under 40 CFR Part 136, or another method required for an industry-specific waste stream under 40 CFR subchapters N or O, the results of such monitoring shall be included in the calculation and reported to the Department with the discharge monitoring report data (DMR) submitted to the Department pursuant to Section B, paragraph 7.
- 3. **Sample and Monitoring Calculations.** Calculations for all sample and monitoring results which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in the permit.
- Test Procedures. The analytical and sampling methods used shall conform 4. to the reference methods listed in 10 CSR 20-7.015 unless alternates are approved by the Department. The facility shall use sufficiently sensitive analytical methods for detecting, identifying, and measuring the concentrations of pollutants. The facility shall ensure that the selected methods are able to quantify the presence of pollutants in a given discharge at concentrations that are low enough to determine compliance with Water Quality Standards in 10 CSR 20-7.031 or effluent limitations unless provisions in the permit allow for other alternatives. A method is "sufficiently sensitive" when; 1) the method minimum level is at or below the level of the applicable water quality criterion for the pollutant or, 2) the method minimum level is above the applicable water quality criterion, but the amount of pollutant in a facility's discharge is high enough that the method detects and quantifies the level of pollutant in the discharge, or 3) the method has the lowest minimum level of the analytical methods approved under 10 CSR 20-7.015. These methods are also required for parameters that are listed as monitoring only, as the data collected may be used to determine if limitations need to be established. A permittee is responsible for working with their contractors to ensure that the analysis performed is sufficiently sensitive.
- 5. Record Retention. Except for records of monitoring information required by the permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five (5) years (or longer as required by 40 CFR part 503), the permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by the permit, and records of all data used to complete the application for the permit, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the Department at any time.

6. Illegal Activities.

- a. The Federal Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under the permit shall, upon conviction, be punished by a fine of not more than \$10,000, or by imprisonment for not more than two (2) years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than \$20,000 per day of violation, or by imprisonment of not more than (4) years, or both.
- b. The Missouri Clean Water Law provides that any person or who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained pursuant to sections 644.006 to 644.141 shall, upon conviction, be punished by a fine of not more than \$10,000, or by imprisonment for not more than six (6) months, or by both. Second and successive convictions for violation under this paragraph by any person shall be punished by a fine of not more than \$50,000 per day of violation, or by imprisonment for not more than two (2) years, or both.

Section B - Reporting Requirements

1. Planned Changes.

- The permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility when:
 - i. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b); or
 - ii. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under 40 CFR 122.42;
 - iii. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan;
 - iv. Any facility expansions, production increases, or process modifications which will result in a new or substantially different discharge or sludge characteristics must be reported to the Department 60 days before the facility or process modification begins. Notification may be accomplished by application for a new permit. If the discharge does not violate effluent limitations specified in the permit, the facility is to submit a notice to the Department of the changed discharge at least 30 days before such changes. The Department may require a construction permit and/or permit modification as a result of the proposed changes at the facility.

2. Non-compliance Reporting.

a. The permittee shall report any noncompliance which may endanger health or the environment. Relevant information shall be provided orally or via the current electronic method approved by the Department, within 24 hours from the time the permittee becomes aware of the circumstances, and shall be reported to the appropriate Regional Office during normal business hours or the Environmental Emergency Response hotline at 573-634-2436 outside of normal business hours. A written submission shall also be provided within five (5) business days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.



- b. The following shall be included as information which must be reported within 24 hours under this paragraph.
 - i. Any unanticipated bypass which exceeds any effluent limitation in the permit.
 - ii. Any upset which exceeds any effluent limitation in the permit.
 - Violation of a maximum daily discharge limitation for any of the pollutants listed by the Department in the permit required to be reported within 24 hours.
- c. The Department may waive the written report on a case-by-case basis for reports under paragraph 2. b. of this section if the oral report has been received within 24 hours.
- 3. Anticipated Noncompliance. The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements. The notice shall be submitted to the Department 60 days prior to such changes or activity.
- 4. Compliance Schedules. Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of the permit shall be submitted no later than 14 days following each schedule date. The report shall provide an explanation for the instance of noncompliance and a proposed schedule or anticipated date, for achieving compliance with the compliance schedule requirement.
- 5. **Other Noncompliance.** The permittee shall report all instances of noncompliance not reported under paragraphs 2, 3, and 6 of this section, at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph 2. a. of this section.
- 6. **Other Information**. Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Department, it shall promptly submit such facts or information.

7. Discharge Monitoring Reports.

- a. Monitoring results shall be reported at the intervals specified in the permit.
- b. Monitoring results must be reported to the Department via the current method approved by the Department, unless the permittee has been granted a waiver from using the method. If the permittee has been granted a waiver, the permittee must use forms provided by the Department.
- c. Monitoring results shall be reported to the Department no later than the 28^{th} day of the month following the end of the reporting period.

Section C - Bypass/Upset Requirements

1. Definitions.

- a. *Bypass*: the intentional diversion of waste streams from any portion of a treatment facility, except in the case of blending.
- b. Severe Property Damage: substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
- c. *Upset:* an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

2. Bypass Requirements.

a. Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs 2. b. and 2. c. of this section.

- b. Notice.
 - i. Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least 10 days before the date of the bypass.
 - Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in Section B – Reporting Requirements, paragraph 5 (24-hour notice).
- c. Prohibition of bypass.
 - i. Bypass is prohibited, and the Department may take enforcement action against a permittee for bypass, unless:
 - 1. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
 - 2. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
 - 3. The permittee submitted notices as required under paragraph 2. b. of this section.
 - ii. The Department may approve an anticipated bypass, after considering its adverse effects, if the Department determines that it will meet the three (3) conditions listed above in paragraph 2. c. i. of this section.

3. Upset Requirements.

- a. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of paragraph 3. b. of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.
- b. Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - i. An upset occurred and that the permittee can identify the cause(s) of the upset;
 - ii. The permitted facility was at the time being properly operated; and
 - iii. The permittee submitted notice of the upset as required in Section B

 Reporting Requirements, paragraph 2. b. ii. (24-hour notice).
 iv. The permittee complied with any remedial measures required under
 - iv. The permittee complied with any remedial measures required under Section D – Administrative Requirements, paragraph 4.
- c. Burden of proof. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

Section D - Administrative Requirements

- 1. **Duty to Comply.** The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Missouri Clean Water Law and Federal Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.
 - a. The permittee shall comply with effluent standards or prohibitions established under section 307(a) of the Federal Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions or standards for sewage sludge use or disposal, even if the permit has not yet been modified to incorporate the requirement.
 - b. The Federal Clean Water Act provides that any person who violates section 301, 302, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any such sections in a permit issued under section 402, or any requirement imposed in a pretreatment program approved under sections 402(a)(3) or 402(b)(8) of the Act, is subject to a civil penalty not to exceed \$25,000 per day for each violation. The Federal Clean Water Act provides that any person who negligently violates sections 301, 302, 306, 307, 308, 318, or 405 of the Act, or any condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, or any requirement



imposed in a pretreatment program approved under section 402(a)(3) or 402(b)(8) of the Act, is subject to criminal penalties of \$2,500 to \$25,000 per day of violation, or imprisonment of not more than one (1) year, or both. In the case of a second or subsequent conviction for a negligent violation, a person shall be subject to criminal penalties of not more than \$50,000 per day of violation, or by imprisonment of not more than two (2) years, or both. Any person who knowingly violates such sections, or such conditions or limitations is subject to criminal penalties of \$5,000 to \$50,000 per day of violation, or imprisonment for not more than three (3) years, or both. In the case of a second or subsequent conviction for a knowing violation, a person shall be subject to criminal penalties of not more than \$100,000 per day of violation, or imprisonment of not more than six (6) years, or both. Any person who knowingly violates section 301, 302, 303, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than \$250,000 or imprisonment of not more than 15 years, or both. In the case of a second or subsequent conviction for a knowing endangerment violation, a person shall be subject to a fine of not more than \$500,000 or by imprisonment of not more than 30 years, or both. An organization, as defined in section 309(c)(3)(B)(iii) of the CWA, shall, upon conviction of violating the imminent danger provision, be subject to a fine of not more than \$1,000,000 and can be fined up to \$2,000,000 for second or subsequent convictions.

- c. Any person may be assessed an administrative penalty by the EPA Director for violating section 301, 302, 306, 307, 308, 318 or 405 of this Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of this Act. Administrative penalties for Class I violations are not to exceed \$10,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed \$25,000. Penalties for Class II violations are not to exceed \$10,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed \$125,000.
- It is unlawful for any person to cause or permit any discharge of water d. contaminants from any water contaminant or point source located in Missouri in violation of sections 644.006 to 644.141 of the Missouri Clean Water Law, or any standard, rule or regulation promulgated by the commission. In the event the commission or the director determines that any provision of sections 644.006 to 644.141 of the Missouri Clean Water Law or standard, rules, limitations or regulations promulgated pursuant thereto, or permits issued by, or any final abatement order, other order, or determination made by the commission or the director, or any filing requirement pursuant to sections 644.006 to 644.141 of the Missouri Clean Water Law or any other provision which this state is required to enforce pursuant to any federal water pollution control act, is being, was, or is in imminent danger of being violated, the commission or director may cause to have instituted a civil action in any court of competent jurisdiction for the injunctive relief to prevent any such violation or further violation or for the assessment of a penalty not to exceed \$10,000 per day for each day, or part thereof, the violation occurred and continues to occur, or both, as the court deems proper. Any person who willfully or negligently commits any violation in this paragraph shall, upon conviction, be punished by a fine of not less than \$2,500 nor more than \$25,000 per day of violation, or by imprisonment for not more than one year, or both. Second and successive convictions for violation of the same provision of this paragraph by any person shall be punished by a fine of not more than \$50,000 per day of violation, or by imprisonment for not more than two (2) years, or both.

2. Duty to Reapply.

- a. If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit.
- b. A permittee with a currently effective site-specific permit shall submit an application for renewal at least 180 days before the expiration date of the existing permit, unless permission for a later date has been granted by the Department. (The Department shall not grant permission

for applications to be submitted later than the expiration date of the existing permit.)

- c. A permittees with currently effective general permit shall submit an application for renewal at least 30 days before the existing permit expires, unless the permittee has been notified by the Department that an earlier application must be made. The Department may grant permission for a later submission date. (The Department shall not grant permission for applications to be submitted later than the expiration date of the existing permit.)
- 3. **Need to Halt or Reduce Activity Not a Defense.** It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
- 4. **Duty to Mitigate.** The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.
- 5. Proper Operation and Maintenance. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

6. Permit Actions.

- a. Subject to compliance with statutory requirements of the Law and Regulations and applicable Court Order, this permit may be modified, suspended, or revoked in whole or in part during its term for cause including, but not limited to, the following:
 - i. Violations of any terms or conditions of this permit or the law;ii. Having obtained this permit by misrepresentation or failure to
 - disclose fully any relevant facts; iii. A change in any circumstances or conditions that requires either a
 - temporary or permanent reduction or elimination of the authorized discharge; or
 - iv. Any reason set forth in the Law or Regulations.
- b. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

7. Permit Transfer.

- a. Subject to 10 CSR 20-6.010, an operating permit may be transferred upon submission to the Department of an application to transfer signed by the existing owner and the new owner, unless prohibited by the terms of the permit. Until such time the permit is officially transferred, the original permittee remains responsible for complying with the terms and conditions of the existing permit.
- b. The Department may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the Missouri Clean Water Law or the Federal Clean Water Act.
- c. The Department, within 30 days of receipt of the application, shall notify the new permittee of its intent to revoke or reissue or transfer the permit.
- 8. **Toxic Pollutants.** The permittee shall comply with effluent standards or prohibitions established under section 307(a) of the Federal Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under section 405(d) of the Federal Clean Water Act within the time provided in the regulations that establish these standards or prohibitions or standards for sewage sludge use or disposal, even if the permit has not yet been modified to incorporate the requirement.
- 9. **Property Rights.** This permit does not convey any property rights of any sort, or any exclusive privilege.



- 10. **Duty to Provide Information.** The permittee shall furnish to the Department, within a reasonable time, any information which the Department may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The permittee shall also furnish to the Department upon request, copies of records required to be kept by this permit.
- 11. **Inspection and Entry.** The permittee shall allow the Department, or an authorized representative (including an authorized contractor acting as a representative of the Department), upon presentation of credentials and other documents as may be required by law, to:
 - Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of the permit;
 - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
 - c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
 - d. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Federal Clean Water Act or Missouri Clean Water Law, any substances or parameters at any location.

12. Closure of Treatment Facilities.

- Persons who cease operation or plan to cease operation of waste, wastewater, and sludge handling and treatment facilities shall close the facilities in accordance with a closure plan approved by the Department.
- b. Operating Permits under 10 CSR 20-6.010 or under 10 CSR 20-6.015 are required until all waste, wastewater, and sludges have been disposed of in accordance with the closure plan approved by the Department and any disturbed areas have been properly stabilized. Disturbed areas will be considered stabilized when perennial vegetation, pavement, or structures using permanent materials cover all areas that have been disturbed. Vegetative cover, if used, shall be at least 70% plant density over 100% of the disturbed area.

13. Signatory Requirement.

- a. All permit applications, reports required by the permit, or information requested by the Department shall be signed and certified. (See 40 CFR 122.22 and 10 CSR 20-6.010)
- b. The Federal Clean Water Act provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or noncompliance shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than six (6) months per violation, or by both.
- c. The Missouri Clean Water Law provides that any person who knowingly makes any false statement, representation or certification in any application, record, report, plan, or other document filed or required to be maintained pursuant to sections 644.006 to 644.141 shall, upon conviction, be punished by a fine of not more than ten thousand dollars, or by imprisonment for not more than six months, or by both.
- 14. **Severability.** The provisions of the permit are severable, and if any provision of the permit, or the application of any provision of the permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of the permit, shall not be affected thereby.



PART II - SPECIAL CONDITIONS – PUBLICLY OWNED TREATMENT WORKS SECTION A – INDUSTRIAL USERS

1. Definitions

Definitions as set forth in the Missouri Clean Water Laws and approved by the Missouri Clean Water Commission shall apply to terms used herein.

Significant Industrial User (SIU). Except as provided in the *General Pretreatment Regulation* 10 CSR 20-6.100, the term Significant Industrial User means:

- 1. All Industrial Users subject to Categorical Pretreatment Standards; and
- 2. Any other Industrial User that: discharges an average of 25,000 gallons per day or more of process wastewater to the Publicly-Owned Treatment Works (POTW) (excluding sanitary, noncontact cooling and boiler blowdown wastewater); contributes a process wastestream which makes up 5 percent or more of the average dry weather hydraulic or organic capacity of the POTW treatment plant; or is designated as such by the Control Authority on the basis that the Industrial User has a reasonable potential for adversely affecting the POTW's or for violating any Pretreatment Standard or requirement.

Clean Water Act (CWA) is the the federal Clean Water Act of 1972, 33 U.S.C. § 1251 et seq. (2002).

2. Identification of Industrial Discharges

Pursuant to 40 CFR 122.44(j)(1), all POTWs shall identify, in terms of character and volume of pollutants, any Significant Industrial Users discharging to the POTW subject to Pretreatment Standards under section 307(b) of the CWA and 40 CFR 403.

3. Application Information

Applications for renewal or modification of this permit must contain the information about industrial discharges to the POTW pursuant to 40 CFR 122.21(j)(6)

4. Notice to the Department

Pursuant to 40 CFR 122.42(b), all POTWs must provide adequate notice of the following:

- Any new introduction of pollutants into the POTW from an indirect discharger which would be subject to section 301 or 306 of CWA if it were directly discharging these pollutants; and
- 2. Any substantial change into the volume or character of pollutants being introduced into that POTW by a source introducing pollutants into the POTW at the time of issuance of the permit.
- 3. For purposes of this paragraph, adequate notice shall include information on:
 - i. the quality and quantity of effluent introduced into the POTW, and
 - ii. any anticipated impact of the change on the quantity or quality of effluent to be discharged from the POTW.

For POTWs without an approved pretreatment program, the notice of industrial discharges which was not included in the permit application shall be made as soon as practicable. For POTWs with an approved pretreatment program, notice is to be included in the annual pretreatment report required in the special conditions of this permit. Notice may be sent to:

> Missouri Department of Natural Resources Water Protection Program Attn: Pretreatment Coordinator P.O. Box 176 Jefferson City, MO 65102

PART III – SLUDGE AND BIOSOLIDS FROM DOMESTIC AND INDUSTRIAL WASTEWATER TREATMENT FACILITIES

SECTION A – GENERAL REQUIREMENTS

- This permit pertains to sludge requirements under the Missouri Clean Water Law and regulation for domestic
 wastewater and industrial process wastewater. This permit also incorporates applicable federal sludge disposal
 requirements under 40 CFR 503 for domestic wastewater. The Environmental Protection Agency (EPA) has principal
 authority for permitting and enforcement of the federal sludge regulations under 40 CFR 503 for domestic wastewater.
 EPA has reviewed and accepted these standard sludge conditions. EPA may choose to issue a separate sludge
 addendum to this permit or a separate federal sludge permit at their discretion to further address the federal
 requirements.
- These PART III Standard Conditions apply only to sludge and biosolids generated at domestic wastewater treatment facilities, including public owned treatment works (POTW), privately owned facilities and sludge or biosolids generated at industrial facilities.
- 3. Sludge and Biosolids Use and Disposal Practices:
 - a. The permittee is authorized to operate the sludge and biosolids treatment, storage, use, and disposal facilities listed in the facility description of this permit.
 - b. The permittee shall not exceed the design sludge volume listed in the facility description and shall not use sludge disposal methods that are not listed in the facility description, without prior approval of the permitting authority.
 - c. The permittee is authorized to operate the storage, treatment or generating sites listed in the Facility Description section of this permit.
- 4. Sludge Received from other Facilities:
 - a. Permittees may accept domestic wastewater sludge from other facilities including septic tank pumpings from residential sources as long as the design sludge volume is not exceeded and the treatment facility performance is not impaired.
 - b. The permittee shall obtain a signed statement from the sludge generator or hauler that certifies the type and source of the sludge
- 5. These permit requirements do not supersede nor remove liability for compliance with county and other local ordinances.
- 6. These permit requirements do not supersede nor remove liability for compliance with other environmental regulations such as odor emissions under the Missouri Air Pollution Control Law and regulations.
- This permit may (after due process) be modified, or alternatively revoked and reissued, to comply with any applicable sludge disposal standard or limitation issued or approved under Section 405(d) of the Clean Water Actor under Chapter 644 RSMo.
- 8. In addition to STANDARD CONDITIONS, the Department may include sludge limitations in the special conditions portion or other sections of a site specific permit.
- 9. Alternate Limits in the Site Specific Permit.
 - Where deemed appropriate, the Department may require an individual site specific permit in order to authorize alternate limitations:
 - a. A site specific permit must be obtained for each operating location, including application sites.
 - b. To request a site specific permit, an individual permit application, permit fee, and supporting documents shall be submitted for each operating location. This shall include a detailed sludge/biosolids management plan or engineering report.
- 10. Exceptions to these Standard Conditions may be authorized on a case-by-case basis by the Department, as follows:
 - a. The Department will prepare a permit modification and follow permit notice provisions as applicable under 10 CSR 20-6.020, 40 CFR 124.10, and 40 CFR 501.15(a)(2)(ix)(E). This includes notification of the owner of the property located adjacent to each land application site, where appropriate.
 - b. Exceptions cannot be granted where prohibited by the federal sludge regulations under 40 CFR 503.

SECTION B – DEFINITIONS

- 1. Best Management Practices include agronomic loading rates, soil conservation practices and other site restrictions.
- 2. Biosolids means organic fertilizer or soil amendment produced by the treatment of domestic wastewater sludge.
- 3. Biosolids land application facility is a facility where biosolids are spread onto the land at agronomic rates for production of food or fiber. The facility includes any structures necessary to store the biosolids until soil, weather, and crop conditions are favorable for land application.
- 4. Class A biosolids means a material that has met the Class A pathogen reduction requirements or equivalent treatment by a Process to Further Reduce Pathogens (PFRP) in accordance with 40 CFR 503.
- 5. Class B biosolids means a material that has met the Class B pathogen reduction requirements or equivalent treatment by a Process to Significantly Reduce Pathogens (PFRP) in accordance with 40 CFR 503.
- 6. Domestic wastewater means wastewater originating from the sanitary conveniences of residences, commercial buildings, factories and institutions; or co-mingled sanitary and industrial wastewater processed by a (POTW) or a privately owned facility.
- 7. Industrial wastewater means any wastewater, also known as process water, not defined as domestic wastewater. Per 40 CFR Part 122, process water means any water which, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, byproduct, or waste product.
- 8. Mechanical treatment plants are wastewater treatment facilities that use mechanical devices to treat wastewater, including septic tanks, sand filters, extended aeration, activated sludge, contact stabilization, trickling filters, rotating biological discs, and other similar facilities. It does not include wastewater treatment lagoons and constructed wetlands for wastewater treatment.
- 9. Operating location as defined in 10 CSR 20-2.010 is all contiguous lands owned, operated or controlled by one (1) person or by two (2) or more persons jointly or as tenants in common.
- 10. Plant Available Nitrogen (PAN) is the nitrogen that will be available to plants during the growing seasons after biosolids application.
- 11. Public contact site is land with a high potential for contact by the public. This includes, but is not limited to, public parks, ball fields, cemeteries, plant nurseries, turf farms, and golf courses.
- 12. Sludge is the solid, semisolid, or liquid residue removed during the treatment of wastewater. Sludge includes septage removed from septic tanks or equivalent facilities. Sludge does not include carbon coal byproducts (CCBs)
- 13. Sludge lagoon is part of a mechanical wastewater treatment facility. A sludge lagoon is an earthen basin that receives sludge that has been removed from a wastewater treatment facility. It does not include a wastewater treatment lagoon or sludge treatment units that are not a part of a mechanical wastewater treatment facility.
- 14. Septage is the material pumped from residential septic tanks and similar treatment works (with a design population of less than 150 people). The standard for biosolids from septage is different from other sludges.

SECTION C – MECHANICAL WASTEWATER TREATMENT FACILITIES

- 1. Sludge shall be routinely removed from wastewater treatment facilities and handled according to the permit facility description and sludge conditions of this permit.
- 2. The permittee shall operate the facility so that there is no sludge discharged to waters of the state.
- Mechanical treatment plants shall have separate sludge storage compartments in accordance with 10 CSR 20, Chapter 8. Failure to remove sludge from these storage compartments on the required design schedule is a violation of this permit.

SECTION D - SLUDGE DISPOSED AT OTHER TREATMENT FACILITY OR CONTRACT HAULER

- 1. This section applies to permittees that haul sludge to another treatment facility for disposal or use contract haulers to remove and dispose of sludge.
- 2. Permittees that use contract haulers are responsible for compliance with all the terms of this permit including final disposal, unless the hauler has a separate permit for sludge or biosolids disposal issued by the Department; or the hauler transports the sludge to another permitted treatment facility.
- 3. Haulers who land apply septage must obtain a state permit.
- 4. Testing of sludge, other than total solids content, is not required if sludge is hauled to a municipal wastewater treatment facility or other permitted wastewater treatment facility, unless it is required by the accepting facility.

SECTION E - INCINERATION OF SLUDGE

- 1. Sludge incineration facilities shall comply with the requirements of 40 CFR 503 Subpart E; air pollution control regulations under 10 CSR 10; and solid waste management regulations under 10 CSR 80.
- 2. Permittee may be authorized under the facility description of this permit to store incineration ash in lagoons or ash ponds. This permit does not authorize the disposal of incineration ash. Incineration ash shall be disposed in accordance with 10 CSR 80; or if the ash is determined to be hazardous with 10 CSR 25.
- 3. In addition to normal sludge monitoring, incineration facilities shall report the following as part of the annual report, quantity of sludge incinerated, quantity of ash generated, quantity of ash stored, and ash used or disposal method, quantity, and location. Permittee shall also provide the name of the disposal facility and the applicable permit number.

SECTION F - SURFACE DISPOSAL SITES AND SLUDGE LAGOONS

- 1. Surface disposal sites of domestic facilities shall comply with the requirements in 40 CFR 503 Subpart C; air pollution control regulations under 10 CSR 10; and solid waste management regulations under 10 CSR 80.
- 2. Sludge storage lagoons are temporary facilities and are not required to obtain a permit as a solid waste management facility under 10 CSR 80. In order to maintain sludge storage lagoons as storage facilities, accumulated sludge must be removed routinely, but not less than once every two years unless an alternate schedule is approved in the permit. The amount of sludge removed will be dependent on sludge generation and accumulation in the facility. Enough sludge must be removed to maintain adequate storage capacity in the facility.
 - a. In order to avoid damage to the lagoon seal during cleaning, the permittee may leave a layer of sludge on the bottom of the lagoon, upon prior approval of the Department; or
 - b. Permittee shall close the lagoon in accordance with Section H.

SECTION G - LAND APPLICATION

- 1. The permittee shall not land apply sludge or biosolids unless land application is authorized in the facility description or the special conditions of the issued NPDES permit.
- 2. Land application sites within a 20 miles radius of the wastewater treatment facility are authorized under this permit when biosolids are applied for beneficial use in accordance with these standard conditions unless otherwise specified in a site specific permit. If the permittee's land application site is greater than a 20 mile radius of the wastewater treatment facility, approval must be granted from the Department.
- 3. Land application shall not adversely affect a threatened or endangered species or its designated critical habitat.
- 4. Biosolids shall not be applied unless authorized in this permit or exempted under 10 CSR 20, Chapter 6.
 - a. This permit does not authorize the land application of domestic sludge except for when sludge meets the definition of biosolids.
 - b. This permit authorizes "Class A or B" biosolids derived from domestic wastewater and/or process water sludge to be land applied onto grass land, crop land, timber or other similar agricultural or silviculture lands at rates suitable for beneficial use as organic fertilizer and soil conditioner.
- 5. Public Contact Sites:

Permittees who wish to apply Class A biosolids to public contact sites must obtain approval from the Department after two years of proper operation with acceptable testing documentation that shows the biosolids meet Class A criteria. A shorter length of testing will be allowed with prior approval from the Department. Authorization for land applications must be provided in the special conditions section of this permit or in a separate site specific permit.

- a. After Class B biosolids have been land applied, public access must be restricted for 12 months.
- b. Class B biosolids are only land applied to root crops, home gardens or vegetable crops whose edible parts will not be for human consumption.
- 6. Agricultural and Silvicultural Sites:

Septage - Based on Water Quality guide 422 (WQ422) published by the University of Missouri

- a. Haulers that land apply septage must obtain a state permit
- b. Do not apply more than 30,000 gallons of septage per acre per year.
- c. Septage tanks are designed to retain sludge for one to three years which will allow for a larger reduction in pathogens and vectors, as compared to other mechanical type treatment facilities.
- d. To meet Class B sludge requirements, maintain septage at 12 pH for at least thirty (30) minutes before land application. 50 pounds of hydrated lime shall be added to each 1,000 gallons of septage in order to meet pathogen and vector stabilization for septage biosolids applied to crops, pastures or timberland.
- e. Lime is to be added to the pump truck and not directly to the septic tanks, as lime would harm the beneficial bacteria of the septic tank.

Biosolids - Based on Water Quality guide 423, 424, and 425 (WQ423, WQ424, WQ425) published by the University of Missouri;

- a. Biosolids shall be monitored to determine the quality for regulated pollutants
- b. The number of samples taken is directly related to the amount of sludge produced by the facility (See Section I of these Standard Conditions). Report as dry weight unless otherwise specified in the site specific permit. Samples should be taken only during land application periods. When necessary, it is permissible to mix biosolids with lower concentrations of biosolids as well as other suitable Department approved material to reach the maximum concentration of pollutants allowed.
- c. Table 1 gives the maximum concentration allowable to protect water quality standards

TABLE 1	
Biosolids c	eiling concentration ¹
Pollutant	Milligrams per kilogram dry weight
Arsenic	75
Cadmium	85
Copper	4,300
Lead	840
Mercury	57
Molybdenum	75
Nickel	420
Selenium	100
Zinc	7,500

¹ Land application is not allowed if the sludge concentration exceeds the maximum limits for any of these pollutants

d. The low metal concentration biosolids has reduced requirements because of its higher quality and can safely be applied for 100 years or longer at typical agronomic loading rates. (See Table 2)

TABLE 2	
Biosolids Lo	w Metal Concentration ¹
Pollutant	Milligrams per kilogram dry weight
Arsenic	41
Cadmium	39
Copper	1,500
Lead	300
Mercury	17
Nickel	420
Selenium	36
Zinc	2,800

You may apply low metal biosolids without tracking cumulative metal limits, provided the cumulative application of biosolids does not exceed 500 dry tons per acre.

e. Each pollutant in Table 3 has an annual and a total cumulative loading limit, based on the allowable pounds per acre for various soil categories.

TABLE 3						
D 11 4 4	CEC 15+ CEC 5 to 1 Annual Total ¹ Annual T		5 to 15	15 CEC 0 to 5		
Pollutant			Annual	Total ¹	Annual	Total ¹
Arsenic	1.8	36.0	1.8	36.0	1.8	36.0
Cadmium	1.7	35.0	5.0 0.9 9.0 0.4 4		4.5	
Copper	66.0	1,335.0	25.0	250.0	12.0	125.0
Lead	13.0	267.0	13.0	267.0	13.0	133.0
Mercury	0.7	15.0	0.7	15.0	0.7	15.0
Nickel	19.0	347.0	19.0	250.0	12.0	125.0
Selenium	4.5	89.0	4.5	44.0	1.6	16.0
Zinc	124.0	2,492.0	50.0	500.0	25.0	250.0

¹ Total cumulative loading limits for soils with equal or greater than 6.0 pH (salt based test) or 6.5 pH (water based test)

4

TABLE 4 - Guidelines	for land application of other trace substances ¹	

Cumulat	ive Loading
Pollutant	Pounds per acre
Aluminum	$4,000^2$
Beryllium	100
Cobalt	50
Fluoride	800
Manganese	500
Silver	200
Tin	1,000
Dioxin	$(10 \text{ ppt in soil})^3$
Other	4

¹ Design of land treatment systems for Industrial Waste, 1979. Michael Ray Overcash, North Carolina State University and Land Treatment of Municipal Wastewater, EPA 1981.)

- ² This applies for a soil with a pH between 6.0 and 7.0 (salt based test) or a pH between 6.5 to 7.5 (water based test). Case-by-case review is required for higher pH soils.
- ³ Total Dioxin Toxicity Equivalents (TEQ) in soils, based on a risk assessment under 40 CFR 744, May 1998.
- ⁴ Case by case review. Concentrations in sludge should not exceed the 95th percentile of the National Sewage Sludge Survey, EPA, January 2009.

Best Management Practices - Based on Water Quality guide 426 (WQ426) published by the University of Missouri

- a. Use best management practices when applying biosolids.
- b. Biosolids cannot discharge from the land application site
- c. Biosolid application is subject to the Missouri Department of Agriculture State Milk Board concerning grazing restrictions of lactating dairy cattle.
- d. Biosolid application must be in accordance with section 4 of the Endangered Species Act.
- e. Do not apply more than the agronomic rate of nitrogen needed.
- f. The applicator must document the Plant Available Nitrogen (PAN) loadings, available nitrogen in the soil, and crop removal when either of the following occurs: 1) When biosolids are greater than 50,000 mg/kg TN; or 2) When biosolids are land applied at an application rate greater than two dry tons per acre per year.
 - i. PAN can be determined as follows and is in accordance with WQ426
 - (Nitrate + nitrite nitrogen) + (organic nitrogen x 0.2) + (ammonia nitrogen x volatilization factor¹). ¹Volatilization factor is 0.7 for surface application and 1 for subsurface application.
- g. Buffer zones are as follows:
 - i. 300 feet of a water supply well, sinkhole, lake, pond, water supply reservoir or water supply intake in a stream;
 - 300 feet of a losing stream, no discharge stream, stream stretches designated for whole body contact recreation, wild and scenic rivers, Ozark National Scenic Riverways or outstanding state resource waters as listed in the Water Quality Standards, 10 CSR 20-7.031;
 - iii. 150 feet if dwellings;
 - iv. 100 feet of wetlands or permanent flowing streams;
 - v. 50 feet of a property line or other waters of the state, including intermittent flowing streams.
- h. Slope limitation for application sites are as follows;
 - i. A slope 0 to 6 percent has no rate limitation
 - ii. Applied to a slope 7 to 12 percent, the applicator may apply biosolids when soil conservation practices are used to meet the minimum erosion levels
 - Slopes > 12 percent, apply biosolids only when grass is vegetated and maintained with at least 80 percent ground cover at a rate of two dry tons per acre per year or less.
- i. No biosolids may be land applied in an area that it is reasonably certain that pollutants will be transported into waters of the state.
- j. Do not apply biosolids to sites with soil that is snow covered, frozen or saturated with liquid without prior approval by the Department.
- k. Biosolids / sludge applicators must keep detailed records up to five years.

SECTION H - CLOSURE REQUIREMENTS

- 1. This section applies to all wastewater facilities (mechanical, industrial, and lagoons) and sludge or biosolids storage and treatment facilities and incineration ash ponds. It does not apply to land application sites.
- 2. Permittees of a domestic wastewater facility who plan to cease operation must obtain Department approval of a closure plan which addresses proper removal and disposal of all residues, including sludge, biosolids. Mechanical plants, sludge lagoons, ash ponds and other storage structures must obtain approval of a closure plan from the Department. Permittee must maintain this permit until the facility is closed in accordance with the approved closure plan per 10 CSR 20 6.010 and 10 CSR 20 6.015.
- 3. Residuals that are left in place during closure of a lagoon or earthen structure or ash pond shall not exceed the agricultural loading rates as follows:
 - a. Residuals shall meet the monitoring and land application limits for agricultural rates as referenced in Section H of these standard conditions.
 - b. If a wastewater treatment lagoon has been in operation for 15 years or more without sludge removal, the sludge in the lagoon qualifies as a Class B biosolids with respect to pathogens due to anaerobic digestion, and testing for fecal coliform is not required. For other lagoons, testing for fecal coliform is required to show compliance with Class B biosolids limitations. In order to reach Class B biosolids requirements, fecal coliform must be less than 2,000,000 colony forming units or 2,000,000 most probable number. All fecal samples must be presented as geometric mean per gram.
 - c. The allowable nitrogen loading that may be left in the lagoon shall be based on the plant available nitrogen (PAN) loading. For a grass cover crop, the allowable PAN is 300 pounds/acre.
 - i. PAN can be determined as follows:
 - (Nitrate + nitrite nitrogen) + (organic nitrogen x 0.2) + (ammonia nitrogen x volatilization factor¹). ¹Volatilization factor is 0.7 for surface application and 1 for subsurface application.
- 4. When closing a domestic wastewater treatment lagoon with a design treatment capacity equal or less than 150 persons, the residuals are considered "septage" under the similar treatment works definition. See Section B of these standard conditions. Under the septage category, residuals may be left in place as follows:
 - a. Testing for metals or fecal coliform is not required
 - b. If the wastewater treatment lagoon has been in use for less than 15 years, mix lime with the sludge at a rate of 50 pounds of hydrated lime per 1000 gallons (134 cubic feet) of sludge.
 - c. The amount of sludge that may be left in the lagoon shall be based on the plant available nitrogen (PAN) loading. 100 dry tons/acre of sludge may be left in the basin without testing for nitrogen. If 100 dry tons/acre or more will be left in the lagoon, test for nitrogen and determine the PAN using the calculation above. Allowable PAN loading is 300 pounds/acre.
- 5. Residuals left within the domestic lagoon shall be mixed with soil on at least a 1 to 1 ratio, the lagoon berm shall be demolished, and the site shall be graded and contain ≥70% vegetative density over 100% of the site so as to avoid ponding of storm water and provide adequate surface water drainage without creating erosion.
- 6. Lagoons and/or earthen structure and/or ash pond closure activities shall obtain a storm water permit for land disturbance activities that equal or exceed one acre in accordance with 10 CSR 20-6.200
- When closing a mechanical wastewater and/or industrial process wastewater plant; all sludge must be cleaned out and disposed of in accordance with the Department approved closure plan before the permit for the facility can be terminated.
 - a. Land must be stabilized which includes any grading, alternate use or fate upon approval by the Department, remediation, or other work that exposes sediment to stormwater per 10 CSR 20-6.200. The site shall be graded and contain ≥70% vegetative density over 100% of the site, so as to avoid ponding of storm water and provide adequate surface water drainage without creating erosion.
 - Per 10 CSR 20-6.015(4)(B)6, Hazardous Waste shall not be land applied or disposed during industrial and mechanical plant closures unless in accordance with Missouri Hazardous Waste Management Law and Regulations under 10 CSR 25.
 - c. After demolition of the mechanical plant / industrial plant, the site must only contain clean fill defined in RSMo 260.200 (5) as uncontaminated soil, rock, sand, gravel, concrete, asphaltic concrete, cinderblocks, brick, minimal amounts of wood and metal, and inert solids as approved by rule or policy of the Department for fill or other beneficial use. Other solid wastes must be removed.
- 8. If sludge from the domestic lagoon or mechanical treatment plant exceeds agricultural rates under Section G and/or H, a landfill permit or solid waste disposal permit must be obtained if the permittee chooses to seek authorization for on-site sludge disposal under the Missouri Solid Waste Management Law and regulations per 10 CSR 80, and the permittee must comply with the surface disposal requirements under 40 CFR 503, Subpart C.

SECTION I – MONITORING FREQUENCY

1. At a minimum, sludge or biosolids shall be tested for volume and percent total solids on a frequency that will accurately represent sludge quantities produced and disposed. Please see the table below.

I ABLE 5				
Design Sludge	Μ	Monitoring Frequency (See Notes 1, 2, and 3)		
Production (dry tons per year)	Metals, Pathogens and Vectors	Nitrogen TKN ¹	Nitrogen PAN ²	Priority Pollutants and TCLP ³
0 to 100	1 per year	1 per year	1 per month	1 per year
101 to 200	biannual	biannual	1 per month	1 per year
201 to 1,000	quarterly	quarterly	1 per month	1 per year
1,001 to 10,000	1 per month	1 per month	1 per week	4
10,001 +	1 per week	1 per week	1 per day	4
Test total Vialda	hl nitrogan if higgalide a	autientien is 2 destaure au		

TABLE 5

¹ Test total Kjeldahl nitrogen, if biosolids application is 2 dry tons per acre per year or less.

² Calculate plant available nitrogen (PAN) when either of the following occurs: 1) when biosolids are greater than 50,000 mg/kg TN; or 2) when biosolids are land applied at an application rate greater than two dry tons per acre per year.

³ Priority pollutants (40 CFR 122.21, Appendix D, Tables II and III) and toxicity characteristic leaching procedure (40 CFR 261.24) is required only for permit holders that must have a pre-treatment program.

Note 1: Total solids: A grab sample of sludge shall be tested one per day during land application periods for percent total solids. This data shall be used to calculate the dry tons of sludge applied per acre. Note 2: Total Phosphorus: Total phosphorus and total potassium shall be tested at the same monitoring frequency as metals. Note 3: Table 5 is not applicable for incineration and permit holders that landfill their sludge.

- 2. If you own a wastewater treatment lagoon or sludge lagoon that is cleaned out once a year or less, you may choose to sample only when the sludge is removed or the lagoon is closed. Test one composite sample for each 100 dry tons of sludge or biosolids removed from the lagoon during the year within the lagoon at closing. Composite sample must represent various areas at one-foot depth.
- 3. Additional testing may be required in the special conditions or other sections of the permit. Permittees receiving industrial wastewater may be required to conduct additional testing upon request from the Department.
- 4. At this time, the Department recommends monitoring requirements shall be performed in accordance with, "POTW Sludge Sampling and Analysis Guidance Document," United States Environmental Protection Agency, August 1989, and the subsequent revisions.

SECTION J - RECORD KEEPING AND REPORTING REQUIREMENTS

- 1. The permittee shall maintain records on file at the facility for at least five years for the items listed in these standard conditions and any additional items in the Special Conditions section of this permit. This shall include dates when the sludge facility is checked for proper operation, records of maintenance and repairs and other relevant information.
- 2. Reporting period
 - a. By January 28th of each year, an annual report shall be submitted for the previous calendar year period for all mechanical wastewater treatment facilities, sludge lagoons, and sludge or biosolids disposal facilities.
 - b. Permittees with wastewater treatment lagoons shall submit the above annual report only when sludge or biosolids are removed from the lagoon during the report period or when the lagoon is closed.
- 3. Report Forms. The annual report shall be submitted on report forms provided by the Department or equivalent forms approved by the Department.
- 4. Reports shall be submitted as follows:

Major facilities (those serving 10,000 persons or 1 million gallons per day) shall report to both the Department and EPA. Other facilities need to report only to the Department. Reports shall be submitted to the addresses listed as follows:

DNR regional office listed in your permit (see cover letter of permit) ATTN: Sludge Coordinator EPA Region VII Water Compliance Branch (WACM)

Water Compliance Branch (WACM Sludge Coordinator 11201 Renner Blvd. Lenexa, KS 66219

⁴ One sample for each 1,000 dry tons of sludge.

- 5. Annual report contents. The annual report shall include the following:
 - a. Sludge and biosolids testing performed. Include a copy or summary of all test results, even if not required by the permit.
 - b. Sludge or biosolids quantity shall be reported as dry tons for quantity generated by the wastewater treatment facility, the quantity stored on site at the end of the year, and the quantity used or disposed.
 - c. Gallons and % solids data used to calculate the dry ton amounts.
 - d. Description of any unusual operating conditions.
 - e. Final disposal method, dates, and location, and person responsible for hauling and disposal.
 - i. This must include the name, address for the hauler and sludge facility. If hauled to a municipal wastewater treatment facility, sanitary landfill, or other approved treatment facility, give the name of that facility.
 - ii. Include a description of the type of hauling equipment used and the capacity in tons, gallons, or cubic feet.
 - f. Contract Hauler Activities:

If contract hauler, provide a copy of a signed contract from the contractor. Permittee shall require the contractor to supply information required under this permit for which the contractor is responsible. The permittee shall submit a signed statement from the contractor that he has complied with the standards contained in this permit, unless the contract hauler has a separate sludge or biosolids use permit.

- g. Land Application Sites:
 - i. Report the location of each application site, the annual and cumulative dry tons/acre for each site, and the landowners name and address. The location for each spreading site shall be given as a legal description for nearest ¹/₄, ¹/₄, Section, Township, Range, and county, or UTM coordinates. The facility shall report PAN when either of the following occurs: 1) When biosolids are greater than 50,000 mg/kg TN; or 2) when biosolids are land applied at an application rate greater than two dry tons per acre per year.
 - ii. If the "Low Metals" criteria are exceeded, report the annual and cumulative pollutant loading rates in pounds per acre for each applicable pollutant, and report the percent of cumulative pollutant loading which has been reached at each site.
 - iii. Report the method used for compliance with pathogen and vector attraction requirements.
 - iv. Report soil test results for pH, CEC, and phosphorus. If none was tested during the year, report the last date when tested and results.

· 29700		RE	CEIVED			
MISSOURI DEPARTMENT OF NATURAL RES WATER PROTECTION PROGRAM FORM B2 – APPLICATION FOR AN FACILITIES THAT RECEIVE PRIMAR HAVE A DESIGN FLOW MORE THAN		G PERMIT	IE AND	CHEC		
PART A – BASIC APPLICATION INFORMATION						
1. THIS APPLICATION IS FOR:						
 An operating permit for a new or unpermitted facil (Include completed Antidegradation Review or rec An operating permit renewal: Permit #MO-00552 	uest to condu	Expiration D		ew, see ins 19	structions -	5)
An operating permit modification: Permit #MO		Reason:				
1.1 Is the appropriate fee included with the application	(see instructio	ons for appropr	riate fee)?		□ YES	
2. FACILITY	and and					
NAME CITY OF STOCKTON WASTEWATER TREATMENT FACI	LITY			417-276		WITH AREA CODE
ADDRESS (PHYSICAL) 510 LEE HOPKINS DR.	STOCKTO	N		STATE MO		ZIP CODE 65785
		Sec. 09 , T	34N R 26M		COUNTY	
 LEGAL DESCRIPTION (Facility Site): NE ¼, NW UTM Coordinates Easting (X): <u>430490</u> Nort For Universal Transverse Mercator (UTM), Zone 	hing (Y):	4173704			CEDAF 3 (NAD8:	
2.3 Name of receiving stream: STOCKTON BRANCH						
2.4 Number of Outfalls: 1 wastewater outfalls	s,0 storr	nwater outfalls	s,0 instr	eam monit	toring site	es
3. OWNER			A STATE OF	13. 20		
NAME	EMA	IL ADDRESS		TELEPHON 4172765		WITH AREA CODE
ADDRESS	CITY			STATE		ZIP CODE
PO BOX 590 3.1 Request review of draft permit prior to Public Noti	STOCKTO		NO	MO		65785
 3.1 Request review of draft permit prior to Public Notif 3.2 Are you a Publically Owned Treatment Works (PC If yes, is the Financial Questionnaire attached? 						
3.3 Are you a Privately Owned Treatment Facility?		YES	NO NO			
3.4 Are you a Privately Owned Treatment Facility reg					YES	
4. CONTINUING AUTHORITY: Permanent organiza maintenance and modernization of the facility.	tion which w	ill serve as th	e continuing	authority	y for the	operation,
NAME CITY OF STOCKTON	EMA	NL ADDRESS		417-276		WITH AREA CODE
ADDRESS PO BOX 590	STOCKTO	DN		STATE MO		ZIP CODE 65785
If the Continuing Authority is different than the Owner, includescription of the responsibilities of both parties within the	ude a copy of	A220	greement bet	ween the	two partie	es and a
5. OPERATOR			Carlo -1			
NAME raymond heryford	Superinten	dent		CERTIFIC/	ATE NUMBER	R (IF APPLICABLE)
Email ADDRESS Citysaper: ntendent@stocktonmb.org	TELEPHONE	NUMBER WITH ARE	A CODE			
6. FACILITY CONTACT	5					
NAME		superintende	ent			
raymond heryford EMAIL ADDRESS		TELEPHONE NU	JMBER WITH AREA	CODE		
1000500	CITY	417-276-52	10	STATE		ZIP CODE
ADDRESS po box 590	stockton			mo		65785
780-1805 (09-16)						Page 2

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	city of stoc	Kho	MO- OOSS	280	OUTFALL NO.	
	TA-BASIC APPLIC	ATION INFOR				
AR	FACILITY INFORMA	Interest.				
1	Process Flow Diagr	am or Schem ding disinfection any treatment ive description	ion (e.g. – Chlorination process changes in the	and Dechlorinatio	ocesses of the treatment plant. Show all of n), influents, and outfalls. Specify where sa water during dry weather and peak wet weat	inpiea
	influent water travels two 40 ft. diameter cl	thru headwork arifiers. from c	ks building with screen	ing equipment to a	lge wastewater treatment plant. a 450,000 gallon oxidation ditch followed by bioogical selector basins while clean water is	5

FACILITY	stockton wwtf	PERMIT NO. MO-0055280	F LINWIT NO.		FALL NO.		
	A - BASIC APPLICATION INFORM						
Y ///////2401/16	FACILITY INFORMATION (continu						
7.2	 Topographic Map. Attach to this a property boundaries. This map mus a. The area surrounding the treatres. The location of the downstream c. The major pipes or other structure through which treated wastewar applicable. d. The actual point of discharge. e. Wells, springs, other surface way the treatment works, and 2) list f. Any areas where the sewage sig. If the treatment works receives (RCRA) by truck, rail, or special it is treated, stored, or disposed 	It show the outline of the nent plant, including all a landowner(s). (See Ite ures through which was ter is discharged from t ater bodies and drinking ed in public record or of ludge produced by the waste that is classified I pipe, show on the map	e facility and the unit processes. m 10.) tewater enters t he treatment pla g water wells that therwise known treatment works as bazardous u	tollowin he treatr int. Inclu at are: 1) to the ap is stored	within nent w ude ou within oplican d, treat	works and the p tfalls from byp ¼ mile of the t. ted, or dispose urce Conserva	pipes or other structures bass piping, if property boundaries of ed. ation and Recovery Act
7.3	Facility SIC Code: 4952		Discharge SIC 4952	Code:			
7.4	Number of people presently connect	ted or population equiv	alent (P.E.): <u>18</u>	379		Design P.E.	2232
7.5	Connections to the facility: Number of units presently connect Homes <u>769</u> Trailers Number of Commercial Establish	Apartments 6	Other (inclu	ding ind	ustrial)		
7.6	Design Flow 400000		Actual Flow 380000				
7.7	Will discharge be continuous throug Discharge will occur during the follo january-decem	wing months: How m	any days of the	No 🗌 week w	ill disc	harge occur?	
7.8	Is industrial wastewater discharged If yes, describe the number and typ superior gearbox metal fabrication	es of industries that dis		acility. A			
	Refer to the APPLICATION OVER			formatio		No	F.
7.9	and the second sec			Yes	-	No 🗹	
7.10	Is wastewater land applied? If yes, is Form I attached?			Yes		No 🗖	
7.11	Does the facility discharge to a losin	ng stream or sinkhole?		Yes]	No 🗹	
7.12	Has a wasteload allocation study b		facility?	Yes]	No 🗹	
8.	LABORATORY CONTROL INFOR	MATION					
	LABORATORY WORK CONDUCT	and the second second second second second	NNEL				
	Lab work conducted outside of plan	nt.				Yes 🗹	No 🗖
	Push-button or visual methods for Additional procedures such as Diss Oxygen Demand, titrations, solids,	olved Oxygen, Chemic			logical	Yes ☑ Yes □	No 🗌
	More advanced determinations suc nutrients, total oils, phenols, etc.	h as BOD seeding proc			aranh	Yes 🗌 Yes 🗖	No 🗹 No 🔽
	Highly sophisticated instrumentatio	n, such as atomic abso	puon and gas c	anomate	Sichu		Page 4

	Stockton	PERMIT NO. MO- 005528	30	OUTFALL NO		
	T A - BASIC APPLICATIO					
).	SLUDGE HANDLING, U					
		the second se	CSR 25? Yes	N	lo 🗹	
9.1	125	us waste as defined by 10 (and the second second	
9.2	Sludge production (Inclu	iding sludge received from	others): Design Dry Tons/	Year 230 Ac	tual Dry 1	ons/Year24.4
9.3		d: 2840C Cubic feet; 120		Average percent	solids of s	ludge;
	No sludge storage is	provided. Sludge is sto	ored in lagoon.			
9.4	Type of storage:	 ☐ Holding Tank ☑ Basin ☐ Concrete Page 	Lagoon			
9.5	Sludge Treatment:					
	Anaerobic Digester	☐ Storage Tank ☐ Air or Heat Drying	Lime Stabilization			Description)
9.6	Sludge use or disposal:					
	Other (Attach Explan	udge Disposal Lagoon, Slu nation Sheet)			Solid	Waste Landfill eration
9.7		auling sludge to disposal fa By Others (complete be	acility:			
NAME	By Applicant	_ by Others (complete be	SIOW)	EMAIL ADDRESS		
	fstockton					
ADDR	Server a se		CITY		STATE	ZIP CODE
o bo	x 590		stockton		mo	65785
CONT	ACT PERSON		TELEPHONE NUMBER WITH A	REA CODE	PERMIT N	
aym	ond heryford		417-276-5210		мо-00	55280
9.8	Sludge use or disposal	facility: By Others (Complete be	elow)			
NAME				EMAIL ADDRESS		
ity o	f stockton					
ADDR	ESS		CITY		STATE	ZIP CODE
bo bo	ox 590		stockton		PERMIT N	65785
CONT	ACT PERSON			EPHONE NUMBER WITH AREA CODE		
aym	ond heryford		417-276-5210		MO- ⁰⁰⁵⁵²⁸⁰	
9.9		solids disposal comply with cplain)	1 Federal Sludge Regulatio	on 40 CFR 503?		
			END OF PART A			

FACILITY NAME		OUTFALL NO.
city of stockton wwtf	PERMIT NO. MO-0055280	001
PART B - ADDITIONAL API		
10. COLLECTION SYSTE		
	ver collection system in miles	
16		
10.2 Does significant infiltr If yes, briefly explain nain replacement and manho	ation occur in the collection system? PY any steps underway or planned to minimize e rehab	es
11. BYPASSING		atment facility? Yes 🗹 No 🗌
If yes, explain: rotor shutdown during high flo	nywhere in the collection system or at the tre	
	INTENANCE PERFORMED BY CONTRAC	
Are any operational or maint responsibility of the contracto	enance aspects (related to wastewater treat or? s, telephone number and status of each cont	TOR(S) ment and effluent quality) of the treatment works the ractor and describe the contractor's responsibilities.
Are any operational or maint responsibility of the contracto Yes No I If Yes, list the name, address (Attach additional pages if ne	enance aspects (related to wastewater treat or? s, telephone number and status of each cont	ment and effluent quality) of the treatment works the
Are any operational or maint responsibility of the contractor Yes No I If Yes, list the name, address (Attach additional pages if no NAME	enance aspects (related to wastewater treat or? s, telephone number and status of each cont acessary.)	ment and effluent quality) of the treatment works the
Are any operational or maint responsibility of the contracto Yes No 2 If Yes, list the name, address (Attach additional pages if ne NAME MAILING ADDRESS	enance aspects (related to wastewater treat or? s, telephone number and status of each cont acessary.)	ment and effluent quality) of the treatment works the ractor and describe the contractor's responsibilities.
Are any operational or maint responsibility of the contractor Yes No I If Yes, list the name, address (Attach additional pages if no NAME MAILING ADDRESS TELEPHONE NUMBER WITH AREA COD RESPONSIBILITIES OF CONTRACTOR	enance aspects (related to wastewater treat or? s, telephone number and status of each cont ecessary.) E E EMAIL	ment and effluent quality) of the treatment works the ractor and describe the contractor's responsibilities.

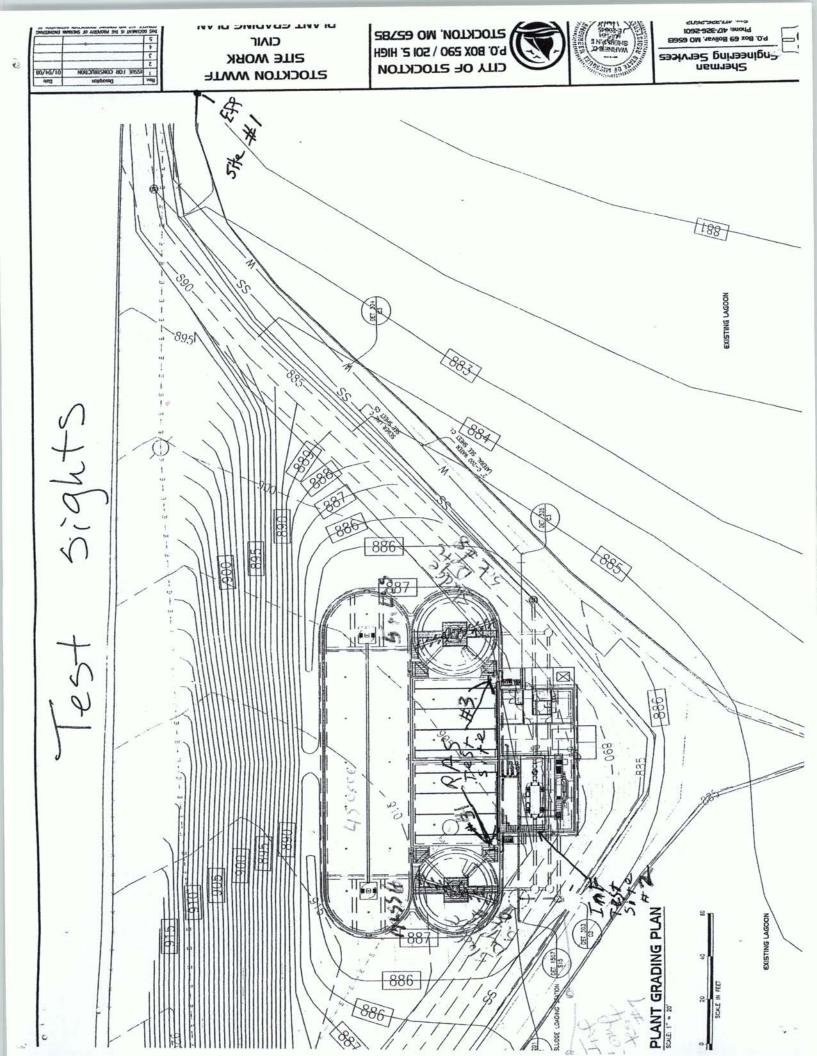
.

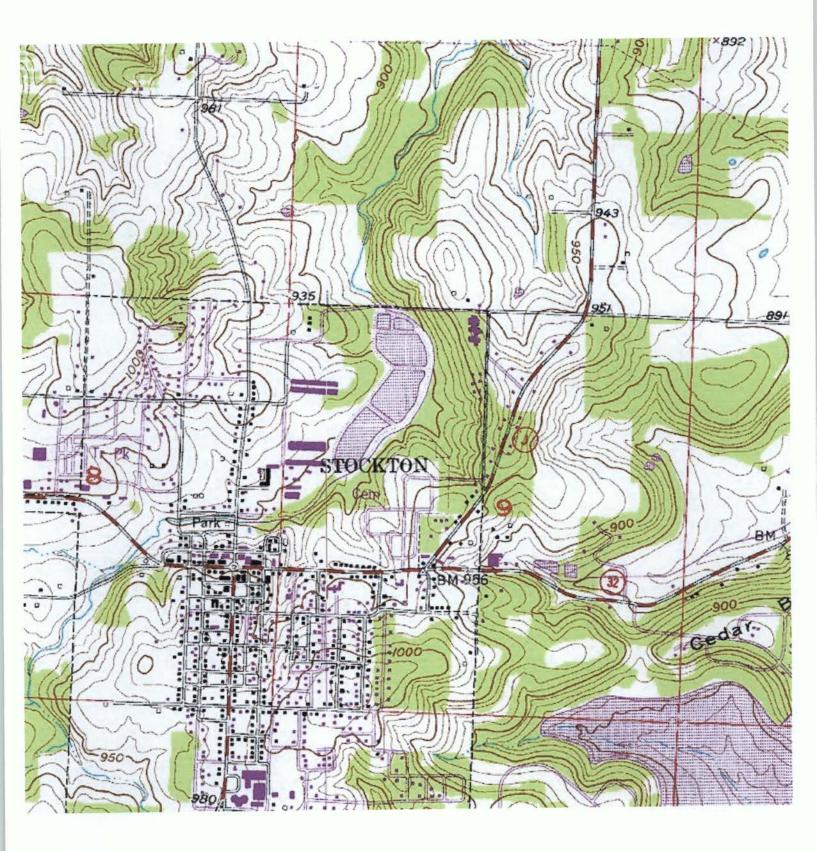
÷

FACILITY NAME			PERMIT NO. MO-005528	30		OUTFALL N	NO.		
PART B - ADDITIC	NAL APPL	ICATION IN	FORMATION	I					
14. EFFLUENT	TESTING D	ATA							
Applicants must pro through which effl reported must be ba comply with QA/QC not addressed by 44 more than four and	uent is dis ased on dat requirement CFR Part	charged. Do a collected the nts of 40 CFI 136. At a m	o not include i hrough analys	information is conducte	of combined s d using 40 Cl	FR Part 136 met	hods. In ad	dition, this	s data must s for analytes
Outfall Number						1			
PAR	METER		MAXI	NUM DAILY	-	-	VERAGE D	-	
CAIV.			Va	alue	Units	Value	Units	Numb	er of Samples
pH (Minimum)				6.6	S.U.	7.4	S.U.		1
pH (Maximum)			7	.9	S.U.	7.4	S.U.		1
Flow Rate			3.0	470	MGD	.2177	MGD		1
*For pH report a mi	nimum and	a maximum	daily value						1
	1.T		MAXIMUM DAILY AVERAGE I DISCHARGE		AGE DAILY D	GE DAILY DISCHARGE		TICAL	ML/MDL
POLLUTAN		Conc.	Units	Conc.	Units	Number of Samples	METH	IOD	
Conventional and N	lonconventi	ional Compo	unds						
BIOCHEMICAL OXYGEN	BOD ₅	20	mg/L	5	mg/L	52			
DEMAND (Report One)	CBOD ₅		mg/L		mg/L				
E. COLI		768	#/100 mL	27	#/100 mL	52			
TOTAL SUSPEND SOLIDS (TSS)	ED	11.2	mg/L	3.2	mg/L	52			
AMMONIA (as N)		1.95	mg/L	.21	mg/L	52			
CHLORINE* (TOTAL RESIDUA	L, TRC)		mg/L		mg/L				
DISSOLVED OXYO	GEN	11.5	mg/L	6.74	mg/L	260			
OIL and GREASE		7	mg/L	2	mg/L	52			
OTHER			mg/L		mg/L				
*Report only if facil	ity chlorinat	es							
	CITE AND AND			END OF	PART B				Page 7

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CAON TO MANY	PERMIT NO.	OUTFALL NO.
Sity of stockton WUTF	MO- 0055280	601
PART C - CERTIFICATION		
15. ELECTRONIC DISCHARGE MONIT	FORING REPORT (eDM	R) SUBMISSION SYSTEM
and monitoring shall be submitted by the ne	ermittee via an electronic ng must be checked in	em (NPDES) Electronic Reporting Rule, reporting of effluent limits c system to ensure timely, complete, accurate, and nationally- order for this application to be considered complete. Please icipation Package.
		the required documentation to participate in the eDMR system.
eDMR system.		participate in the eDMR system and/or you are currently using the
You have submitted a written request waivers.	for a waiver from electro	nic reporting. See instructions for further information regarding
16. CERTIFICATION		
applicants must complete all applicable see applicants confirm that they have reviewed application is submitted.	ctions as explained in the the entire form and have	tion must be signed by an officer of the company or city official. All e Application Overview. By signing this certification statement, e completed all sections that apply to the facility for which this
ALL APPLICANTS MUST COMPLETE TH	IE FOLLOWING CERTI	FICATION.
with a system designed to assure that qual	ified personnel properly ge the system or those (and belief, true, accuration	
MARY NORELL		OFFICIAL TITLE (MUST BE AN OFFICER OF THE COMPANY OR CITY OFFICIAL)
SIGNATURE and love	00	
TELEPHONE NUMBER WITH AREA CODE 417 - 276 - 5210	0	
DATE SIGNED 3-29-18		
9	ou must submit any othe ate permitting requireme	er information necessary to assess wastewater treatment practices nts.
Sand Completed Form to:		
Send Completed Form to:	Department of N	latural Resources
	Water Prote	ction Program
		and Engineering Section
		3ox 176 MO 65102-0176
		PART C
REFER TO THE APPLICATION O	VERVIEW TO DETERM	INE WHICH PARTS OF FORM B2 YOU MUST COMPLETE.
Do not complete the remainder of this app	lication, unless at least of	one of the following statements applies to your facility:
 Your facility design flow 	is equal to or greater that	an 1,000,000 gallons per day.
2. Your facility is a pretreat	tment treatment works.	
3. Your facility is a combin		L. D. withfree forestured applications shall be
Submittal of an incomplete application ma forfeited. Permit fees for applications bein	y result in the application og processed by the dep	n being returned. Permit fees for returned applications shall be artment that are withdrawn by the applicant shall be forfeited.
A CONTRACT OF C		
780-1805 (09-16)		Page 8





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RECEIVED APR 16 2018 MISSOURI DEPARTMENT OF NATURAL RESOURCES WATER PROTECTION PROGRAM FORM B2 – APPLICATION FOR OPERATING PERMIT FOR FACILITIES THE Water Notection Program RECEIVE PRIMARILY DOMESTIC WASTE AND HAVE A DESIGN FLOW MORE THAN otection Program

COUNTY

CEDAR

CITY OF STOCKTON WWT	F
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PERMIT NO. MO-0055280

FACILITY NAME

APPLICATION OVERVIEW

Form B2 has been developed in a modular format and consists of Parts A, B and C and a Supplemental Application Information (Parts D, E, F and G) packet. All applicants must complete Parts A, B and C. Some applicants must also complete parts of the Supplemental Application Information packet. The following items explain which parts of Form B2 you must complete. Submittal of an incomplete application may result in the application being returned.

BASIC APPLICATION INFORMATION

- Basic application information for all applicants. All applicants must complete Part A. A.
- Additional application information for all applicants. All applicants must complete Part B. Β.
- Certification. All applicants must complete Part C. C.

SUPPLEMENTAL APPLICATION INFORMATION

- Expanded Effluent Testing Data. A treatment works that discharges effluent to surface water of the United States D. and meets one or more of the following criteria must complete Part D - Expanded Effluent Testing Data:
 - Has a design flow rate greater than or equal to 1 million gallons per day. 1.
 - Is required to have or currently has a pretreatment program. 2.
 - Is otherwise required by the permitting authority to provide the information. 3.
- Toxicity Testing Data. A treatment works that meets one or more of the following criteria must complete Part E -E. Toxicity Testing Data:
 - Has a design flow rate greater than or equal to 1 million gallons per day. 1.
 - Is required to have or currently has a pretreatment program. 2.
 - Is otherwise required by the permitting authority to provide the information. 3.
- Industrial User Discharges and Resource Conservation and Recovery Act / Comprehensive Environmental F. Response, Compensation and Liability Act Wastes. A treatment works that accepts process wastewater from any significant industrial users, also known as SIUs, or receives a Resource Conservation and Recovery Act or CERCLA wastes must complete Part F - Industrial User Discharges and Resource Conservation and Recovery Act /CERCLA Wastes.

SIUs are defined as:

- All Categorical Industrial Users, or CIUs, subject to Categorical Pretreatment Standards under 40 Code of 1. Federal Regulations 403.6 and 40 Code of Federal Regulations 403.6 and 40 CFR Chapter 1, Subchapter N.
- Any other industrial user that meets one or more of the following: 2.
 - Discharges an average of 25,000 gallons per day or more of process wastewater to the treatment i. works (with certain exclusions).
 - Contributes a process waste stream that makes up five percent or more of the average dry weather ii. hydraulic or organic capacity of the treatment plant.
 - Is designated as an SIU by the control authority. iii.
 - Is otherwise required by the permitting authority to provide the information. iv.
- Combined Sewer Systems. A treatment works that has a combined sewer system must complete Part G -G. Combined Sewer Systems.

ALL APPLICANTS MUST COMPLETE PARTS A, B and C

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RECEIVED APR 16 2018

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MISSOURI DEPARTMENT OF NATURAL RESOURCES WATER PROTECTION PROGRAM eDMR PERMIT HOLDER AND CERTIFIER REGISTRATION

Water Protection Program

Complete this form to register a permit holder fo authorized representatives assigned an electron	r electronic reporting. This form shou ic signature for the department's eD	uld also be used to identify MR system.	or change	
PART A. PERMIT HOLDER INFORMATION				
PERMIT NUMBER	FACILITY NAME			
MO-0055280	CITY OF STOCKTON V	WWTF		
ADDRESS	CITY	STATE	ZIP CODE	
PO BOX 590	STOCKTON	MO	65785	
PERMIT HOLDER ACCOUNT ACTION				
New Application Revised Permit Hold	er or Account Information	Request for Reactivation		
PART B. USER ACCOUNT INFORMATION			A REAL PROPERTY.	
USER ACCOUNT ACTION	ACCOUNT TYPE			
Add Update Delete	Viewer Prep	arer 🗹 Certifier		
LAST NAME	FIRST NAME		MIDDLE INITIAL	
HERYFORD	RAYMOND		L	
JOB TITLE	EMPLOYER'S NAME			
SUPERINTENDENT	CITY OF STOCKTON			
	TEL	EPHONE NUMBER WITH AREA COD	E	
citysoperintendent@staktur	1MO.Org 4	17-955-1432		
ADDRESS		STATE	ZIP CODE	
17285 E 900 RD	STOCKTON	MO	65785	
USER ACCOUNT ACTION	ACCOUNT TYPE			
Add Update Delete		oarer Certifier		
LAST NAME	FIRST NAME		MIDDLE INITIAL	
SORGEN	JUSTIN		R	
JOB TITLE	EMPLOYER'S NAME			
OPERATOR	CITY OF STOCKTON			
EMAIL	TE	LEPHONE NUMBER WITH AREA COL	DE	
jsorgen79@gmail.com	4	17-276-7908		
ADDRESS	CITY	STATE	ZIP CODE	
1521 E 380 RD	BOLIVAR	MO	65613	
	ACCOUNT TYPE			
		oarer 🗹 Certifier		
			MIDDLE INITIAL	
	KRISTOPHER			
STOVALL	EMPLOYER'S NAME			
	CITY OF STOCKTON			
		LEPHONE NUMBER WITH AREA COL	DE	
EMAIL		17-955-0067		
kris_stovall@yahoo.com	CITY	STATE	ZIP CODE	
ADDRESS 20565 E 1700 RD	FAIR PLAY	MO	65649	
20000 E 1700 KD			C.R.C.R.444-53	

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PART C. PERMIT HOLDER REGISTRATION

I request the above identified permit holder be registered for electronic reporting and request any department initiated minor permit revisions (where no fee is required) that may be necessary to allow use of the department's eDMR system. As the permit holder, I agree the authorized representatives will follow permit requirements and the procedures for the electronic submission of DMR forms, as described in the permit holder participation package.

Please establish or revise the above user accounts in accordance with the information provided for each identified account. The person(s) identified as certifier(s) are hereby designated as the authorized representatives for all reporting purposes. I understand each person to receive a certifier account on the eDMR system must complete Part D and must sign in the presence of a Notary Public.

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

PERMIT HOLDER NAME (TYPE OR PRINT) MARY OURELL OFFICIAL TITLE (TYPE OR PRINT) MAYOR

PART D. CERTIFIER REGISTRATION

The permit holder and certifier intend to have the submission of eDMRs be the functional equivalent of the paper submissions required by a permit issued in accordance with the Missouri Clean Water Law, Chapter 644, RSMo and/or the Clean Water Act, 33 U.S.C. § 1251, *et seq.* The certifier will use a validly issued PIN as a signature when submitting eDMRs. The permit holder and certifier agree not to contest the validity of eDMRs submitted under an authorized PIN based on the fact such submissions were completed electronically. The permit holder and certifier further agree the provisions of the Uniform Electronic Transactions Act, Sections 432.200 through 432.295, RSMo, shall apply, except as otherwise stated herein or within the permit holder participation package.

The permit holder and certifier agree:

- 1. Any eDMR submitted under the PIN specific to the certifier shall be considered a "writing" or "in writing;" and any such records shall be deemed for all purposes:
 - a. To have been "signed" by the certifier.
 - b. To constitute an "original" when printed from electronic files or records.
- 2. Electronic DMRs constitute admissible evidence in any judicial or administrative proceeding.

An electronically submitted DMR will not satisfy a reporting requirement until it has been received and accepted by the department. If an electronically submitted DMR is rejected, the permit holder shall take the necessary steps to properly resubmit such DMR within 24 hours of the notice of rejection.

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By signing below, the permit holder and certifier agree with the	terms and conditions of Part D.
Certifier (most store prosence or surface) VANESSA C. HARPER NOTARY PUBLIC, NOTARY SEAL STATE OF MISSOURI	<u>3-29-</u> KJ Date
CEDAR COUNTY COMMISSION # 11998945 MY COMMISSION EXPIRES 12-20-2019 Notary Public 1*	<u>3-28-18</u> Date
Permit Holder (must sign) in presence of Notary)	3-29-18 Date
Notary Public 2*	Date
 Notary public 1 is for use if both the permit holder and the certifier notary so desires they may sign and stamp both locations. If the certifier and the permit holder do not sign at the same time, t the permit holder. In cases when the certifier and the permit holder are not in the sam of their ability (including signature and notary public 1) and send the signature and notary public 2). 	hen notary 1 is specific to the certifier and notary 2 is specific to ne location, the certifier must complete the application to the bes

MO 780-2204 (01-17)

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By signing below, the permit holder and certifier agree with the terms and conditions of Part D. 3/29/18 Date Certifier (mu VANESSA C NOTARY PUBLIC, NOTARY SEAL STATE OF MISSOURI CEDAR COUNTY COMMISSION # 11998945 MY COMMISSION EXPIRES 12-20-2019 3-29-18 Date Notary Public 1* 3-29-18 Date Permit Holder (must sign in presence of Notary) Date Notary Public 2* Notary public 1 is for use if both the permit holder and the certifier both sign in the presence of the same notary; however, if the notary so desires they may sign and stamp both locations. If the certifier and the permit holder do not sign at the same time, then notary 1 is specific to the certifier and notary 2 is specific to the permit holder. In cases when the certifier and the permit holder are not in the same location, the certifier must complete the application to the best of their ability (including signature and notary public 1) and send the document to the permit holder to be completed (including signature and notary public 2).

MO 780-2204 (01-17)

By signing below, the permit holder and certifier agree with the terms and conditions of Part D. 4-10-18 Min Date of Notany) an in th Certifier (mus VANESSA C. HARPER NOTARY PUBLIC, NOTARY SEAL STATE OF MISSOURI CEDAR COUNTY COMMISSION # 11998945 MY COMMISSION EXPIRES 12-20-2019 -10-18 Date Notary Public 1* 4-10-18 Date Permit Holder (must sign in presence of Notary) VANESSA C. HARPER NOTARY PUBLIC, NOTARY SEAL STATE OF MISSOURI CEDAR COUNTY COMMISSION # 11998945 MY COMMISSION EXPIRES 12-20-2019 Date Notary Public 2* Notary public 1 is for use if both the permit holder and the certifier both sign in the presence of the same notary; however, if the * notary so desires they may sign and stamp both locations. If the certifier and the permit holder do not sign at the same time, then notary 1 is specific to the certifier and notary 2 is specific to the permit holder. In cases when the certifier and the permit holder are not in the same location, the certifier must complete the application to the best of their ability (including signature and notary public 1) and send the document to the permit holder to be completed (including signature and notary public 2). MO 780-2204 (01-17)

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