

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 RSMo, hereinafter, the Law), and the Federal Water Pollution Control Act (Public Law 92-500, 92nd Congress) as amended,

Permit No. MO-0003646

Owner: City of Independence
Address: 20201 E. Jackson Dr., Independence, MO 64057

Continuing Authority:
Address: Same as above

Facility Name: Courtney Bend Drinking Water Treatment Plant
Facility Address: 14700 Cement City Road, Sugar Creek, MO 64058

Legal Description: Sec. 11, T50N, R32W, Jackson County
UTM Coordinates: Outfall #001: X = 378852; Y = 4335856
#001 samples are taken X = 378864; Y = 4335465
Outfall #003: X = 378742; Y = 4335386

Receiving Stream: Missouri River
First Classified Stream and ID: Missouri River (P) WBID #356
USGS Basin & Sub-watershed No.: 103001010305: Rock Creek-Missouri River

authorizes activities pursuant to the terms and conditions of this permit in accordance with the Missouri Clean Water Law and/or the National Pollutant Discharge Elimination System; it does not apply to other regulated activities.

FACILITY DESCRIPTION

Drinking water treatment plant wastewater discharge. Lime addition, settling, chlorination. Domestic wastewater is managed by piping to a POTW.

April 1, 2026
Effective Date

March 31, 2031
Expiration Date

Heather S. Peters, Director, Water Protection Program

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

OUTFALLS #001 & #003 wastewater		TABLE A-1 INTERIM EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS			
The facility is authorized to discharge from outfall(s) as specified. In accordance with 10 CSR 20-7.031, the final effluent limitations outlined in Table A-2 must be achieved as soon as possible but no later than <u>April 1, 2036</u> . These interim effluent limitations are effective beginning <u>April 1, 2026</u> and remain in effect through <u>March 31, 2036</u> . Discharges shall be controlled, limited, and monitored by the facility as specified below:					
EFFLUENT PARAMETERS	UNITS	INTERIM EFFLUENT LIMITATIONS		MONITORING REQUIREMENTS	
		DAILY MAXIMUM	MONTHLY AVERAGE	MINIMUM MEASUREMENT FREQUENCY	SAMPLE TYPE
LIMIT SET: M - MONTHLY					
PHYSICAL & SOLIDS					
Flow	MGD	*	3.0	daily	24 hr. total
Visual Assessment ♣	pass/fail	*	-	once/month	visual
Water Treatment Additives	tons	* total tons	*	daily	measured
Settleable Solids	mL/L/hr	*	*	once/month	grab **
Source Water Solids ♥	tons	* total tons	*	once/week *	calculation ♥
Total Suspended Solids	mg/L	*	*	once/week *	grab **
Total Suspended Solids	tons/day	* total tons	691.2	once/week *	calculation ♠
CONVENTIONAL					
Chlorine, Total Residual ‡	µg/L	*	*	once/month	grab
pH †	SU	6.5 to 10.5	-	once/week *	grab
MONITORING REPORTS SHALL BE SUBMITTED <u>MONTHLY</u> ; THE FIRST REPORT IS DUE <u>MAY 28, 2026</u> .					
LIMIT SET: A – ANNUAL					
DISINFECTION BYPRODUCTS					
Bromodichloromethane	µg/L	*	*	once/year	grab
Bromoform	µg/L	*	*	once/year	grab
Chlorodibromomethane	µg/L	*	*	once/year	grab
Chloroform	µg/L	*	*	once/year	grab
Total Trihalomethanes	µg/L	*	*	once/year	grab
METALS					
Aluminum, Total	µg/L	*	*	once/year	grab
MONITORING REPORTS SHALL BE SUBMITTED <u>ANNUALLY</u> ; THE FIRST REPORT IS DUE <u>JANUARY 28, 2027</u> .					

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (CONTINUED)

OUTFALL #001** wastewater		TABLE A-2 FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS			
The facility is authorized to discharge from outfall(s) as specified. The final effluent limitations shall become effective on April 1, 2036 and remain in effect until expiration of the permit. Discharges shall be controlled, limited, and monitored by the facility as specified below:					
EFFLUENT PARAMETERS	UNITS	FINAL EFFLUENT LIMITATIONS		MONITORING REQUIREMENTS	
		DAILY MAXIMUM	MONTHLY AVERAGE	MINIMUM MEASUREMENT FREQUENCY	SAMPLE TYPE
LIMIT SET: M - MONTHLY					
PHYSICAL & SOLIDS					
Flow	MGD	*	3.0	daily	24 hr. total
Visual Assessment ♣	pass/fail	“0” (no visual turbidity)		once/month	visual
Water Treatment Additives	tons	* total tons	*	daily	measured
Settleable Solids	mL/L/hr	*	*	once/month	composite ♠
Source Water Solids ♥	tons	* total tons	*	once/week *	calculation ♥
Total Suspended Solids	mg/L	*	*	once/week *	composite ♠
Total Suspended Solids	tons/day	* total tons	691.2	once/week *	calculated ♠♠
CONVENTIONAL					
Chlorine, Total Residual ‡	µg/L	209	104 (ML130)	once/week *	grab
pH †	SU	6.5 to 10.5	-	once/week *	grab
MONITORING REPORTS SHALL BE SUBMITTED <u>MONTHLY</u> ; THE FIRST REPORT IS DUE <u>MAY 28, 2036</u> .					
LIMIT SET: A – ANNUAL					
DISINFECTION BYPRODUCTS					
Bromodichloromethane	µg/L	*	*	once/year	grab
Bromoform	µg/L	*	*	once/year	grab
Chlorodibromomethane	µg/L	*	*	once/year	grab
Chloroform	µg/L	*	*	once/year	grab
Total Trihalomethanes	µg/L	*	*	once/year	grab
METALS					
Aluminum, Total	µg/L	*	*	once/year	grab
MONITORING REPORTS SHALL BE SUBMITTED <u>ANNUALLY</u> ; THE FIRST REPORT IS DUE <u>JANUARY 28, 2037</u> .					

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENT NOTES

- * Monitoring and reporting requirement only
- ** Table A-2 removes requirements for outfall #003; this outfall will be connected to outfall #001 before the end of the SOC.
- * Weekly monitoring is monitoring any one day between Monday and Sunday. For weeks spanning two months, only 1 sample is required. Only samples collected in the month may be averaged for the month. All data obtained must be uploaded as a DMR attachment per Standard Conditions. pH is not averaged; report the minimum and maximum.
- ‡ Chlorine, Total Residual. This permit contains a Total Residual Chlorine (TRC) limit (or monitoring). The effluent limit is below the minimum quantification level of the most sensitive EPA approved CLTRC methods. The department has determined the current acceptable minimum level (ML) for total residual chlorine is 130 µg/L when using the DPD Colorimetric Method #4500 – CL G. from Standard Methods for the Examination of Waters and Wastewater. The facility will conduct analyses in accordance with this method, or equivalent, and report actual analytical values. Measured and detection values greater than or equal to the minimum quantification level of 130 µg/L will be considered violations of the permit and non-detect values less than the minimum quantification level of 130 µg/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. The facility shall report less than “<” the value obtained on the meter for non-detections. The less than symbol shall not be used for detections. The facility shall not log the ML as the quantified value unless the quantified value is the ML. Do not chemically dechlorinate unless it is necessary to meet permit limits.
- † pH: the facility will report the minimum and maximum values; pH is not to be averaged.
- ♥ Source water solids discharged = incoming solids – finished water solids. The facility will report the total tons in the daily maximum column, and the average in the monthly average column.
- ** The permit specifies grab samples for solids, however, the facility should take modified composite samples if possible. Modified composite samples are composed of four or more aliquots of the wastewater collected throughout the day, and combined. This method of collecting samples will provide more representative samples for the discharges throughout the day. Automatic composite sampling is not possible until the facility completes the upgrades occurring over the next permit term.
- ♠ Composite Sampling: a 24-hour composite sample is composed of 48 aliquots (subsamples) collected at 30-minute intervals by an automatic sampling device. In the event that the automatic sampling device malfunctions, the facility shall contact the Regional Office for approval to use an alternative sample collection method and timetable for use, until the device is repaired or replaced.
- ♠♠ To calculate tons discharged, the facility will use the daily average flow in MGD * the concentration in mg/L * 8.34 to yield pounds. Divide the result in pounds by 2,000 to obtain the value in tons.
- ♣ Visual turbidity is a visual assessment of the outfall. Enter 0 for pass, and 1 for fail. Turbidity and/or color may cause a visible plume. This will be a visual assessment. If the discharge is visibly distinct from the receiving water, whether from turbidity, color, or a combination of both, the permittee will report a “1” for fail. Reporting a “0” for pass is only appropriate when the discharge is visually indistinguishable from the receiving waters, or if the totality of the discharge is below the water’s surface. No mixing zone is allowed for general criteria. Once the outfall has been moved to below the water surface this will complete the visual assessment criteria and the facility will report “0”.

B. SCHEDULE OF COMPLIANCE

Schedules of compliance are allowed per 40 CFR 122.47 and 10 CSR 20-7.031(11). The facility shall attain compliance with final effluent limitations established in this permit as soon as reasonably achievable:

1. The facility shall submit interim progress reports detailing progress made in attaining compliance with the final effluent limits every 12 months from effective date. The first report is due APRIL 28, 2027.
2. By effective date + 10 years, the facility shall attain compliance with the final effluent limits at outfall #001 for total residual chlorine. Outfall #003 will be connected to #001 by that time.
3. By effective date + 10 years, the facility shall switch from grab sampling to composite sampling for parameters identified in Table A-2.
4. By effective date + 10 years, the facility shall have relocated the pipe to below the water's surface. The visual assessment report limit of "0" (no visible difference) will ensure numeric compliance with the pipe relocation.

C. STANDARD CONDITIONS

In addition to specified conditions stated herein, this permit is subject to the attached Part I standard conditions dated August 1, 2014, and hereby incorporated as though fully set forth herein.

D. SPECIAL CONDITIONS

1. The BAT determination, pursuant to 40 CFR 125.3, for the solids discharges are these established Minimum Operational Best Management Practices (BAT Option 2).
 - (a) The basin blowdowns shall be staggered to attain near constant blowdown of solids. Solids discharge shall remain uniform throughout the day. Maintain programmable timers and computerization to continue this process automatically. Revise programming as needed to ensure blowdown volumes and pollutant loading are discharged mostly equally hourly each day. The facility shall optimize the control equipment to reduce solids discharges as much as possible.
 - (b) Monitor raw water hardness and alkalinity levels at least daily to determine the appropriate amount of softening chemicals needed to precipitate the required level of calcium and magnesium hardness for quality finished water. Over applying lime may result in pH or TSS exceedances
 - (c) Ensure lime slaking equipment is maintained to reduce lime use as much as practicable while still supplying quality finished water.
 - (d) Combine outfall #003 into outfall #001 as soon as practicable but no later than the effective date of this permit plus 10 years.
 - (e) Within 10 years of the effective date of this permit, the facility shall have new outfall for #001 extended into the Missouri River so that the effluent is not visible at the time of discharge, nor does effluent visibly surface. The minimum invert elevation for the relocated outfall pipe should be approximately 694.69 feet mean sea level (msl) or deeper.
 - (f) This permit does not authorize alum use.
 - (g) This permit does not authorize iron-based coagulant, such as ferric sulfate, use.
2. Spills, Overflows, and Other Unauthorized Discharges.
 - (a) Any spill, overflow, or other discharge(s) not specifically authorized are unauthorized discharges.
 - (b) If an unauthorized discharge cause or permit any contaminants to discharge or enter waters of the state, the unauthorized discharge must be reported to the regional office as soon as practicable but no more than 24 hours after the discovery of the discharge. If the spill or overflow needs to be reported after normal business hours or on the weekend, the facility must call the department's 24-hour spill line at 573-634-2436.
3. Electronic Discharge Monitoring Report (eDMR) Submission System. The NPDES Electronic Reporting Rule, 40 CFR Part 127, reporting of effluent monitoring data and any report required by the permit (unless specifically directed otherwise by the permit), shall be submitted via an electronic system to ensure timely, complete, accurate, and nationally consistent set of data for the NPDES program. The eDMR system is currently the only department-approved reporting method for this permit unless specified elsewhere in this permit, or a waiver is granted by the department. The facility must register in the department's eDMR system through the Missouri Gateway for Environmental Management (MoGEM) before the first report is due.

D. SPECIAL CONDITIONS (CONTINUED)

4. No stormwater exposure. The facility is subject to 10 CSR 20-6.200(2) and/or 40 CFR 122.26(b)(14); however, in accordance with 10 CSR 20-6.200(1)(C), the facility has demonstrated there is no industrial exposure for stormwater at this site. This facility must maintain the following to continue no exposure status under this permit.
- (a) Using, storing, or cleaning industrial machinery or equipment, and areas where residuals from using, storing, or cleaning industrial machinery or equipment exist and are exposed to stormwater.
 - (b) Materials or residuals on the ground or in stormwater inlets from spills or leaks.
 - (c) Materials or products from past industrial activity.
 - (d) Material handling equipment (except adequately maintained vehicles).
 - (e) Materials or products exposed during loading/unloading or transporting activities.
 - (f) Materials or products stored outdoors (except final products intended for outside use, e.g., new cars, where exposure to stormwater does not result in the discharge of pollutants).
 - (g) Materials contained in open, deteriorated, or leaking storage drums, barrels, tanks, or similar containers.
 - (h) Materials or products handled or stored on roads or railways owned or maintained by the facility.
 - (i) Waste material (except waste in covered, non-leaking containers, e.g., dumpsters).
 - (j) Particulate matter or visible deposits or residuals from roof stacks or vents not otherwise regulated (i.e., under an air quality control permit) and evident in the stormwater outflow.

If these conditions are not maintained, it is a violation of this permit. If the facility wishes to commence any of the above, a permit modification must be completed to activate appropriate stormwater conditions, which may include specific stormwater Best Management Practices, development and implementation of a Stormwater Pollution Prevention Plan, numeric benchmarks, or limits.

5. Site-wide minimum Best Management Practices (BMPs)

At a minimum, the facility shall adhere to the following:

- (a) Provide good housekeeping practices on the site to keep trash from entry into waters of the state. Dumpsters must remain closed when not in use.
- (b) Prevent the spillage or loss of fluids, oil, grease, fuel, etc. from vehicle maintenance, equipment cleaning, warehouse activities, and other areas, to prevent the contamination of stormwater from these substances.
- (c) Provide collection facilities and arrange for proper disposal of waste products including but not limited to petroleum waste products, and solvents.
- (d) Store all paint, solvents, petroleum products, petroleum waste products, and storage containers (such as drums, cans, or cartons) so these materials are not exposed to stormwater or provide other prescribed BMPs such as plastic lids and/or portable spill pans to prevent the commingling of stormwater with container contents. Commingled water may not be discharged under this permit. Provide spill prevention control, and/or management sufficient to prevent any spills of these pollutants from entering waters of the state. Any containment system used to implement this requirement shall be constructed of materials compatible with the substances contained and shall also prevent the contamination of groundwater. Spill records shall be retained on-site or readily accessible electronically.
- (e) The facility shall not discharge substances resulting from an on-site spill.
- (f) Ensure adequate provisions are provided to prevent surface water intrusion into the wastewater storage structure(s) and to divert stormwater runoff around the wastewater storage structure(s).
- (g) Provide sediment and erosion control sufficient to prevent or minimize sediment loss off the property, and to protect embankments from erosion.
- (h) Wash water for vehicles, building(s), or pavement must be handled in a no-discharge manner (infiltration, hauled off-site, etc.). Describe the no-discharge method used and include all pertinent information (quantity/frequency, soap use, effluent destination, BMPs, etc.) in the application for renewal. If wash water is not produced, note this instead.
- (i) If chlorinated, outdoor fire protection test water must be handled in a no-discharge manner (infiltration, hauled off-site, etc.) to protect receiving streams from chlorine toxicity. In the application for renewal, describe the no-discharge method used and include all pertinent information (quantity/frequency, source water, effluent destination (basin, MS4, field), and BMPs utilized). If outdoor fire protection test water is not produced or not chlorinated, note this instead in the renewal application.
- (j) The facility shall not apply salt and sand (traction control) in excess of what is required to maintain safe roadways and walkways. In the spring, after potential for additional snow or ice accumulation, if there is evidence of significant excess traction control materials, the facility shall remove excess sand or salt as soon as possible to minimize and control the discharge of salt and solids. At all times the facility shall use salt judiciously to minimize freshwater salinization.
- (k) Salt and sand shall be stored in a manner minimizing mobilization in stormwater (for example: under roof, in covered container, under tarp, etc.).

D. SPECIAL CONDITIONS (CONTINUED)

6. Reporting Non-Detects

- (a) Compliance analysis conducted by the facility, or any contracted laboratory shall be conducted in such a way the precision and accuracy of the analyzed result can be enumerated. See sufficiently sensitive test method requirements in Standard Conditions Part I, A, No. 4 regarding proper testing and detection limits used for sample analysis. For the purposes of this permit, the definitions in 40 CFR 136 apply.
- (b) Method detection limit (MDL) and laboratory-established reporting limit (RL) may be used interchangeably in this permit. The reporting limits established by the laboratory must be below the lowest effluent limits established for the specified parameter (including any parameter's future limit after an SOC) in the permit unless the permit provides for a minimum level (ML). A minimum level is a permit-established MDL, or refers to a sufficiently sensitive method.
- (c) The facility shall not report a sample result as "non-detect" without also reporting the MDL or ML. Reporting "non-detect" without also including the MDL or ML will be considered failure to report, which is a violation of this permit.
- (d) For the daily maximum, the facility shall report the highest value; if the highest value was a non-detect, use the less than "<" symbol and the highest of the MDL, RL, or ML. (e.g. <6).
- (e) When calculating monthly averages, one-half of the MDL, RL, or ML shall be used in place of any value(s) not detected. Where all data used in the average are below the MDL, RL, or ML, the highest MDL, RL, or ML shall be reported as "<#" for the average.

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

8. Report no discharge when a discharge does not occur during the monitoring period. It is a violation of this permit to report no-discharge when a discharge has occurred during the monitoring period.

9. All records required by this permit may be retained electronically. These records should be saved in a searchable format.

10. Changes in Discharges of Toxic Pollutant.

In addition to the reporting requirements under 40 CFR 122.41, all existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Director per 40 CFR 122.42(a)(1) and (2) as soon as recognizing:

- (a) An activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following notification levels:
 - (1) One hundred micrograms per liter (100 µg/L);
 - (2) Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile;
 - (3) Five hundred micrograms per liter (500 µg/L) for 2,4-dinitrophenol and for 2-methyl-4, 6-dinitrophenol;
 - (4) One milligram per liter (1 mg/L) for antimony;
 - (5) Five (5) times the maximum concentration value reported for the pollutant in the permit application in accordance with 40 CFR 122.21(g)(7); or
 - (6) The notification level established by the department in accordance with 40 CFR 122.44(f).
- (b) Any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
 - (1) Five hundred micrograms per liter (500 µg/L);
 - (2) One milligram per liter (1 mg/L) for antimony;
 - (3) Ten (10) times the maximum concentration value reported for the pollutant in the permit application in accordance with 40 CFR 122.21(g)(7).
 - (4) The level established by the Director in accordance with 40 CFR 122.44(f).
- (c) Authorization of new or expanded pollutant discharges may be required under a permit modification or renewal and may require an antidegradation review.

11. The full implementation of this operating permit, which includes implementation of any applicable schedules of compliance, shall constitute compliance with Sections 301, 302, 306, 307, and 403 of the federal Clean Water Act, except for standards imposed under Section 307 for toxic pollutants injurious to human health, and with equivalent provisions of the Missouri Clean Water Law, in accordance with Section 644.051.15 RSMo and CWA §402(k). This permit may be reopened and modified, or alternatively revoked and reissued to comply with any applicable effluent standard or limitation issued or approved under CWA §§301(b)(2)(C) and (D), §304(b)(2), and §307(a)(2), if the effluent standard or limitation so issued or approved contains different conditions or is otherwise more stringent than any effluent limitation in the permit, or controls any pollutant not already limited in the permit. This permit may be modified, revoked and reissued, or terminated for cause, including determination new pollutants found in the discharge not identified in the application for the new or revised permit. The filing of a request by the facility for a permit modification, termination, notice of planned changes, or anticipated non-compliance does not stay any permit condition.

D. SPECIAL CONDITIONS (CONTINUED)

12. Any discharges (or qualified activities such as land application) not expressly authorized in this permit, and not clearly disclosed in the permit application, cannot become authorized or shielded from liability under CWA section 402(k) or Section 644.051 RSMo, by disclosure to EPA, state, or local authorities after issuance of this permit via any means, including any other permit applications, funding applications, discharge monitoring reporting, or during an inspection. Submit a permit modification application, and an antidegradation determination if appropriate, to request authorization of new or expanded discharges, or new activities.
13. This permit does not authorize the facility to accept, treat, or discharge wastewater from other sources unless explicitly authorized herein. If the facility would like to accept, treat, or discharge wastewater from another activity or facility, the permit must be modified to include external wastewater pollutant sources in the permit.
14. Renewal Application Requirements.
 - (a) This facility shall submit an appropriate and complete application to the department in accordance with Standard Conditions Part I – General Conditions.
 - (b) Application materials shall include complete Form A and Form C. If the form names have changed, the facility must ensure they are submitting the correct forms as required by regulation.
 - (c) Sufficiently sensitive analytical methods must be used. A sufficiently sensitive method is one that can effectively describe the presence or absence of a pollutant at or below that pollutant's permit limit or water quality standard.
 - (d) The facility may use the electronic submission system to submit the application to the Program, if available.

E. NOTICE OF RIGHT TO APPEAL

If you were adversely affected by this decision, you may be entitled to pursue an appeal before the administrative hearing commission (AHC) pursuant to 621.250 and 644.051.12 RSMo. To appeal, you must file a petition with the AHC within thirty days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed; if it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the AHC. Any appeal shall be directed to:

Administrative Hearing Commission; U.S. Post Office Building, Third Floor
131 West High Street, P.O. Box 1557; Jefferson City, MO 65102-1557
Phone: 573-751-2422; Fax: 573-751-5018 Website: <https://ahc.mo.gov>

MISSOURI DEPARTMENT OF NATURAL RESOURCES
FACT SHEET
FOR THE PURPOSE OF RENEWAL OF
MO-0003646
COURTNEY BEND DWTP (INDEPENDENCE)

The Federal Water Pollution Control Act (Clean Water Act (CWA) §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 (§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 644 RSMo as amended). MSOPs may also cover underground injection, non-discharging facilities, and land application facilities. Permits are issued for a period of five (5) years unless otherwise specified for less. 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 applicable regulations, rationale for the development of limitations and conditions, and the public participation process for the Missouri State Operating Permit (MSOP or permit) listed below. A factsheet is not an enforceable part of a permit.

PART I. FACILITY INFORMATION

FACILITY DESCRIPTION

This facility operates to treat and distribute finished potable water to the public. The facility was constructed in 1956 and is a groundwater softening plant rated for 48 MGD production capacity. The plant withdraws water from the Missouri River valley alluvial aquifer via 44 wells located within an approximately half-mile radius of the plant. The wells are not under the direct influence of the river and all wells are operational when the plant is at its rated capacity. About half of the water produced at the plant is wholesaled to nearby customers, affecting about 250,000 people.

Raw water is pumped from the well field to one of four splitter tanks where the cascading effect of the water over a weir removes naturally occurring hydrogen sulfide gas (H₂S) via aeration. The splitter tanks direct flow into one of eight contact basins where lime is added to soften the water. After water exits the contact basins, chlorine followed by ammonia are added for disinfection prior to water entering one of six settling basins. The settling basins provide contact time for disinfection as well as additional settling time for any solids carried over from the contact basins. Next, water enters one of 14 rapid sand filters. Upstream of the filters, sodium hexametaphosphate is added to keep calcium from plugging the filter sand. After filtration, additional chlorine is added for disinfection prior to water entering an underground clearwell. At the exit of the clearwell, transfer pumps pump finished water into a 2.5 MGD treated water reservoir at the plant. Lastly, high service pumps receive water from the reservoir and pump to distribution.

The plant has two existing outfalls to the Missouri River, which are located at approximately river mile marker 353.2. Outfall #001 consists of contact basin and settling basin sludge blowdown. Blowdown from all basins flow to a simplex submersible pump station (outfall pump vault) and is pumped through a 6" diameter forcemain to the Missouri River. There are a total of 14 basins that blowdown (eight contact basins and six settling basins) and each basin is scheduled to blowdown at least every other hour, although some basins blowdown every hour. Blowdowns last for between 2-3 minutes and are controlled from electrically-actuated valves on automatic timers. Thus, on average there are a minimum of seven basins being blown down every hour, which equates to at least 14-21 minutes of blowdown being directed to the outfall every hour. With blowdown events being rotated among all basins regularly, the result is a near continuous discharge to the river. This facility does not use coagulants. Outfall #001 has a design average flow of 2.5 MGD.

PERMITTED FEATURES TABLE

OUTFALL	AVERAGE FLOW	DESIGN FLOW	TREATMENT LEVEL	EFFLUENT TYPE
#001	1.6 MGD	3.0 MGD*	settling, chlorination, dechlorination**	Reject water and solids from the drinking water treatment process, and continuous chlorine analyzer wastewater.
#003	0.16 MGD	0.5 MGD		

Outfall #003 is being connected with outfall #001 within 10 years. Outfall #003 is approximately 10% of the total average flow of the facility; with outfall #001 being 90% of the total average flow. When discharges ceases from outfall #003, the facility may request a permit modification to have outfall #003 removed, or use NODI code "no discharge" for the remainder of the permit term.

* The design flow of outfall #001 accounts for all of the outfalls together. The conditions in this permit are based on the combination of outfalls #001 and #003 because they flow to the same river.

** Dechlorination will be installed but is not currently installed. Construction permits are not required for installation of dechlorination equipment, and construction permits are generally not required for industrial facilities unless the facility intends to construct or modify an earthen basin.

Items listed in the facility (or outfall) description, applicable to the operation, maintenance, control, and resultant effluent quality are required to be enumerated in the facility description. The facility description ensures the facility continues to operate the wastewater (or stormwater) controls listed in the permit to preserve and maintain the effluent quality pursuant to 40 CFR 122.21(e). Any planned changes to the facility (which changes the facility or outfall description) are required to be reported to the department pursuant to 40 CFR 122.41(l)(1)(ii). If the facility does not or cannot use all of their disclosed treatment devices, this is considered bypassing pursuant to 40 CFR 122.41(m) in the case of wastewater, and BMP disruption in the case of stormwater.



The sampling structure is not yet constructed; this is part of the requirements for the schedule of compliance.

APPLICATION

The application was received March 31, 2010 and was updated September 5, 2018. The facility submitted a Best Professional Judgment Study April 29, 2024, and a pH mixing study was approved March 5, 2025. The application was verified to remain accurate of the actual operating conditions of the facility in March 2025. Prior to public notice, the facility has reviewed the permit draft and coordinated with the department ensuring that the draft permit is representative of the facility operations and the application received for this facility. The BPJ study was reviewed. The technology assessment for specific parameters is found in Part IV.

CONTINUING AUTHORITY

Pursuant to 10 CSR 20-6.010(2)(A), the department has received the appropriate continuing authority authorized signature from the facility. Pursuant to 10 CSR 20-6.010(2)(B)4, this facility is a Level 4 Authority.

- ✓ Pursuant to 10 CSR 20-6.010(2)(D), the facility provided a written statement from the higher-level authority declining management of the facility under 10 CSR 20-6.010(2)(C)1.

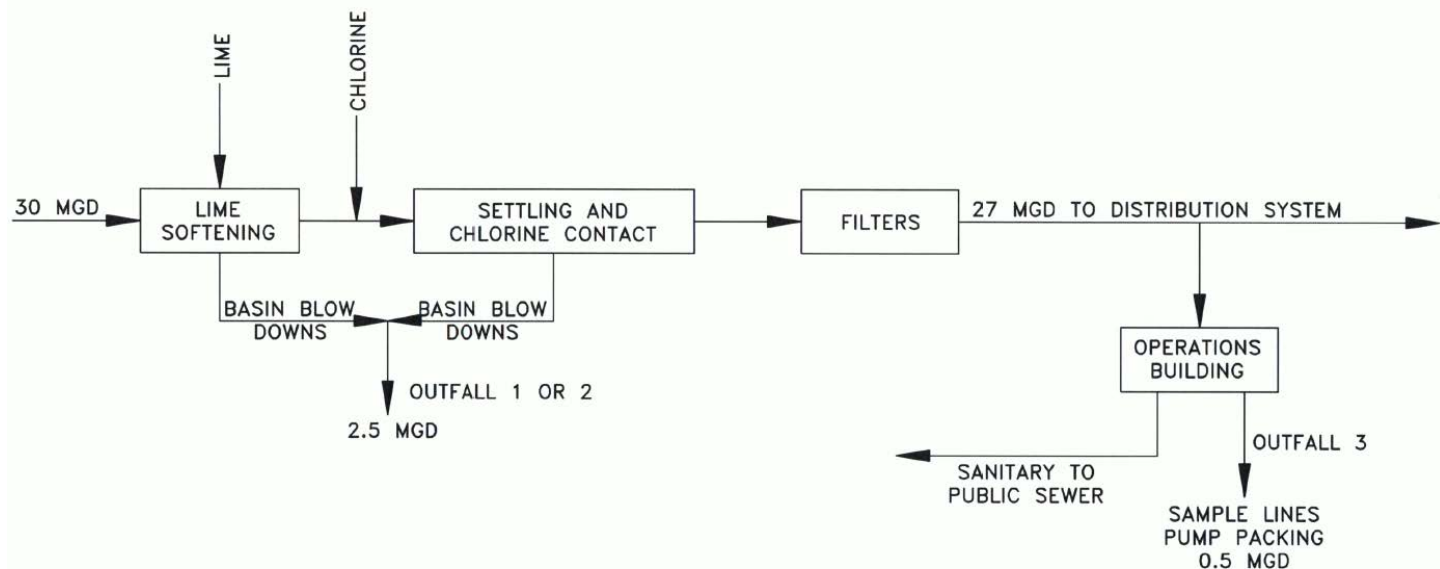
FACILITY PERFORMANCE HISTORY & COMMENTS

The permit was last issued July 26, 1991. The electronic discharge monitoring reports were reviewed for the last five years. No concerns were noted. This facility has not been inspected. This facility was rated as a Major facility on March 26, 2025; see Appendix A.

OTHER ENVIRONMENTAL PERMITS

In accordance with 40 CFR 122.21(f)(6), the department evaluated other environmental permits currently held by this facility. This facility has a general NPDES permit, MOG640177; on March 10, 2025, the facility indicated they did not wish to combine the permits. This facility distributes finished drinking water under MO1010399 as Independence PWS. This facility does not require a certified wastewater operator per 10 CSR 20-9 because the conditions do not apply to this facility; however, a certified drinking water operator is required under rules outside the scope of this permit.

WATER BALANCE DIAGRAM



The facility no longer uses outfall #002, that has been combined into outfall #001.

According to the latest consumer confidence report, the facility manufactures 48 MG of finished potable water daily.

PART II. RECEIVING WATERBODY INFORMATION**RECEIVING WATERBODY TABLE:**

WATERBODY NAME	CLASS	WBID	DESIGNATED USES	DISTANCE TO SEGMENT	12-DIGIT HUC
Missouri River	P	356	AQL(WWH), DWS, HHP, IND, IRR, LWP, SCR, WBC-B	0.0 mi	103001010305: Rock Creek-Missouri River

Classes are representations of hydrologic flow volume or lake basin size per 10 CSR 20-7.031(1)(E).

Designated uses are described in 10 CSR 20-7.031(1)(F).

WBID: Waterbody Identification Number per 10 CSR 20-7.031(1)(Q) and (S)

HUC: Hydrologic Unit Code <https://water.usgs.gov/GIS/huc.html>

Water Quality Standards Search https://apps5.mo.gov/mocwis_public/waterQualityStandardsSearch.do

EXISTING WATER QUALITY & IMPAIRMENTS

The receiving waterbody(s) segment(s), upstream, and downstream confluence water quality was reviewed. The USGS

<https://waterdata.usgs.gov/nwis/sw> or the department's quality data database was reviewed.

https://apps5.mo.gov/mocwis_public/wqa/waterbodySearch and <https://apps5.mo.gov/wqa/> Impaired waterbodies which may be impacted by discharges from this facility were determined. Impairments include waterbodies on the 305(b) or 303(d) list and those waterbodies or watersheds under a TMDL. <https://dnr.mo.gov/water/what-were-doing/water-planning/quality-standards-impaired-waters-total-maximum-daily-loads/tmdls> Section 303(d) of the federal Clean Water Act requires each state identify waters not meeting water quality standards and for which adequate water pollution controls have not been required. <https://dnr.mo.gov/water/what-were-doing/water-planning/quality-standards-impaired-waters-total-maximum-daily-loads/impaired-waters> Water quality standards protect beneficial uses of water provided in 10 CSR 20-7.031. The 303(d) list helps state and federal agencies keep track of impaired waters not addressed by normal water pollution control programs. A TMDL is a calculation of the maximum amount of a given pollutant a water body can absorb before its water quality is affected; hence, the purpose of a TMDL is to determine the pollutant loading a specific waterbody can assimilate without exceeding water quality standards.

- ✓ 2002 The Missouri River has a 2022 EPA approved TMDL for Chlordane & PCB; and is on the Missouri 303(d) list for *Escherichia coli* in water. The source of the *E. coli* impairment was listed as municipal point source discharges and nonpoint sources. This facility is not considered to be a source of or has the potential to contribute to the above listed pollutants. Antibacksliding requirements pursuant to 33 USC 1342(o)(1) referring to 33 USC 1313 (d)(4)(A), requires the previous WQBEL limits be continued because the receiving stream is impaired.

WATERBODY MIXING CONSIDERATIONS

For outfall #001 identified below, mixing is afforded, see low flow values calculated for the receiving stream below. For information how this regulation is used in determining effluent limits with or without mixing, see WASTELOAD ALLOCATION in Part III. If the base stream flow is above 0.1 cfs, mixing may be applied if 1) zones of passage are present, 2) mixing velocities are sufficient and stream bank configuration allows, 3) the aquatic life support system is maintained, 4) mixing zones do not overlap, 5) there are no drinking water intakes in the vicinity downstream, 6) the stream or lake has available pollutant loading to be allocated, and 7) downstream uses are protected.

LOW-FLOW VALUES AND MIXING CONSIDERATIONS:

Receiving stream	Low-Flow Values (CFS)*			Zone of Initial Dilution (CFS)			Mixing Zone (CFS)		
	1Q10	7Q10	30Q10	[10 CSR 20-7.031(5)(A)4.B.(II)(b)]			[10 CSR 20-7.031(5)(A)4.B.(II)(a)]		
Missouri River (P)	18,157	19,271	20,433	46.4	46.4	46.4	4,539.3	4,817.8	5,108.3

Data were obtained for 20 years and were calculated using a department developed spreadsheet (available upon request).

PART III. RATIONALE AND DERIVATION OF PERMIT CONDITIONS

ANTIBACKSLIDING

Federal antibacksliding requirements per CWA §402(o) and 40 CFR § 122.44(l) [https://www.ecfr.gov/current/title-40/chapter-I/subchapter-D/part-122#p-122.44\(l\)](https://www.ecfr.gov/current/title-40/chapter-I/subchapter-D/part-122#p-122.44(l)) generally prohibit a reissued permit from containing effluent limitations that are less stringent than the previous permit, with some exceptions. All renewed permits are analyzed for evidence of backsliding. There are several express statutory exceptions to the antibacksliding requirements, located in CWA § 402(o)(2) and 40 CFR 122.44(l). Parameters are discussed individually in Part IV of the fact sheet.

- ✓ This permit is more stringent than the previously issued permit for all parameters.

ANTIDEGRADATION REVIEW

Discharges with new, altered, or expanding flows, the department is to document, by means of antidegradation review, if the use of a water body's available assimilative capacity is justified. See <https://dnr.mo.gov/document-search/antidegradation-implementation-procedure>. The prescribed minimum BMPs required in the permit for stormwater are developed by the department pursuant to 10 CSR 20-7.031(3), and BMP use for stormwater discharges is authorized under 40 CFR 122.44(k)(2). The facility must pay for the department to complete the review. 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. Per 10 CSR 20-7.015(4)(A), new discharges to losing streams shall be permitted only after other alternatives including land application, discharges to a gaining stream, or connection to a regional wastewater treatment facility have been evaluated and determined to be unacceptable for environmental and/or economic reasons.

- ✓ Not applicable; the facility has not submitted information proposing new or expanded discharge; no further degradation proposed therefore no further review necessary. Combining outfalls #003 into #001 does not require an antidegradation review because the flows both go to the same river and have both been permitted in the past.
- ✓ Extending the pipe into the Missouri River does not require Antidegradation as the discharge is already to the Missouri River and construction is extending the pipe further into the river at a similar location.

BEST MANAGEMENT PRACTICES (BMPs)

Minimum site-wide best management practices (BMPs) are established in this permit to ensure all facilities are managing their sites equally to protect waters of the state from certain activities which could cause negative effects in receiving water bodies. These best management practices are not specifically included only for stormwater purposes. These practices are minimum requirements for all industrial sites to protect waters of the state. If the minimum best management practices are not followed, the facility may violate general criteria per 10 CSR 20-7.031(4). Statutes are applicable to all permitted facilities in the state; therefore pollutants cannot be released unless in accordance with Missouri Clean Water Law. The prescribed minimum BMPs required in the permit are developed by the department pursuant to 10 CSR 20-7.031(3), and BMPs use is authorized under 40 CFR 122.44(k)(2).

CLOSURE

To properly decontaminate and close a wastewater storage structure, treatment structure, lagoon, basin, or device, the facility must draft a complete closure plan, and include the Closure Request Form #2512 <https://dnr.mo.gov/document-search/facility-closure-request-form-mo-780-2512>. The publication, Wastewater Treatment Plant Closure - PUB2568 found at <https://dnr.mo.gov/print/document-search/pub2568> may be helpful to develop the closure plan. The regional office will then approve the closure plan, and provide authorization to begin the work. The regional office contact information can be found here: <https://dnr.mo.gov/about-us/division-environmental-quality/regional-office>

COST ANALYSIS FOR COMPLIANCE (CAFCom)

Pursuant to 644.145 RSMo, when incorporating a new requirement for discharges from publicly owned facilities, or when enforcing provisions of this chapter or the CWA, pertaining to any portion of a publicly owned facility, the department 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 CWA. This process is completed through a CAFCom. Permits not including new requirements may be deemed affordable.

- ✓ The facility waived completion of a CAFCom.

CHANGES IN DISCHARGES OF TOXIC POLLUTANT

This special condition reiterates the federal rules found in 40 CFR 122.44(f) for technology treatments and 122.42(a)(1) for all other toxic substances. In these rules, the facility is required to report changes in amounts of toxic substances discharged. Toxic substances are defined in 40 CFR 122.2 as any pollutant listed as toxic under section 307(a)(1) or, in the case of "sludge use or disposal practices," any pollutant identified in regulations implementing section 405(d) of the CWA. Section 307 of the clean water act then refers to those parameters listed in 40 CFR 401.15 and any other toxic parameter the department determines is applicable for reporting under these rules in the permit. The facility must also consider any other toxic pollutant in the discharge as reportable under this condition and must report all increases to the department as soon as discovered in the effluent. The department may open the permit to implement any required effluent limits pursuant to CWA §402(k) where sufficient data was not supplied within the application but

was supplied at a later date by either the facility or other resource determined to be representative of the discharge, such as sampling by department personnel.

COMPLIANCE AND ENFORCEMENT

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

✓ Not applicable; the facility is not currently under Water Protection Program enforcement action.

DISCHARGE MONITORING REPORTING – ELECTRONIC (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 requiring electronic data reporting. To comply with the federal rule, the department is requiring all facilities to submit discharge monitoring data and reports online. To review historical data, the department's database has a publicly facing search engine, available at https://apps5.mo.gov/mocwis_public/dmrDisclaimer.do

Registration and other information regarding MoGEM can be found at <https://dnr.mo.gov/mogem>. Information about the eDMR system can be found at <https://dnr.mo.gov/env/wpp/edmr.htm>. The first user shall register as an Organization Official and the association to the facility must be approved by the department. To access the eDMR system, use: <https://apps5.mo.gov/mogems/welcome.action> For assistance using the eDMR system, contact edmr@dnr.mo.gov or call 855-789-3889 or 573-526-2082. To assist the facility in entering data into the eDMR system, the permit describes limit sets designators in each table in Part A of the permit. Facility personnel will use these identifiers to ensure data entry is being completed appropriately. For example, M for monthly, Q for quarterly, A for annual, and others as identified.

DOMESTIC WASTEWATER, SLUDGE, AND BIOSOLIDS

Domestic wastewater is defined as wastewater originating primarily from the sanitary conveyances of bathrooms and kitchens. Domestic wastewater excludes stormwater, wash water, animal waste, process, or ancillary wastewater.

✓ Not applicable; this facility discharges domestic wastewater to an off-site permitted wastewater treatment facility (POTW).

Sewage sludge is solid, semi-solid, 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 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. Biosolids are solid materials resulting from domestic wastewater treatment meeting federal and state criteria for productive use (i.e. fertilizer) and after having pathogens removed.

✓ Not applicable; the facility does not manage domestic wastewater on-site.

EFFLUENT LIMITATIONS

Two general types of effluent limitations, technology-based effluent limits (TBELs) and water quality based effluent limits (WQBELs) are reviewed. Permits are required to establish the most stringent or most protective limit per 10 CSR 20-7.015(9)(A) and 40 CFR 122.44(b)(1). The department has regulatory authorization to implement limits based on best professional judgment per 10 CSR 20-7.015(9)(I)1. Effluent limitations derived and established for this permit are based on current operations of the facility. Any flow through the outfall is considered a discharge and must be sampled and reported per permit requirements. Daily maximums and monthly averages are required for continuous discharges per 40 CFR 122.45(d)(1). Weekly limits are not available for non-POTWs.

EXCLUSIONS

The authorizations of this permit are limited to The Clean Water Act, Missouri Clean Water Law, and implementing regulations in 40 CFR and Title 10 of Missouri State Regulations; and for UIC, the Safe Drinking Water Act. Historically, permits have listed activities or discharges which were not authorized under this permit. However, permits are meant to be positive declarations of allowances under the regulatory framework. While historic permits have listed numerous statements such as "This permit does not cover..." those statements have been removed. While they have been removed, this is not considered backsliding, because those prohibitive statements were not limiting the facility to be covered under other permits or via other means. The MSOP is meant to be permissive and appropriately restrictive for the only the activities disclosed in the permit application and during permit renewal or modification. If entities are allowed to perform other activities under separate regulations or other co-located permits, this permit should not restrict those activities. Historically listed were statements such as 1) land disturbance activities; 2) fertilizer products receiving another exemption; 3) stream channel or wetland alterations; or 4) the placement of fill materials in flood plains, placement of solid materials into any waterway, the obstruction of stream flow, or changing the channel of a defined drainage course. While wetland alterations, placement of fill in flood plains or waterways, or changing the course of a stream are prohibited until authorized, those authorizations are found under other authorities, not the MSOP. Other activities that may be authorized by rule include hydrostatic test water, and the exclusions from permitting listed in 10 CSR 20-6.010(1)(B).

FEDERAL EFFLUENT LIMITATION GUIDELINES

Effluent Limitation Guidelines (ELGs) are found at 40 CFR 400-499. <https://www.ecfr.gov/current/title-40/chapter-I/subchapter-N> These are limitations established by the EPA based on the type of activities a facility is conducting. Most ELGs are for process wastewater and some address stormwater. Effluent guidelines are not always established for every pollutant present in a point source discharge. In many instances, EPA promulgates effluent guidelines for an indicator pollutant. Industrial facilities complying with the effluent guidelines for the indicator pollutant will also control other pollutants (e.g. pollutants with a similar chemical structure). For example, EPA may choose to regulate only one of several metals present in the effluent from an industrial category, and compliance with the effluent guidelines will ensure similar metals present in the discharge are adequately controlled. All are technology-based limitations which must be met by the applicable facility at all times. If Reasonable Potential is established for any particular parameter, and water-quality based effluent limits are more protective of the receiving water's quality, the WQBEL will be used as the limiting factor in accordance with 40 CFR 122.44(d) and 10 CSR 20-7.015(9)(A).

✓ The facility does not have an associated ELG.

FEES

Failure to pay fees associated with this permit is a violation of the Missouri Clean Water Law (644.055 RSMo). Fee amounts are listed in 644.052 and 644.053 RSMo. Fees are due pursuant to 644.054 RSMo, which is each annual anniversary date of initial permit issuance until the permit is terminated. Fees are due the same month each year, regardless of whether a renewal has occurred or is occurring that year.

FIRE PROTECTION (HYDRANT) TESTING WATER (OUTDOOR)

The regulatory discharge permitting exclusion allowance only extends to actual fire-fighting activities. These regulations are only found in 10 CSR 20-6.200(1)(D). Hydrant testing wastewater can be considered a water contaminant source pursuant to 644.016(29), dependent on the management strategies, which is why the department asks for additional information about these wastewaters. The Federal and State requirements necessitate a reasonable potential determination for all wastewater; hydrant testing is a type of wastewater with intermittent discharge, and is not considered an emergency. Information regarding fire protection is included under illicit discharges for MS4s, and no other regulation allows for any further exemptions, unless the department makes a finding of de minimis. Missouri Clean Water Law requires the department to perform due diligence for all wastewater discharges and all permits (general and site specific). Permit conditions now have specific requirements to manage outdoor hydrant testing logically; and relevant to the pollutants contained in the fire protection testing wastewater. If the facility follows the appropriate management strategy, the permit will cover the discharges. If the facility does not use chlorinated water in the fire protection system, then the facility may allow the wastewater to directly enter a stream or storm collection system, given that sufficient energy dissipation strategies are followed to ensure that solids from soils or other sources are not being entrained in the wastewater. For facilities with chlorinated fire protection testing water, the facility must utilize a strategy to ensure chlorinated water is not being introduced into the waterbody. This could be by allowing the water to soak into the surrounding vegetation, or by retaining the water through a permanent or temporary berm for sufficient time to infiltrate, or other appropriate BMP. Other management strategies exist, and it is the responsibility of the facility to operate all systems to minimize pollution to waters of the state and United States.

GENERAL CRITERIA CONSIDERATIONS

In accordance with 40 CFR 122.44(d)(1), effluent limitations shall be placed into permits for pollutants determined to cause, have reasonable potential to cause, or to contribute to, an excursion above any water quality standard, including narrative water quality criteria. In order to comply with this regulation, permit decisions were made by completing a reasonable potential determination on whether discharges have reasonable potential to cause or contribute to an excursion of the general criteria listed in 10 CSR 20-7.031(4). See Part III REASONABLE POTENTIAL for more information. In instances where reasonable potential exists, the permit includes limitations to address the reasonable potential. In discharges where reasonable potential does not exist, the permit may include monitoring to later determine the discharge's potential to impact the narrative criteria. Part I §D – Administrative Requirements of Standard Conditions included in this permit state it shall be unlawful for any person to cause or allow any discharge of water contaminants from any water contaminant or point source located in Missouri in violation of the Missouri Clean Water Law or any standard, rule, or regulation promulgated by the commission. See Part IV for specific determinations.

GOOD HOUSEKEEPING PRACTICES

Good housekeeping is a practical, cost-effective way to maintain a clean and orderly facility to prevent potential pollution sources from coming into contact with stormwater. It includes establishing protocols to reduce the possibility of mishandling materials or equipment and employee training. Common areas where good housekeeping practices should be followed include trash containers and adjacent areas, material storage areas, vehicle and equipment maintenance areas, and loading docks. Good housekeeping practices must include a schedule for regular pickup and disposal of garbage and waste materials and routine inspections of drums, tanks, and containers for leaks and structural conditions. Practices also include containing and covering garbage, waste materials, and debris. Involving employees in routine monitoring of housekeeping practices is an effective means of ensuring the continued implementation of these measures.

Specific good housekeeping may include:

- ◆ Spill and overflow protection under chemical or fuel connectors to contain spillage at liquid storage tanks

- ◆ Load covers on residue hauling vehicles and ensure gates on trucks are sealed and the truck body is in good condition
- ◆ Containment curbs around loading/unloading areas or tanks
- ◆ Techniques to reduce solids residue which may be tracked on to access roads traveled by residue trucks or residue handling vehicles.
- ◆ Techniques to reduce solid residue on exit roads leading into and out of residue handling areas

Where feasible, minimizing exposure of potential pollutant sources to precipitation is an important control option. Minimizing exposure prevents pollutants, including debris, from coming into contact with precipitation and can reduce the need for BMPs to treat contaminated stormwater runoff. It can also prevent debris from being picked up by stormwater and carried into drains and surface waters. Examples of BMPs for exposure minimization include covering materials or activities with temporary structures (e.g., tarps) when wet weather is expected or moving materials or activities to existing or new permanent structures (e.g., buildings, silos, sheds). Even the simple practice of keeping a dumpster lid closed can be a very effective pollution prevention measure. For erosion and sediment control, BMPs must be selected and implemented to limit erosion on areas of your site that, due to topography, activities, soils, cover, materials, or other factors, are likely to experience erosion. Erosion control BMPs such as seeding, mulching, and sodding prevent soil from becoming dislodged and should be considered first. Sediment control BMPs such as silt fences, sediment ponds, and stabilized entrances trap sediment after it has eroded. Sediment control BMPs should be used to back-up erosion control BMPs.

GROUNDWATER MONITORING

Groundwater is a water of the state and is subject to regulations at 10 CSR 20-7.015(7) and 10 CSR 20-7.031(6) and must be protected accordingly.

- ✓ This facility is not required to monitor groundwater for the water protection program as there are no sub-surface discharges.

ICE-MELT PRODUCT REMOVAL

The department is authorized to require BMPs for facilities per 40 CFR 122.44(k)(2). The facility must apply traction control materials judiciously. The facility should, to the extent practicable, remove large pieces of salt as soon as possible. After winter weather has ceased for the year, the facility should inspect all low-lying areas for extra salt and sand and remove these as soon as possible. Salt applied to large areas has the potential to cause freshwater salinization which could result in a fish kill of sensitive species. To reduce potential for solids entering a stream, sand or other traction control materials will need to be evaluated against the probability that these materials could cause general criteria violations of solids and bottom deposits per 10 CSR 20-7.031(4).

LAND DISTURBANCE

Land disturbance, sometimes called construction activities, are actions which cause disturbance of the root layer or soil; these include clearing, grading, and excavating of the land. 40 CFR 122.26(b)(14) and 10 CSR 20-6.200(3) requires permit coverage for these activities. Coverage is not required for facilities when only providing maintenance of original line and grade, hydraulic capacity, or to continue the original purpose of the facility.

- ✓ Not applicable; this permit does not provide coverage for land disturbance activities. The facility may obtain a separate land disturbance permit (MORA) online at <https://dnr.mo.gov/water/business-industry-other-entities/permits-certification-engineering-fees/stormwater/construction-land-disturbance> MORA permits may not cover disturbance of contaminated soils, however, site specific permits such as this one can be modified to include appropriate controls for land disturbance of contaminated soils by adding site-specific BMP requirements and additional outfalls.

MAJOR WATER USER

Any surface or groundwater user with a water source and the equipment necessary to withdraw or divert 100,000 gallons (or 70 gallons per minute) or more per day combined from all sources from any stream, river, lake, well, spring, or other water source is considered a major water user in Missouri. <https://dnr.mo.gov/water/business-industry-other-entities/reporting/major-water-users> All major water users are required by 256.400 RSMo to register water use annually. <https://dnr.mo.gov/document-search/frequently-asked-major-water-user-questions-pub2236/pub2236>

METALS

Effluent limitations for total recoverable metals are developed using methods and procedures outlined in the *Technical Support Document For Water Quality-based Toxic Controls* (EPA/505/2-90-001) and *The Metals Translator: Guidance For Calculating a Total Recoverable Permit Limit From a Dissolved Criterion* (EPA 823-B-96-007). "Aquatic Life Protection" in 10 CSR 20-7.031 Tables A1 and A2, and general criteria protections in 10 CSR 20-7.031(4). The hardness value used for hardness-dependent metals calculations is typically based on the ecoregion's 50th percentile (also known as the median) per 10 CSR 20-7.015(1)(CC), and is reported in the calculations. Per a memorandum dated August 6, 2019, the Director has determined limit derivation must use the median of the Level III Ecoregion to calculate permit limits, or site specific data if determined applicable. Additional use criterion (HHP, DWS, GRW, IRR, or LWW) may also be used, as applicable, to determine the most protective effluent limit for the receiving waterbody's class and uses. HHP, DWS, GRW, IRR, or LWW do not take hardness into account.

MODIFICATION REQUESTS

Facilities have the option to request a permit modification from the department at any time under RSMo 644.052.8. Requests must be submitted to the Water Protection Program with the appropriate forms and fees paid per 10 CSR 20-6.011. It is recommended facilities contact the program early so the correct forms and fees are submitted, and the modification request can be completed in a timely fashion. Minor modifications, found in 40 CFR 122.63, are processed without the need for a public comment period. Major modifications, those requests not explicitly fitting under 40 CFR 122.63, do require a public notice period. Modifications to permits must be completed when: a new pollutant is found in the discharge; operational or functional changes occur which affect the technology, function, or outcome of treatment; the facility desires alternate numeric benchmarks; or other changes are needed to the permit.

Modifications are not required when utilizing or changing additives in accordance with the publication <https://dnr.mo.gov/document-search/additive-usage-wastewater-treatment-facilities-pub2653/pub2653> nor are required when a temporary change or provisional discharge has been authorized by the regional office. While provisional discharges may be authorized by the regional office, they will not be granted for more than the time necessary for the facility to obtain an official modification from the Water Protection Program. Temporary provisional discharges due to weather events or other unforeseen circumstances may or may not necessitate a permit modification. The facility may ask for a Compliance Assistance Visit (CAV) from the regional office to assist in the decision-making process; CAVs are provided free to the permitted entity.

MUNICIPAL SEPARATE STORM SEWER SYSTEMS (MS4)

This permit allows discharge to waters of the state. The discharges this permit allows may flow into and through a city's stormwater collection system. Per 40 CFR 122.26(a)(4), any facility discharging stormwater associated with industrial activity to an MS4 shall submit no later than 180 days prior to commencing such discharge, to the MS4 receiving the discharge: the name of the facility; a contact person and phone number; the location of the discharge; a description, including Standard Industrial Classification, which best reflects the principal products or services provided by each facility; and any/all existing NPDES permit number(s).

Regulated MS4s are managed by public entities, cities, municipalities, or counties. Phase I MS4s are Kansas City, Independence, and Springfield. Phase II MS4s are determined by population or location in an urbanized area. Regulated MS4s are required to develop and maintain a stormwater management program. These programs have requirements for developing and implementing a plan to detect and eliminate unapproved discharges to the storm sewer system. Phase I MS4s also maintain oversight programs for industrial and high-risk runoff. Regulated MS4s may keep a list of all of the other regulated dischargers (wastewater and stormwater) flowing through their system. Regulated MS4 operators may request to inspect facilities discharging into their system; a list of regulated MS4s can be viewed at <https://dnr.mo.gov/document-search/missouri-regulated-municipal-separate-storm-sewer-systems-ms4s> or at https://apps5.mo.gov/mocwis_public/permitSearch.do to determine if this facility needs to contact a local stormwater authority.

NUTRIENT MONITORING

10 CSR 20-7.015(9)(D)8 requires the department to determine if a facility is a typical discharger of nutrients.

- ✓ WTP do not typically discharge nutrients in amounts greater than 1.0 mg/L nor are they reducing nutrients. The facility utilizes a phosphorus-based treatment chemical in the treatment plant but data show that TP discharge is minimal (about 0.1 mg/L) therefore nutrient monitoring is not required.
- ✓ Ammonia is added as a water treatment chemical; however, the ammonia is bound with chlorine to form chloramines. There is no RP and data show that ammonia receiving water concentration is about 0.01 mg/L. Water treatment disinfection byproducts are measured instead.

Water quality standards per 10 CSR 20-7.031(5)(N) describe nutrient criteria requirements assigned to lakes (which include reservoirs) in Missouri, equal to or greater than 10 acres during normal pool conditions. The department's Nutrient Criteria Implementation Plan (NCIP) may be reviewed at: <https://dnr.mo.gov/document-search/nutrient-criteria-implementation-plan-july-27-2018> Discharges of wastewater in to lakes or lake watersheds designated as L1 (drinking water use) are prohibited per 10 CSR 20-7.015(3)(C).

- ✓ Not applicable; this facility does not discharge in a lake watershed.

OPERATOR CERTIFICATION REQUIREMENTS

Operators or supervisors of operations at regulated domestic wastewater treatment facilities shall be certified in accordance with 10 CSR 20-9 and any other applicable state law or regulation.

- ✓ Not applicable; this facility is not a domestic wastewater facility. This facility does not require a certified wastewater operator per 10 CSR 20-9 because the conditions do not apply to this facility; although a certified drinking water operator is required under rules outside the scope of this permit.

PERMIT SHIELD

The permit shield provision of the Clean Water Act (Section 402(k)) and Missouri Clean Water Law (644.051.22 RSMo) provides that when a permit holder is in compliance with its NPDES permit or MSOP, it is effectively in compliance with certain sections of the Clean Water Act, and equivalent sections of the Missouri Clean Water Law. In general, the permit shield is a legal defense against

certain enforcement actions but is only available when the facility is in compliance with its permit and satisfies other specific conditions, including having completely disclosed all discharges and all facility processes and activities to the department at time of application. It is the facility's responsibility to ensure that all potential pollutants, waste streams, discharges, and activities, including wastewater land application, storage, and treatment areas, are all fully disclosed to the department at the time of application or during the draft permit review process. Previous permit applications are not necessarily evaluated or considered during permit renewal actions. All relevant disclosures must be provided with each permit application, including renewal applications, even when the same information was previously disclosed in a past permit application. Subsequent requests for authorization to discharge additional pollutants, expanded or newly disclosed flows, or for authorization for previously unpermitted and undisclosed activities or discharges, will likely require an official permit modification, including another public participation process. Additionally, the use of insufficiently sensitive analytical methods to disclose the absence of any pollutant may not provide permit shield coverage.

PRETREATMENT

This permit cannot regulate pretreatment requirements for facilities discharging to an accepting permitted wastewater treatment facility. If applicable, the receiving entity (the publicly owned treatment works - POTW) is to ensure compliance with any effluent limitation guidelines for pretreatment listed in 40 CFR Subchapter N per 10 CSR 20-6.100. Pretreatment regulations per 644.016 RSMo are limitations on the introduction of pollutants or water contaminants into publicly owned treatment works or facilities. Domestic wastewater from industrial entities is not subject to pretreatment requirements.

REASONABLE POTENTIAL (RP)

Regulations per 10 CSR 20-7.015(9)(A)2 and 40 CFR 122.44(d)(1)(i) require effluent limitations for all pollutants which are (or may be) discharged at a level causing or have the reasonable potential to cause (or contribute to) an in-stream excursion above narrative or numeric water quality standards. Per 10 CSR 20-7.031(4), general criteria shall be applicable to all waters of the state at all times; however, acute toxicity criteria may be exceeded by permit allowance in zones of initial dilution, and chronic toxicity criteria may be exceeded by permit allowance in mixing zones. A reasonable potential analysis (RPA) is a numeric RP decision calculated using effluent data provided by the facility for parameters that have a numeric Water Quality Standard (WQS). If any given pollutant has the reasonable potential to cause or contribute to an in-stream excursion above the WQS or derived WQBEL, the permit must contain a WQBEL for the pollutant per 40 CFR Part 122.44(d)(1)(iii) and the most stringent limits per 10 CSR 20-7.031(9)(A). The RPA is performed using the *Technical Support Document for Water Quality Based Toxics Control (TSD)* methods (EPA/505/2-90-001) for continuous discharges. See additional considerations under Part II WATERBODY MIXING CONSIDERATIONS and Part III WASTELOAD ALLOCATIONS. Wasteload allocations are determined utilizing the same equations and statistical methodology. Absent sufficient effluent data, WQBELs are derived without consideration of effluent variability and is assumed to be present unless found to be absent to meet the requirements of antidegradation review found in 10 CSR 20-7.031(3) and reporting of toxic substances pursuant to 40 CFR 122.44(f). The department's permit writer's manual (<https://dnr.mo.gov/water/business-industry-other-entities/technical-assistance-guidance/wastewater-permit-writers-manual>), the EPA's permit writer's manual (<https://www.epa.gov/npdes/npdes-permit-writers-manual>), program policies, and best professional judgment guide each decision. Each parameter in each outfall is carefully considered; and all applicable information regarding: technology based effluent limitations, effluent limitation guidelines, water quality standards, inspection reports, stream water quality information, stream flows, uses assigned to each waterbody, and all applicable site specific information and data gathered by the facility through discharge monitoring reports and renewal (or new) application sampling.

Reasonable potential determinations (RPD) are based on physical conditions of the site as provided in Sections 3.1.2, 3.1.3, and 3.2 of the TSD using best professional judgement. An RPD consists of evaluating visual observations for compliance with narrative criteria, non-numeric information, or small amounts of numerical data (such as 1 data point supplied in the application). Narrative criteria with RP typically translate to a numeric WQBEL, so a parameter's establishment being based on narrative criteria does not necessarily make the decision an RPD vs RP—how the data is collected does, however. For example, a facility with orange discharge can have RP for narrative criteria like color, but a numeric iron limit is established to account for the violation of narrative criteria based on effluent data submitted by the facility. When insufficient data is received to make a determination on RP based on numeric effluent data, the RPD decisions are based on best professional judgment considering the type of effluent discharged, the current operational controls in place, and historical overall management of the site. In the case of iron causing excursions of narrative criteria for color, if a facility has not had iron monitoring in a previous permit, adding iron monitoring would be an RPD, since numeric data isn't being used in the determination, but observable, site-specific conditions are.

When the facility is performing surficial or subsurface land application, the volume of water, frequency of application, type of vegetation, soil type, land slopes, and general overall operating conditions are considered. 10 CSR 20-8 are regulations for the minimum operating conditions for land application; these regulations cannot be excused even if there is no RP. RP is reserved for discharging outfalls given that these outfalls are the only ones which water quality standards apply to, but the process is similar as the site conditions are compared to regulations, soil sampling, pollutant profile, and other site-specific conditions. In the case of non-discharging outfalls, an RPD is instead used to determine monitoring requirements.

The TSD RPA method cannot be performed on stormwater as the flow is intermittent and highly variable. A stormwater RPD consists of reviewing application data and discharge monitoring data and comparing those data to narrative or numeric water quality criteria.

For stormwater outfalls, considerations are required per 10 CSR 20-6.200(6)(B)2: A. application and other information supplied by the facility; B. effluent guidelines; C. best professional judgment; D. water quality; and E. BMPs.

RPDs are also performed for WET testing in wastewater. While no WET regulations specific to industrial wastewater exist, 40 CFR 122.21(j)(5) implies the following can be considered: 1) the variability of the pollutants; 2) the ratio of wastewater flow to receiving stream flow; and 3) current technology employed to remove toxic pollutants. Generally, sufficient data does not exist to mathematically determine RPA for WET, but instead compares the data for other toxic parameters in the wastewater with the necessity to implement WET testing with either monitoring or limits. When toxic parameters exhibit RP, WET testing is generally included in the permit as an RPD. However, if all toxic parameters are controlled via limitations or have exhibited no toxicity in the past, then WET testing may be waived. Only in instances where the wastewater is well characterized can WET testing be waived.

WET testing is typically not implemented for stormwater. Stormwater discharges do not adhere to the same principles of wastewater RPAs because stormwater discharges are not continuous, and at the time of precipitation discharge the receiving stream is also no longer at base (0) flow, meaning that using RP to develop WET testing requirements for stormwater is unrepresentative. The department works with the Missouri department of Conservation and has understanding of streams already exhibiting toxicity, even without the influence of industrial wastewater or stormwater. Facilities discharging to streams with historical toxicity are required to use laboratory water for dilution, instead of water from the receiving stream when performing WET tests.

TSD methods encountered may be § 3.3.2, § 5.7.3 for metals, and § 5.4.1 for chloride. Part IV EFFLUENT LIMIT DETERMINATIONS provides specific decisions related to this permit. In general, removal of a WQBEL if there is no RP is not considered backsliding, see ANTIBACKSLIDING for additional information.

- ✓ The previous permit indicated “There Shall Be No Discharge of Floating Solids or Visible Foam in Other Than Trace Amounts” under each table. The statement was not evaluated against actual site conditions therefore, this general criterion was re-assessed. It was determined that this facility does discharge solids in amounts which would indicate reasonable potential to violate general criteria. This statement is no longer found in the permit; there are other permit conditions relating to this general criterion instead.
- ✓ A statistical RPA was conducted on appropriate parameters. A more detailed version including calculations of this RPA is available upon request.

Parameter:	Units	CMC Acute	CCC Chronic	Listing	Daily Max	Monthly Average	n#	CV	n Min	n Max	MF	RWC A	RWC C	RP
Ammonia	mg/L	0.53	0.10	early life	5.7	2.18	1	0.6	0.19	0.19	13.2	0.2	0.01	No
Aluminum (Al)	µg/L	750	n/a	AQL	8250.00	4112.27	1	0.6	2010	2010	13.2	2411	25.5	No
Arsenic (As)	µg/L	340	150	AQL	3740.01	1864.24	1	0.6	22.8	22.8	13.2	27.3	0.3	No
Arsenic (As)	µg/L	n/a	100	IRR	170661.99	85067.75	1	0.6	22.8	22.8	13.2	27.3	0.3	No
Beryllium	µg/L	n/a	5	AQL	8533.10	4253.39	1	0.6	2	2	13.2	2.4	0.0	No
Boron (B)	µg/L	n/a	2000	AQL	3413239.8	1701354.93	1	0.6	475	475	13.2	569.8	6.0	No
Cadmium (Cd)	µg/L	12.29	1.59	AQL	135.24	67.41	1	0.6	1	1	13.2	1.2	0.0	No
Chromium III	µg/L	3693	176.55	AQL	40627.78	20251.22	1	0.6	45.8	45.8	13.2	54.9	0.6	No
Chromium	µg/L	n/a	100.00	IRR	170661.99	85067.75	1	0.6	45.8	45.8	13.2	54.9	0.6	No
Copper (Cu)	µg/L	31.93	19.71	AQL	351.24	175.08	1	0.6	6.3	6.3	13.2	7.6	0.1	No
Cyanide (CN)	µg/L	22	5	AQL	242.00	120.63	1	0.6	5	5	13.2	6.0	0.1	No
Fluoride (F-)	mg/L	n/a	4	AQL	6826.5	3402.71	1	0.6	0.3	0.3	13.2	0.4	0.0	No
Iron (Fe)	µg/L	n/a	1000	AQL	1785774	820391	32	0.7	0.1	3.09	2.2	0.6	0.0	No
Lead (Pb)	µg/L	248.74	9.70	AQL	2736.14	1363.85	1	0.6	8	8	13.2	9.6	0.1	No
Mercury (Hg)	µg/L	1.65	0.8	AQL	18.12	9.03	1	0.6	5	5	13.2	6.0	0.1	No
Nickel (Ni)	µg/L	984.63	109.40	AQL	10830.98	5398.78	1	0.6	26	26	13.2	31.2	0.3	No
Selenium (Se)	µg/L	n/a	5	AQL	8533.10	4253.39	1	0.6	7.9	7.9	13.2	9.5	0.1	No
Silver (Ag)	µg/L	17.09	n/a	AQL	188.00	93.71	1	0.6	4	4	13.2	4.8	0.1	No
Sulfate	mg/L	n/a	250.00	DWS	452356.59	225480.53	1	0.6	127	127	13.2	152.3	1.5	No
Thallium (Tl)	µg/L	n/a	6.3	HHP	13922.05	5682.11	1	0.6	0.8	0.8	13.2	1.0	0.0	No
TSS	g/L	26.8	0.739	none	294.796	104.004	30	1.4	13.7	265.9	3.7	896.4	0.330	No
TTHM	µg/L	n/a	80	HHP	144754.11	72153.77	5	0.6	3	10	4.2	3.8	0.0	No
Zinc (Zn)	µg/L	252.09	250.05	AQL	2773.00	1382.22	1	0.6	55	55	13.2	66.0	0.7	No
TRC - Warm	µg/L	19	11	AQL	209.0	104.18	1	0.6	2500	2500	13.2	2998	31.7	Yes

n/a Not Applicable

n number of samples; if the number of samples is 10 or greater, then the CV value must be used in the WQBEL for the applicable constituent.

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

CCC continuous chronic concentration

CMC continuous maximum concentration

RWC Receiving Water Concentration: concentration of a toxicant or the parameter in the receiving water after mixing (if applicable) (A = Acute, C = Chronic)

MF Multiplying Factor; 99% confidence level and 99% probability basis

RP Reasonable Potential: 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).

TTHM data was obtained from Missouri's Safe Drinking Water Information System (SDWIS)

REGIONAL OFFICES (ROS)

Regional Offices will provide a compliance assistance visit at a facility's request; a regional map with links to phone numbers can be found here: <https://dnr.mo.gov/about-us/division-environmental-quality/regional-office>. Or use <https://dnr.mo.gov/compliance-assistance-enforcement> to request assistance from the Region online.

- ✓ This facility is located in the service area of Kansas City Regional Office, which can be reached at kcro@dnr.mo.gov or by phone at 816-251-0700.

RENEWAL REQUIREMENTS

Pursuant to 644.051.19, the renewal application is due at least 180 days prior to expiration. The renewal special condition permit requirement is designed to guide the facility to prepare and include all relevant and applicable information in accordance with 10 CSR 20-6.010(7)(A)-(C), and any applicable federal regulations. The department may request additional information at the time of permit renewal under 644.051.19(5) RSMo and 40 CFR 122.21(h). Prior to submittal, the facility must review the entire submittal to confirm all required information and data is provided; it is the facility's responsibility to discern if additional information is required. Failure to fully disclose applicable information with the application or application addendums may result in a permit revocation per 10 CSR 20-6.010(8)(A) and may result in the forfeiture of permit shield protection authorized in 644.051.22 RSMo. 644.076.1 RSMo indicates that false statements and negligent acts are prohibited. Sufficiently sensitive analytical methods must be used. A sufficiently sensitive method is one that can effectively describe the presence or absence of a pollutant at or below that pollutant's permit limit or water quality standard, whichever is less. Forms are located at: <https://dnr.mo.gov/water/business-industry-other-entities/permits-certification-engineering-fees/wastewater> This facility shall submit an appropriate and complete application to the department no less than 180 days prior to the expiration date listed on page 1 of the permit. The facility may email cleanwaterpermits@dnr.mo.gov to submit the application to the Program. A paper copy is not necessary if submitted via email. For larger applications, a drop-box type service may also be used.

- ✓ Application materials shall include complete Form A and Form C.

SAMPLING FREQUENCY JUSTIFICATION

Sampling and reporting frequency was retained or increased from the previous permit. 40 CFR 122.45(d)(1) indicates all continuous discharges, such as wastewater discharges, shall be permitted with daily maximum and monthly average limits. Minimum sampling frequency for all parameters is annually per 40 CFR 122.44(i)(2).

SAMPLING TYPE JUSTIFICATION

Sampling type was continued from the previous permit. The sampling types are representative of the discharges and are protective of water quality. Discharges with altering effluent will consider implementing composite sampling; discharges with uniform effluent can have grab samples. Grab samples are usually appropriate for stormwater. Parameters which must have grab sampling are: pH, ammonia, *E. coli*, total residual chlorine, free available chlorine, hexavalent chromium, dissolved oxygen, volatile organic compounds, and others. For further information on sampling and testing methods see 10 CSR 20-7.015(9)(D)2. Samples collected from mechanical plants per 10 CSR 20-7.015(2)(C)1.B. shall be a 24-hour composite sample. Time will be necessary for the facility to install a composite sampling device; grab samples initially, then composite sampling will be required after the SOC.

SCHEDULE OF COMPLIANCE (SOC)

A schedule of compliance is time allowed to meet future more stringent limitations. The SOC can also be remedial measures included in a permit, including an enforceable sequence of interim requirements (actions, effluent limits, operations, or milestone events) leading to compliance with the Missouri Clean Water Law, its implementing regulations, and the terms and conditions of an operating permit. SOC's are allowed under 40 CFR 122.47 and 10 CSR 20-7.031(11) providing certain conditions are met.

An 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 in accordance with 40 CFR 125.3.
- For a newly constructed facility in most cases per 644.029 RSMo. Newly constructed facilities must meet all applicable effluent limitations (technology and water quality) when discharge begins. New facilities are required to install the appropriate control technologies as specified in a permit or antidegradation review. A SOC is allowed for a new water quality based effluent limit 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 associated with development of a site-specific criterion. A facility is not prohibited from conducting these activities, but a SOC may not be specifically granted for conducting these activities.

In order to provide guidance in developing SOC's, and to attain a greater level of consistency, the department issued a policy on development of SOC's on October 25, 2012. The policy provides guidance for standard time frames for schedules for common activities, and guidance on factors to modify the length of the schedule.

- ✓ Applicable; the time given for WQBELs in this permit listed under Interim Effluent Limitations and Final Effluent Limitations were established in accordance with 10 CSR 20-7.031(11). The facility has been given a schedule of compliance to meet final WQBEL(s) and narrative criteria. Time is necessary to install the appropriate technology and move the discharge pipe. See permit Sections A and B for compliance dates.

SPILLS, OVERFLOWS, AND OTHER UNAUTHORIZED DISCHARGE REPORTING

Any emergency involving a hazardous substance must be reported to the department's 24-hour Environmental Emergency Response hotline at (573) 634-2436 (or the National Response Center) at the earliest possible moment after discovery pursuant to 260.500-260.550 RSMo. The department may require the submittal of a written report detailing measures taken to clean up a spill. These reporting requirements apply whether or not the spill results in chemicals or materials leaving the permitted property or reaching waters of the state. This requirement is in addition to the noncompliance reporting requirement found in Standard Conditions Part I. <https://revisor.mo.gov/main/OneSection.aspx?section=260.500&bid=13989&hl=>

Any other spills, overflows, or unauthorized discharges reaching waters of the state must be reported to the regional office during normal business hours, or after normal business hours, to the department's 24-hour Environmental Emergency Response spill line at 573-634-2436.

Certain industrial facilities are subject to the self-implementing regulations for Oil Pollution Prevention in 40 CFR 112, and are required to initiate and follow Spill Prevention, Control, and Countermeasure (SPCC) Plans. This permit, as issued, is not intended to be a replacement for any SPCC plan, nor can this permit's conditions be automatically relaxed based on the SPCC plan if the permit is more stringent than the plan.

SLUDGE – INDUSTRIAL

Industrial sludge is solid, semi-solid, or liquid residue generated during the treatment of industrial process or non-process wastewater in a treatment works; including but not limited to, scum or solids removed in primary, secondary, or advanced wastewater treatment process; scum and solids filtered from water supplies and backwashed; and any material derived from industrial sludge. Industrial sludge could also be derived from holding structure dredging or other similar maintenance activities. Certain oil sludge, like those from oil water separators, are subject to self-implementing federal regulations under 40 CFR 279 for used oils.

- ✓ Applicable; sludge is discharged under this permit and within permitted limits pursuant to 10 CSR 20-7.015(2)(B). While this is a regulatory allowance, the allowance must also fall within other regulatory requirements for discharge, such as water-quality based effluent limits and technology-based effluent limits.

STANDARD CONDITIONS

The standard conditions Part I attached to this permit incorporate all sections of 10 CSR 20-6.010(8) and 40 CFR 122.41(a) through (n) by reference as required by law. These conditions, in addition to the conditions enumerated within the standard conditions must be reviewed by the facility to ascertain compliance with this permit, state regulations, state statutes, federal regulations, and the Clean Water Act.

STORMWATER

A permit must require appropriate stormwater conditions if the SIC code or facility description type is found in 40 CFR 122.26(b)(14) and/or 10 CSR 20-6.200(2). Storm water discharge associated with industrial activity, the term may include, but is not limited to: storm water discharges from industrial plant yards; immediate access roads used or traveled by carriers of raw materials, , waste material, or by-products used or created by the facility; material handling sites; sites used for the application or disposal of process wastewaters; sites used for the storage and maintenance of material handling equipment; sites used for residual treatment, storage, or disposal; shipping and receiving areas; manufacturing buildings; storage areas (including tank farms) for raw materials and intermediate and finished products unless material is in closed cars or trailers and the loading/unloading operation does not expose material to storm water or otherwise pose risk of storm water contamination and areas where industrial activity has taken place in the past and where significant materials remain and are exposed to storm water.

- ✓ Not applicable; this facility's description is found in 10 CSR 20-6.200(2)(B)3.F. Industrial facilities that are federally, state, or municipally owned or operated. Stormwater has no contact with industrial activities; therefore, no exposure conditions are implemented.

TECHNOLOGY-BASED EFFLUENT LIMITATIONS (TBEL)

One of the major strategies of the Clean Water Act (CWA) in making "reasonable further progress toward the national goal of eliminating the discharge of all pollutants" is to require effluent limitations based on the capabilities of the technologies available to control those discharges. Technology-based effluent limitations (TBELs) aim to prevent pollution by requiring a minimum level of effluent quality attainable using demonstrated technologies for reducing pollutant discharges. TBELs are developed independently of the potential impact of a discharge on the receiving water, which is addressed through water-quality criteria and water-quality based effluent limitations (WQBELs). NPDES regulations at 40 CFR 125.3(a) require permits to develop technology-based treatment requirements, consistent with CWA § 301(b) and § 402(a)(1) which represent the minimum level of control that must be imposed in a permit. The regulation also indicates permits must include additional or more stringent effluent limitations and conditions, including those necessary to protect water quality. Regardless of the technology chosen to be the basis for limitations, the facility is not required to install the technology, only to meet the established TBEL. However, technologies installed may not be removed unless a permit modification to change the FACILITY DESCRIPTION is completed.

Case-by-case TBELs are developed pursuant to CWA 402(a)(1), which authorizes and requires the administrator to issue a permit meeting either, 1) all applicable requirements developed under the authority of other sections of the CWA (e.g., technology-based treatment standards, water quality standards) or, 2) any “such conditions as the administrator determines are necessary to carry out the provisions of this Act.” 40 CFR 125.3(c)(2) specifically cite this section of the CWA, stating technology-based treatment requirements may be imposed in a permit “on a case-by-case basis under section 402(a)(1) of the Act, to the extent that EPA-promulgated effluent limitations are inapplicable.” Further, 40 CFR 125.3(c)(3) indicates “where promulgated effluent limitations guidelines only apply to certain aspects of the discharger’s operation, or to certain pollutants, other aspects or activities are subject to regulation on a case-by-case basis to carry out the provisions of the act.” When establishing case-by-case effluent limitations using best professional judgment, the permit writer should cite in the fact sheet or statement of basis both the approach used to develop the limitations, as discussed below, and how the limitations carry out the intent and requirements of the CWA and the NPDES regulations; see effluent limit derivations in Part IV of the fact sheet. Instead of a numeric TBEL analysis, review of operations was completed. The facility submitted a BPJ study.

SUFFICIENTLY SENSITIVE ANALYTICAL METHODS

Please review Standard Conditions Part 1, §A, No. 4. The analytical and sampling methods used shall conform to the reference methods listed in 10 CSR 20-7.015 or 40 CFR 136 unless alternates are approved by the department and incorporated within this permit. The facility shall use sufficiently sensitive analytical methods for detecting, identifying, and measuring the concentrations of pollutants. The facility shall ensure the selected methods are able to quantify the presence of pollutants in any given discharge at concentrations 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. The reporting limits established by the chosen laboratory must be below the lowest effluent limits established for the specified parameter (including any parameter’s future limit after an SOC) in the permit unless the permit provides for an ML or if the facility provides a written rationale to the department. It is the facility’s responsibility to ensure the laboratory has adequate equipment and controls in place to quantify the pollutant. Inflated reporting limits will not be accepted by the department if the reporting limit is above the parameter value stipulated in the permit. A method is “sufficiently sensitive” when; 1) the method quantifies the pollutant below the level of the applicable water quality criterion 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 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 and or 40 CFR 136. These methods are also required for parameters listed as monitoring only, as the data collected may be used to determine if numeric limitations need to be established. A facility is responsible for working with their contractors to ensure the analysis performed is sufficiently sensitive.

UNDERGROUND INJECTION CONTROL (UIC)

Class V wells are sub-surface dispersal or injection of any industrial wastewater; and in certain circumstances, may also be considered a Class V well if it is domestic wastewater. They can also be shallow injection wells like heat pumps and groundwater remediation wells. UIC systems may be described as having “septic tanks” or “lateral lines” in addition to the traditional well type of injection. The UIC program for all classes of wells in the State of Missouri is administered by the Missouri Department of Natural Resources and approved by EPA pursuant to §§1422 and 1425 of the Safe Drinking Water Act (SDWA) and 40 CFR 147 Subpart AA. Injection wells are classified based on the liquids which are being injected. Class I wells are hazardous waste wells which are banned by 577.155 RSMo; Class II wells are established for oil and natural gas production; Class III wells are used to inject fluids to extract minerals; Class IV wells are also banned by Missouri in 577.155 RSMo. In accordance with 40 CFR 144.82, construction, operation, maintenance, conversion, plugging, or closure of injection wells shall not cause movement of fluids containing any contaminant into Underground Sources of Drinking Water (USDW) if the presence of any contaminant may cause a violation of any drinking water standards or groundwater standards under 10 CSR 20-7.031, or other health-based standards, or may otherwise adversely affect human health. If the director finds the injection activity may endanger USDWs, the department may require closure of the injection wells, or other actions listed in 40 CFR 144.12(c), (d), or (e). In accordance with 40 CFR 144.26, the facility shall submit a Class V Well Inventory Form for each active or new underground injection well drilled, or when the status of a well changes, to the Missouri Department of Natural Resources, Geological Survey Program, P.O. Box 250, Rolla, Missouri 65402. The Class V Well Inventory Form can be requested from the Geological Survey Program or can be found at the following web address:

<https://dnr.mo.gov/document-search/class-v-well-inventory-form-mo-780-1774> Single family residential septic systems and non-residential septic systems used solely for sanitary waste and having the capacity to serve fewer than 20 persons a day are excluded from the UIC requirements (40 CFR 144.81(9)). The department implements additional requirements for these types of operations pursuant to 10 CSR 20-6.015(4)(A)1 which instructs the department to develop permit conditions containing limitations, monitoring, reporting, and other requirements to protect soils, crops, surface waters, groundwater, public health, and the environment.

✓ Not applicable; the facility has not submitted materials indicating the facility is or will be performing UIC at this site.

VARIANCE

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 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. Thermal variances are regulated separately and are found under 644 RSMo.

- ✓ Not applicable; this permit is not drafted under premise of a petition for variance.

WASTELOAD ALLOCATIONS (WLA) AND METHODS FOR CALCULATING WQBELS

Per 10 CSR 20-2.010; definitions, the WLA is the maximum amount of pollutant each discharger is allowed to discharge into the receiving stream without endangering water quality. Only streams with available load allocations can be granted discharge allowances. Outfalls afforded mixing allocations provide higher limits because the receiving stream is able to accept more pollutant loading without causing adverse impacts to the environment or aquatic life. The department uses the *Technical Support Document For Water Quality-Based Toxics Control* or “TSD” EPA/505/2-90-001; 3/1991 for wastewater discharges.

- ✓ Applicable; wasteload allocations for toxic parameters are calculated using water quality criteria, TMDLs, or water quality model results; and by applying the dilution equation below, assuming a steady state.

$$C = \frac{(Cs \times Qs) + (Ce \times Qe)}{(Qe + Qs)}$$

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

Definitions for WQBEL Calculations:

- CMC: criteria maximum concentration; the acute numeric criteria
- CCC: criteria continuous concentration; the chronic numeric criteria
- WLAA: acute wasteload allocations; the short-term load (hours to 1 day) a receiving waterbody may receive the effluent without endangering water quality.
- WLAC: chronic wasteload allocations; the long-term load (4 days for toxics, 30 days for ammonia) a receiving waterbody may receive the effluent without endangering water quality.
- The WLAs take mixing into consideration.
- Mixing: when a stream’s flow 7Q10 is above 0.1 cfs, (or lake width is sufficient) the discharge may be afforded mixing allowances. See Part II – WATERBODY MIXING CONSIDERATIONS, if mixing is allowed for the discharge.
- n: number of samples. Effluent quality is determined by the underlying distribution of daily values, 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 assumption which is, at a minimum, targeted to comply with the values dictated by the WLA. The statistical procedure being employed uses an assumed number of samples “n = 4” regardless of how many samples are collected each month by the facility. See additional information under Part III – REASONABLE POTENTIAL to review how this information is used to determine RP.
- Most toxic parameter’s effluent limits are calculated using TSD §4.5.5. Each parameter below will have the
- AML: monthly average limits are typically the most stringent limits applied. Facilities subject to AMLs are welcome to take additional samples in the month to meet the limit by averaging the results.
- When only one sample is taken in the month, the sample result is applied to both the daily maximum and monthly average.
- These equations are statistical equations (See Part III – REASONABLE POTENTIAL) used to calculate the hypothetical or actual variability of the wastewater and the spreadsheet output obtains an effluent limit.

WASTELOAD ALLOCATION (WLA) MODELING

Facilities may submit site specific studies to better determine the site specific wasteload allocations applied in permits.

- ✓ Applicable; a WLA study determined pH would have sufficient mixing in the river therefore an upper pH boundary of 10.5 is allowed.

WATER QUALITY STANDARD REVISION

In accordance with 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.

- ✓ This operating permit does not contain requirements for a water quality standard changing twenty-five percent or more, which was found in the previous operating permit, and since the previous operating permit.

WHOLE EFFLUENT TOXICITY (WET) TEST

A WET test is a quantifiable method to conclusively determine if discharges from the facility cause toxicity to aquatic life by itself, in combination with, or through synergistic responses, typically when mixed with receiving stream water. Under the CWA §101(a)(3), requiring WET testing is reasonably appropriate for Missouri State Operating Permits to quantify toxicity. WET testing is also required by 40 CFR 122.44(d)(1) when RP is found. WET testing ensures the provisions in 10 CSR 20-6 and Missouri’s Water Quality Standards in 10 CSR 20-7 are being met; the acute WQS for WET is 0.3 TUa. Under 10 CSR 20-6.010(8)(A)4, the department may require other terms and conditions it deems necessary to ensure compliance with the CWA and MCWL. Requirements found in the federal application requirements for POTWs (40 CFR 122.21(j)(5)) do not apply to industrial facilities, therefore WET testing can be implemented on a case-by-case basis following the factors outlined below. Annual testing is the minimum testing frequency if reasonable potential is found; monitoring requirements promulgated in 40 CFR 122.44(i)(2) state “requirements to report monitoring results shall be established on a case-by-case basis with a frequency dependent on the nature and effect of the discharge, but in no case

less than once per year.” Typically, annual WET requirements are established for the calendar year, and the report is due January 28th of the following year.

To determine reasonable potential, factors considered are: 1) history of toxicity; 2) quantity and quality of substances (either limited or not) in the permit with aquatic life protections assigned; and 3) operational controls on toxic pollutants. See Part III under REASONABLE POTENTIAL for additional information. A facility does not have to be designated as a major facility to receive WET testing; and being a major facility does not automatically require WET testing. Additionally, per 40 CFR 122.44(d)(1)(v), limits on whole effluent toxicity are not necessary where the permitting authority demonstrates in the fact sheet, using the procedures in 40 CFR 122.44(d)(1)(ii) of this section, that chemical-specific limits or specified operational controls are sufficient to attain and maintain applicable numeric and narrative water quality standards.

If WET limits are applied to this facility, follow up testing applies. When a facility exceeds the TU established in the permit, three additional follow-up tests are triggered. The follow up test results do not negate the initial testing result. If the facility is within the prescribed TU limit for all three follow up tests, then no further testing is required until the next regularly scheduled tests. If one or more additional tests exceed the TU limit, the facility may consider beginning the Toxicity Identification Evaluation (TIE) and Toxicity Identification Reduction (TIR) processes instead of waiting for three consecutive TU exceedances. The TIE and TIR process can take up to two years, especially when toxicity is variable or transient. We urge facilities to work closely with their WET testing laboratory to follow nationwide guidance for determining causes of toxicity and curative activities to remove toxicity. Additional wastewater controls may be necessary; and while, generally, no Construction Permit (CP) is required for adding treatment at industrial facilities, the facility may check with the Engineering Section to determine a plan of action.

If WET testing failures are from a known toxic parameter, and the facility is working with the department to alleviate that pollutant's toxicity in the discharge, please contact the department prior to conducting follow-up WET testing. Under certain conditions, follow-up testing may be waived when the facility is already working to reduce and eliminate toxicity in the effluent. For the purposes of reporting, the laboratory may supply either the TU value, the LC₅₀, or the NOEC. If the laboratory only supplied the LC₅₀ or the NOEC value, the toxic unit is calculated by 100/LC₅₀ for acute tests, or 100/NOEC for chronic tests. The TU value is entered in the eDMR system. Reports showing no toxicity are usually entered as <1.

✓ Not applicable; WET testing was not implemented in this permit because the pollutants limited in this permit are sufficient to determine effluent toxicity. TRC is the only aquatic life toxic pollutant and TRC has numeric limits (after an allowed SOC).

WET tests were reviewed for similar facilities. Initially, it was proposed that there could be RP for WET due to lime solids' presence therefore numeric limits for WET testing were applied. WET toxicity was expected to be tied to lime solids discharge. First, as lime is naturally high in pH this parameter will translate to control of the quantity of residuals being discharged. As the high pH and high concentration of residual lime/sediments contribute to aquatic toxicity, numeric limits for Acute WET would translate to limitation of the quantity of residuals being discharged. Toxicity can be affected by the solids concentrations in water; gill function and motility are negatively affected when solids accumulate on gill surfaces or make feeding impossible. Suspended and dissolved solids affect organisms in different ways, and different types of solids, such as salts or alternatively organic materials, behave differently when contacting different organisms. Dissolved salts can shift the ionic composition of water and cause organisms to dehydrate due to cell adsorptions of salts. Lime, a calcium precipitate product, was expected to negatively affect organisms by upregulating calcium ion (Ca⁺⁺) channels, causing unregulated muscle activity, heartbeat dysregulation, and ultimately fish death if exposure continues. However, the WET tests showed no toxicity under mixing conditions (the mixing would be the same at this facility as it is at the MAWC Central Plant MO0003727 for acute toxicity testing). Because the department has collected other data, that data was used to determine that there is no RP for WET at this time.

PART IV. EFFLUENT LIMIT DETERMINATIONS

OUTFALLS #001 AND #003 – DRINKING WATER TREATMENT WASTEWATER

EFFLUENT LIMITATIONS TABLE:

PARAMETERS	UNIT	DAILY MAXIMUM	MONTHLY AVERAGE	PREVIOUS PERMIT LIMITS	MINIMUM SAMPLING FREQUENCY	REPORTING FREQUENCY	SAMPLE TYPE
PHYSICAL & SOLIDS							
Flow	MGD	*	3.0	same	daily	monthly	24 Hr. Tot
Visual Assessment	pass/fail	*	-	interim	once/month	monthly	visual
Visual Assessment	pass/fail	“0” no visible difference		final	once/month	monthly	visual
Water Treatment Additives	tons	* total tons	* average	same	daily	monthly	measure
Settleable Solids	mL/L/hr	*	*	new	once/month	monthly	grab & comp
Source Water Solids	tons	* total tons	*	new	once/week	monthly	calculate
Total Suspended Solids (TSS)	mg/L	*	*	new	once/week	monthly	grab & comp
Total Suspended Solids (TSS)	Tons/day	* total tons	691.2	new	once/week	monthly	calculated
CONVENTIONAL							
Chlorine, Total Residual (TRC)	µg/L	*	*	interim	once/month	monthly	grab
Chlorine, Total Residual (TRC)	µg/L	209	104	final	once/week	monthly	grab
pH [†]	SU	6.5 to 10.5	-	new	once/week	monthly	grab
DISINFECTION BYPRODUCTS							
Bromodichloromethane	µg/L	*	*	new	once/year	annually	grab
Bromoform	µg/L	*	*	new	once/year	annually	grab
Chlorodibromomethane	µg/L	*	*	new	once/year	annually	grab
Chloroform	µg/L	*	*	new	once/year	annually	grab
Total Trihalomethanes	µg/L	*	*	new	once/year	annually	grab
METALS							
Aluminum, Total	µg/L	*	*	new	once/year	annually	grab

See notes in permit.

DERIVATION AND DISCUSSION OF LIMITS:

PHYSICAL PARAMETERS & SOLIDS:

The primary pollutants of concern at this facility are solids. While the Missouri River is naturally laden with solids, the discharge from this facility is a whitish-gray color and photographic evidence shows a buildup of what appears to be water treatment plant solids along the bank of the river. The permit requirements in this section serve to determine compliance with general criteria and serve to ensure that river organisms are not negatively affected by solids from this facility.

Settleable and suspended solids are two of the primary pollutants of concern at this type of facility. Neither settleable or suspended solids were limited in the last permit; neither have state-wide numeric water quality standards (WQS), nor are there any federal technology-based standards applicable to this facility. Solids monitoring is typically included in permits because this monitoring allows the facility to determine if Best Management Practices (BMPs) are working.

Outfall #001 currently discharges to the Missouri River at the 353.2-mile marker on the river’s right descending bank. At its terminus, outfall #001 is a 6-inch ductile iron pipe with an invert elevation of approximately 720 ft. msl. This discharge is visible.

To develop permit conditions for this very expired permit, other effective permits were reviewed, Central (Chesterfield) DWTP in Missouri, Council Bluffs, Iowa, and the following in Nebraska: Blair PWTP, Florence PWTP, Platte South PWTP, and Platte West PWTP. While these facilities are similar, no singular other DWTP represents fully the conditions at the Courtney Bend DWTP.

Flow

Per 40 CFR Part 122.44(i)(1)(ii) the volume of effluent discharged from each outfall is needed to ensure compliance with permitted effluent limitations as effluent limits are based on expected flows, and therefore loading of solids. If the facility is unable to obtain effluent flow, then it is the responsibility of the facility to inform the department, which may require the submittal of an operating permit modification. The facility will report the total maximum daily flow and average in millions of gallons per day (MGD). This flow measurement does include entrained solids. The previous permit required once per month sampling; this permit increases the sampling requirement to daily. The facility reported from 1.01 to 2.31 MGD at outfalls #001, #002, and #003 in the last 5 years. The design flow is established at 3.0 MGD for this facility, therefore the monthly average is set at 3.0 MGD.

Visual Assessment for Color and Turbidity

Color, turbidity, harmful bottom deposits, floating debris, and physical changes are general criteria required for evaluation in 10 CSR 20-7.031(4)(A), -(B), -(C), and -(H). The discharge from this facility is, at times, visible on Google Earth and other publicly available satellite imagery. The discharge of water treatment plant residuals including river solids as well as water softening and water treatment solids. These outfalls convey large flows which carry solids and are discharged at the surface of the river or very shallow points beneath the water surface. As this discharge currently violates the general criteria, limits are established with a schedule of compliance. Monitoring is required at all discharge points until the limits are effective at the end of the schedule of compliance. Visual Assessment for Color and Turbidity has both a pass/fail threshold, as well as a technology assessment, with the intent of establishing a numeric correlation with the visible assessment. With this data, in the future, turbidity numeric limitations could be established. Relocation of Outfall #001 to beneath the river's surface will result in a passing result in the future. The facility will conduct a visual assessment of the discharge. Report "0" for no visible difference than the receiving river (or the discharge is below the river's surface) or report 1 for a discharge that is visible and does not match the color and turbidity of the receiving river. Relocating the outfall to below the waters surface will be considered the best management practice to the maximum extent practicable and will meet the visual assessment requirement. The facility is to report "0" after the outfall is relocated.

Source Water Solids

The previous permit required a monthly sum of alluvial river solids discharged. The facility reported from 1.68 to 41.48 tons/month at outfalls #001, #002, and #003 in the last 5 years. This requirement is being retained. This data is used to determine solids requirements. The facility will report the total for the month and the average for the month (the previous permit required daily maximum and monthly average). The new reporting requirement will provide a more complete picture of monthly discharges. The Missouri River alluvial groundwater source is naturally high in calcium, magnesium, and iron. Calcium, magnesium, and iron were evaluated for RP; there is no RP for these individual parameters. A net limit cannot be granted for a water-quality based effluent limit, such as iron. Net limits can only be provided to technology-based effluent limits pursuant to 40 CFR 122.45(g). Approximately 46% of the solids in the facility's discharge are alluvial river solids. Continuation of reporting this parameter will provide information for future case-by-case technology-based effluent limitations. Net limits can be applied to solids when a technology-based effluent limits is established.

Determining source water solids discharge is the mathematical equation: incoming solids – finished water solids = source water solids discharged, in tons. The facility will submit the total tons discharged each month (no limit) as shown in the "daily maximum" column and will average daily tons discharged.

The USACE establishes a commercial navigation season on the Missouri River from April to December each year. During the navigation season flow releases from the upper Missouri River basin and its impoundment (Gavins Point Dam) are increased to support increased depth for movement of commercial vessels and cargo. As a result of this management strategy, a portion of the river has greater depth and velocity. The facility is located along the right descending bank (inside bend), which is opposite of the portion of river that is maintained for commercial navigation by the United States Army Corps of Engineers (USACE).

The wastewater discharge was reviewed for compliance with general criteria; there is RP for a general criteria violation based on visual evidence and the BPJ study. The pipe relocation requirements are appropriate based on the activities at the site and are established pursuant to 10 CSR 20-7.015(9)(I)1 utilizing best professional judgment.

Currently, the elevation of outfall #001 end of pipe is above the 90th percentile river elevation. The elevation of the end of the discharge pipe relative to the river elevations causes a visible plume in the Missouri River when residuals are being discharged. Sufficient river depths are likely present near the outfall below the minimum river water level to relocate the pipe to a lower elevation in the river to achieve compliance with narrative water quality criteria and without encroaching on the USACE navigation channel. The relocated pipe should be at least four feet above the river bottom elevation to avoid a potential buildup of deposits from the discharge or natural sedimentation of the river causing an obstruction on the end of the discharge pipe. River substrate elevations along the right descending bank of the river indicate the depth at the navigation channel boundary is approximately 690.69 feet. Therefore, the minimum invert elevation for the relocated outfall pipe should be approximately 694.69 feet, which is below the lowest river elevation recorded at the Kansas City gage between 2015 and 2024 of 708.0 feet (calculated surface water elevation at outfall #001 of 698.1 feet). See permit Special Condition #1.

The facility's design flow is compared to the Missouri River flow. Missouri River background solid loads are substantially higher than outfall #001 solids contribution. The Missouri River is historically noted for naturally high TSS concentrations and loadings. Annual average Missouri River solids loading measured near the facility is approximately 56,720,209 dry tons per year. The approximate annual solids load of the facility is 29,362 dry tons per year, approximately 0.05% of the annual average Missouri River solids load. The assessment of TSS water quality impacts from facility discharges to the Missouri River takes several factors into consideration including:

- The absence of numeric TSS water quality criteria;
- The presence of regulatory mixing allowances;
- The comparatively immense flow volume of the Missouri River that provides dilution capacity and fish passage;
- The naturally high background TSS concentrations in the Missouri River to which native aquatic life are adapted;
- Missouri River TSS concentrations at present are substantially lower than natural historic concentrations;
- Other DWTP biotic studies; and
- The state regulatory allowances for the return of intake solids back to the River including solids removed from potable waters that are withdrawn from alluvial wells (10 CSR 20-7.015(2)(B)).

Water Treatment Additives

The previous permit required a monthly sum of water treatment additives discharges. The facility reported from 152 to 870.8 tons/month at outfalls #001, #002, and #003 in the last 5 years. The long-term average is 258.8 tons monthly. This requirement is being retained. The facility will provide daily data and will report the total for the month and the average for the month (the previous permit required daily maximum and monthly average). The new reporting requirement will provide a more complete picture of monthly discharges. This data is used to determine solids requirements and will be necessary to develop future case-by-case technology-based effluent limits.

This facility withdraws groundwater from nearby Missouri River alluvial groundwater wells to treat and distribute to residential and commercial consumers. DWTP residuals are generated through aeration, disinfection, lime softening, and clarification processes. Treatment residuals consist of solids from alluvial well source water (precipitated iron and manganese), lime softening (precipitated calcium carbonate and magnesium hydroxide), and disinfection chemicals (chlorine and ammonia).

Based on the water treatment plant residuals production data collected from 2018 through 2022, the facility has averaged approximately 29,362 tons of wastewater solids per year discharged from the outfalls, of which approximately 13,458 tons of solids, or 46 percent, are naturally occurring in the source water. Of the remaining average, 15,904 tons of chemical solids, approximately 97% are lime precipitated calcium carbonate. Missouri does not have any water quality criteria for calcium or manganese, however, pH limits in this permit serve to control discharges of lime, which has a high pH. Calcium and manganese are ubiquitous in Missouri; general criteria were assessed for these individual parameters, and no RP was found using RPD.

Settleable Solids (SS)

Settleable solids are materials settling out of a sample within a one-hour period. Settleable solids may include floating material depending on the technique used in the test. Monthly monitoring is required for this parameter to determine if settling solids could cause negative effects to the benthic organisms in the Missouri River. This facility is on the inside bend of the river, and solids deposition has been observed to be occurring at this site. The monitoring requirements are appropriate based on the activities at the site and are established pursuant to 10 CSR 20-7.015(9)(I)1 utilizing best professional judgment. SS data is necessary to determine compliance with general criteria. 10 CSR 20-7.031(4)(A) states in part: discharges must be "...free from substances in sufficient amounts to cause the formation of putrescent, unsightly, or harmful bottom deposits....". According to BPJ Study Part 7.3.7, the facility can optimize the process to comply with this general criteria. Initial sampling will be grab; after the SOC, composite sampling will be required. Time is necessary to install composite samplers.

Total Suspended Solids (TSS)

TSS are solids which will not pass through a standard 2-micron glass fiber filter. This will include both those solids that will settle or float in the clarifier and the lighter non-settleable solids (also referred to as "non-filterable residue"). Other than limited data supplied in the BPJ study and the application, there is not a robust dataset of TSS for this facility. Other DWTP facilities discharge between 12 and 49,550 mg/L total solids (MO0003727, St. Louis Central Plant), and between 835 and 13,058 mg/L total solids (MO0087718, Weldon Springs). TSS net data (intake – discharge = net) is available for the St. Louis Central Plant which ranges from non-detect to 49,235 mg/L; however, this facility utilizes alluvial wells, not a surface water intake like Central, so net limits for these two facilities cannot be easily compared. The wells at this facility are not considered groundwater under the influence of surface water (GUI) but solids recovered from these wells may be returned to the river under technology allowances pursuant to 10 CSR 20-7.015(2)(B).

10 CSR 20-7.031(4)(C) requires that water "shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor, or prevent full maintenance of designated uses". DWTP discharges, especially during the lime softening processes, have been noted to cause noticeable plumes downstream. Detection of the visible plumes has been conducted by the department in 2021, visually and by using turbidity analytical methods. A visible plume in the Missouri River likely occurs during Outfall #001 discharge (720 feet msl approximate pipe invert). The presence of a visible plume downstream of outfall #001 would indicate non-

attainment of narrative criteria and is therefore an important narrative water quality impact to address. Sufficient river depths are likely present near Outfall #001 below the minimum Missouri River water level to relocate the end of the pipe subsurface and achieve compliance with narrative water quality criteria without encroaching in the USACE navigation channel. See requirements under Flow above.

The turbidity of the alluvial aquifer source water is relatively constant and averages approximately 10 nephelometric turbidity units (NTU); however, alluvial aquifer turbidity can range from 3 NTU to 50 NTU, indicating TSS likely has variability.

TSS WATER-QUALITY ASSESSMENTS:

Biotic Assessment:

Solids discharges can negatively impact aquatic life or habitat. Increased settleable solids are known to interfere with multiple stages of the life cycle in many benthic organisms. For example, they can smother eggs and young or clog the crevasses benthic organisms use for habitat. Increased suspended solids in discharges can lead to decreased available oxygen for aquatic life and an increase of surface water temperatures in small receiving streams. However, the Missouri River is a naturally sediment rich waterbody, therefore biota have adapted to the high sediments. Because the Missouri River's sediment baseline is well above other rivers and streams, this discharge must be compared only to the Missouri River. A discharge of solids appropriate for the Missouri River will not be appropriate for other rivers.

One purpose of the BPJ study (April 2024) was to determine if the solids discharge caused general criteria water quality exceedances, needed technology controls, or harmed aquatic biota. Several studies have been conducted at other locations on the Missouri River and the facility provided information for specific species as well.

1. Aquatic Biota

A single endangered fish species was identified with an expected habitat range within the area of CBDWTP: *Scaphirhynchus albus* (pallid sturgeon). According to the Determination of Endangered Status for the Pallid Sturgeon, 55 FR 36641, in 1990 the USFWS listed the pallid sturgeon as endangered, and currently it is state and federally listed as endangered. Overharvest from commercial fishing, dams, habitat loss, and hybridization with shovelnose sturgeon threaten species survival. Pallid sturgeon are distributed in the mainstem Mississippi River and Missouri River and are bottom dwellers that occupy habitats of strong current with consolidated sand substrates. The discharge of water treatment residuals is not anticipated to impact the species as pallid sturgeon are naturally adapted to much higher suspended sediment environments.

Additionally, <https://nap.nationalacademies.org/read/10978/chapter/9#227> was reviewed¹. Pallid sturgeon seem to prefer excessively turbid waters and avoid areas that lack turbidity. In the lower Platte River, suspended-solids concentrations where hatchery-reared pallid sturgeon have been found ranged from 56 to 1,000 mg/L. Suspended-solids concentrations at locations where wild pallid sturgeon were captured in the lower Platte River range from 313 to 359 mg/L. Turbidity may act as a component of cover for pallid and shovelnose sturgeon. Studies in the Platte River found sturgeon away from objects, such as submerged logs, that afford cover to many species of riverine fishes, whereas studies in low-turbidity sections of the Missouri River have noted use of such areas by telemetry-tagged pallid sturgeon.

It is likely that dams, not turbidity, have caused the decline of the species.

2. Aquatic Macroinvertebrates

The closest macroinvertebrate study occurred in Jefferson City, Missouri. The department conducted macroinvertebrate sampling in 2013 at the Jefferson City DWTP (JCDWTP), MO0004600. At the time, the Jefferson City operations were similar to the operations at this facility.

The JCDWTP Study provided useful information on the water quality impacts of water treatment plant residuals discharges to the Missouri River, which is a comparable to discharges from the facility. The JCDWTP Study included water quality grab samples, continuous water quality monitoring, and macroinvertebrate sampling upstream and downstream of the water treatment plant in Jefferson City, Missouri. The department established three monitoring stations in the Missouri River to collect data which included: 475 feet upstream the JCDWTP residuals discharge outfall, 50 feet downstream of the outfall, and 500 feet downstream of the outfall. Water quality grab samples were collected at similar locations, except that the water quality grab outfall samples were near end-of-pipe samples rather than Missouri River samples. Macroinvertebrate samplers were positioned in the upstream, outfall and downstream locations near the continuous monitoring data sondes. The sampling locations were selected to assess the Missouri River water quality impacts during outfall discharges from presedimentation, filtration and lime softening processes. MDNR collected continuous pH, DO, turbidity, specific conductance, and temperature data in the upstream, outfall and downstream Missouri River

¹ National Academies of Sciences, Engineering, and Medicine. 2005. Endangered and Threatened Species of the Platte River. Washington, DC: The National Academies Press. <https://doi.org/10.17226/10978>

monitoring stations from August 30 to September 13, 2013. During this period, the JCDWTP was operating normally, which included the intermittent residuals flows from the presedimentation, filtration, and lime softening processes, and the Missouri River flows ranged from 40,400 cfs to 43,600 cfs as measured by the USGS Boonville, Missouri gage station.

The department collected weekly water quality grab samples from August 30 to September 13, 2013, that included total dissolved metals, total residual chlorine, and total suspended solids. The department also deployed multiple-plate water column macroinvertebrate samplers (similar to Hester-Dendy, (Hester 1962)) and rock basket macroinvertebrate samplers. Macroinvertebrate samplers were deployed from August 8, 2013 to September 9, 2013. The samplers provided comparisons of macroinvertebrate individuals, diversity, and abundance to assess similarities between upstream, outfall, and downstream conditions. The department calculated several biological metrics to evaluate and compare water column and rock basket macroinvertebrate results. For this report, only the results from the Quantitative Similarity Index (QSI) are summarized.

The QSI “compares two aquatic communities in terms of presence or absence of taxa, taking relative abundance of each taxon into account”. The metric ranges from 0 to 100%. The higher percentage indicates a greater similarity between two aquatic communities. The procedure suggests that when comparing a downstream aquatic community to an upstream control community, QSI scores below 65% indicate potential environmental change of the downstream community. QSI scores above 65% indicate similarity between the upstream control and downstream aquatic community.

For the water column samplers at Jefferson City, QSI scores for upstream, outfall, and downstream aquatic community comparisons ranged from 75.4% to 89.8%, indicating statistical similarities in all three communities. For the benthic samplers, there was strong similarity between upstream and downstream aquatic communities (QSI=93.3%). The QSI score comparing the upstream station to the outfall station was 63.3%, just below the suggested 65% threshold of similarity. The Jefferson City DWTP Study noted that one of the benthic samplers at the outfall station was buried which may have caused or contributed to a lower QSI score for the two comparisons to the outfall benthic community.

The North Plant DWTP Study, Florissant, Missouri, (Ashley R. Branham, 2014) showed very close similarity (81.7%) between the upstream station and the 250 feet downstream station. Comparisons of upstream to 500 feet downstream and 250 feet downstream to 500 feet downstream showed similarity at 55.9% and 38.2%, respectively. However, the Branham noted that these dissimilarities were likely attributed to malfunctions at the 500 feet downstream station where one Hester-Dendy array was snagged on the river bottom, and another was dislodged and located on the river’s edge in shallow water.

Another study, conducted in Omaha, Nebraska, on the Missouri River was also provided in the report. In 2012, Pennington and Associates (EE&T 2012) deployed artificial substrate (concrete cones) macroinvertebrate samplers in the Missouri River upstream and downstream of the Florence DWTP and Platte South DWTP residuals discharge outfalls. The samplers provided comparisons of macroinvertebrate individuals, diversity, and abundance to assess similarities between upstream, outfall, and downstream conditions. Macroinvertebrate community indicator metrics were assessed for each of the six Missouri River sampling stations in the Omaha Study. These metrics included average density, taxa richness, Ephemeroptera, Plecoptera and Tricoptera (EPT) taxa, and Hilsonoff’s Biotic Index (HBI). A higher value is indicative of more favorable biological conditions for average density, taxa richness and EPT taxa, whereas for the HBI, a lower score is considered to indicate less pollutant tolerance. The average macroinvertebrate density decreased downstream of the Florence DWTP and increased downstream of the Platte South DWTP. All other macroinvertebrate metrics indicate similar biologic conditions for all monitoring stations. The results of the Omaha Study indicate that the DWTP residuals discharges did not have an identified impact on the macroinvertebrate community.

The studies provided in the BPJ report showed that the solids discharge from those facilities were not causing significant invertebrate harm in the river. Because invertebrates are not affected by the discharge, no species-specific BPJ controls are warranted.

3. Terrestrial Biota

The Missouri River supports diverse terrestrial ecosystems. However, construction of dams, alternation of natural channel flows, reduced flow variation and sediment load, riparian degradation, and flood plain disconnect have resulted in the decline of several native species. This sub-section identifies potential impacts on species that might occupy suitable habitat in the vicinity of the facility.

4. Avian Species

There are eight threatened or endangered bird species identified with expected habitat ranges within the area at various times of the year. These are: *Haliaeetus leucocephalus* Bald Eagle; *Coccyzus erythrophthalmus* black-billed cuckoo; *Dolichonyx oryzivorus* bobolink; *Oporornis formosus* Kentucky warbler; *Tringa flavipes* lesser yellowlegs; *Protonotaria citrea* prothonotary warbler; *Melanerpes erythrocephalus* red-headed woodpecker, and *Hylocichla carolinus* wood thrush.

Although not of conservation concern, the Bald Eagle is federally protected by the Bald Eagle Protection Act. Bald Eagles may nest along or near the Missouri River at the site. The project is not anticipated to impact Bald Eagles. Of the listed bird species above, the lesser yellowlegs is the only species that prefers shorelines or marsh habitat. However, due to the proposed outfall modification, the future impact to suitable habitat for the lesser yellowlegs will be improved. All other listed species prefer habitat not impacted by the discharge.

Tringa flavipes, the lesser yellowlegs, are found within the family Scolopacidae (sandpipers) in the order Charadriiformes (shorebirds, gulls, terns). Lesser yellowlegs are streaked and spotted with gray and black on the upperparts, breast, and sides; the belly and rump are white. Legs are bright yellow. The bill is black, slender, straight, and less than one and a half times the length of the head, measured along the same line as the bill. These shorebirds prefer a variety of wetland and shoreline habitats. Most Missourians see lesser yellowlegs as they are foraging in shallow water in flooded pastures, flooded row-crop stubble, mudflats, shorelines, and marshes. The riverine areas near this facility have been known to provide habitat for this species. While the lesser yellowlegs is a common migrant, populations may be declining. Possible causes include loss of wetland habitat in this species' winter range.

5. Mammals

Four species of threatened or endangered mammals have expected habitat ranges within the area. Each of these mammals are bat species and include the *Myotis grisescens* (gray bat), *Myotis sodalist* (Indiana bat), *Myotis septentrionalis* (northern long-eared bat), and the tricolored bat (*Perioryotis subflavus*). These species often hibernate in caves or mines during winter months and roost in trees of riparian corridors of perennial rivers and streams during the summer months. Modifications required to bring the discharge into compliance with water quality standards are not anticipated to impact threatened and endangered bat species.

6. Insects

A single endangered insect species was identified with an expected habitat range within the area of CBDWTP: *Danaus plexippus* (monarch butterfly). Monarch butterfly populations are typically disrupted by the loss of native plants, especially species of milkweed that the insect commonly feeds on. The current operation of direct discharge to the Missouri River is not anticipated to impact the monarch butterflies and associated native plant food sources. Of all the alternative residuals treatment and disposal options evaluated in the BPJ study, continuing the current practice of direct discharge supports the least amount of monarch butterfly habitat degradation.

Biotic Summary:

The studies provided in the BPJ report showed that the solids discharge from those facilities were not causing significant impacts to localized biota. The movement of the end of the discharge pipe to below the water surface will serve to protect the Lesser Yellowlegs habitat; no other species requires protection nor will benefit from the pipe relocation.

VISUAL ASSESSMENT:

The wastewater discharge was reviewed for compliance with general criteria; there is RP for general criteria violations. While the discharge is visibly occluded, the discharge mixes with the river. The plume length varies based on the level of the river. Because this discharge is not time limited, then all stages of the river must be considered when developing effluent limits to protect for general criteria. There is some evidence of sand bar-type deposition occurring. Evaluating the presence of solids within the discharge and comparing that to the river is necessary to determine if numeric limits are required.

When evaluating TSS or suspended solids (SS) permit requirements, several factors are visited. 1) The discharge has visible solids in the effluent before it enters the Missouri River. 2) The discharge can be seen in the Missouri River for a variable amount of time, particularly at lower flows. However, the prohibition that the general criteria "shall be applicable to all waters of the state at all times including mixing zones" prohibits visible effluent in the river at any point, including the mixing zones. The first acute zone for mixing is the Zone of Initial Dilution (ZID) per 10 CSR 20-7.031(5)(A)4.B.(III)(b). Per the 2024 BPJ study, the facility indicated that they need to move the outfall to be below the water's surface to comply with the general criteria.

The water treatment residuals discharges from the facility were evaluated for potential narrative water quality criteria impacts. Harmful bottom deposits and unsightly color during lower flow conditions may occur. Therefore, extending outfall #001 to a lower elevation (subsurface during varying river conditions) in the river will address compliance issues with narrative criteria. Toxic conditions as a result of the discharge to the Missouri River are not anticipated based on results of recent aquatic life studies conducted on similar, nearby water treatment plants residuals discharges and by evaluating the numeric analytical samples for a variety of pollutants; see REASONABLE POTENTIAL section.

The BPJ study indicated this would require 10 years. The Department agrees that 10 years is appropriate for this activity because 1) capital investments and costs, including the bidding process, and 2) permitting required to be obtained from the United States Army Corps of Engineers (USACE) permitting can be lengthy. These costs were considered necessary in the BPJ study, therefore are deemed appropriate.

Sediments being carried through the water in a river or stream are a natural part of ecological cycles. Each river or stream will have a natural amount of suspended sediment that depends on the surrounding topography and potential for erosion. The BMP for the visual BAT BPJ is sub surfacing the outfall the pipe to eliminate the visual general criteria violation. This BAT determination is included in the special conditions. See additional information under TECHNOLOGY-BASED EFFLUENT LIMITS.

COSTS:

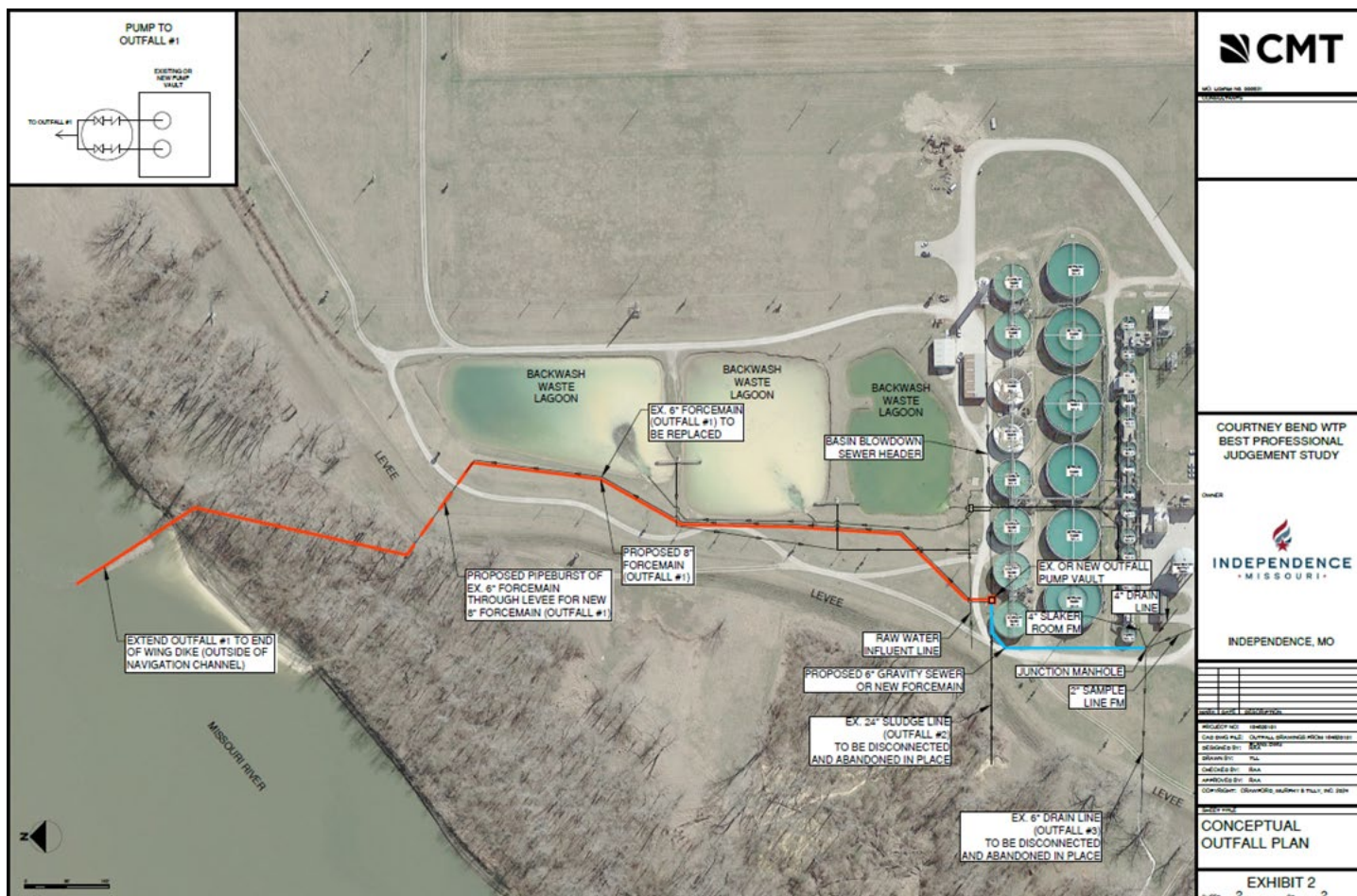
The BPJ study provided costs associated with achieving different levels of compliance. These data were used to inform the Department on the most appropriate best management practice.

Alternative	Description	Capital Cost (\$)	Annual O&M Cost (\$)	20-Year Present Worth Cost (\$)	Unit Cost (\$/Dry Ton)
1	Direct Discharge to River (Continuation of Current Process)	0	0	0	0
2	Direct Discharge to River (BMP)	\$3,321,000	\$10,226	\$3,658,022	\$75
3A	Lagoon Dewatering and Landfilling	\$18,561,000	\$11,648,119	\$264,103,315	\$5,388
3B	Lagoon Dewatering and Land Application	\$18,561,000	\$7,245,694	\$171,652,378	\$3,502
4A	Mechanical Dewatering and Landfilling	\$24,124,000	\$8,612,147	\$205,870,354	\$4,200
4B	Mechanical Dewatering and Land Application	\$29,425,000	\$5,407,739	\$143,777,814	\$2,933

The costs associated with alternatives 3A, 3B, 4A, and 4B exceeded what is necessary to protect water quality or biota. The Department reviewed the facility's determinations; the Department's determinations are following. Because this is a publicly owned facility, costs are an important aspect for each alternative. However, the alternative must also protect the Missouri River and biota from impacts. Overall, the BAT decision is Direct Discharge with BMPs, option #2. Alternatives 3A, 3B, 4A, and 4C are not necessary because there is no numeric RP for TSS. The Visual General Criteria exceedances will be addressed by moving the pipe to under the water's surface. Alternative #1 is not appropriate because it does not meet the minimum requirements of the Clean Water Act; the CWA includes requirements for visual degradation. Options #3 (A&B) and #4 (A&B) have costs exceeding what is necessary to meet the CWA requirements at this time, and costs would be above what the user can pay for finished drinking water. The minimum prescribed BMPs are enumerated in the permit as permit requirements. Additionally, land application, while valuable for some DWTP solids, land applying all solids is infeasible due to land area requirements. Land required for land application is approximately 1 ton per acre per year. According to the USDA², approximately 15,600,000 acres are dedicated farmland in Missouri, not all of which would accept lime solids. The generated lime solids for all drinking water treatment plants in Missouri far exceeds what farmland is available in Missouri thereby making land application of all lime solids infeasible. The facility may provide lime solids to farmers under the regulatory exemption pursuant to 10 CSR 20-6.015(3)(B)3, but it is not required under this permit.

The BAT decision, Option #2, is based on the BPJ study and the best professional judgment of the permit writer.

² <https://www.usda.gov/about-usda/news/blog/2017-missouri-census-agriculture-show-me-numbers>



The BMPs this permit prescribes, under Alternative 2 are appropriate, will protect water quality, and will ensure that no solids are visible in the receiving stream. These BMPs will also protect the lesser yellowlegs *Tringa flavipes* habitat, a shorebird found within Missouri.

NUMERIC EFFLUENT LIMITS:

The Missouri River's TSS levels vary greatly; measured in-stream TSS range up to 26,800 mg/L with an average of 739 mg/L. Settleable solids is not a necessary measurement performed instream on fast-moving rivers and streams, therefore there is no in-stream comparison for settleable solids in this write up; any controls implemented to reduce TSS will also reduce SS.

The BPJ report indicated that, according to the United State Geological Survey, in its natural state before dams were built, the Missouri River transported a sediment load averaging 250,000,000 dry tons per year. An average for any one day would be $250,000,000 / 365 = 684,932$ dry tons per day.

While the Missouri River is naturally high in TSS, discharges shall not cause or contribute to exceedances of visible turbidity of what is present in the river.

TSS effluent samples collected from September 15, 2022, to January 9, 2023 (# Samples = 34)

Minimum	0.5 mg/L
Median	17,025 mg/L
Average	32,957 mg/L
97 th Percentile	182,740 mg/L
99.5 th Percentile	252,040 mg/L
Maximum	265,900 mg/L

The above variability in data is likely due to grab samples and variability of treatment residuals. Future BMPs will be designed to reduce slugs. Additionally, future composite sampling will also determine the true discharge of solids where grab sampling does not capture the variability of the effluent over the day's time.

Total dry tons of solids discharged by year and averaged to the day.

Year	Dry Tons TSS* Annual Tot. Tons	Daily Average Tons	Daily Average Pounds	Average Flow MGD	1#/MG to mg/L	Daily Average mg/L
2020	28,283	77.48767123	154975.3425	1.485	0.1198264	12,505
2021	31,227	85.55342466	171106.8493	1.59	0.1198264	12,895
2022	32,346	88.61917808	177238.3562	1.425	0.1198264	14,904

* These solids are from the incoming water (source water) and from treatment additives. While the facility utilizes wells on site, solids are still entrained in the incoming water because the wells are alluvial wells. Alluvial wells³ are drilled into alluvial aquifers which are recharged by precipitation on the floodplain from neighboring bedrock layers, and from the rivers that flow over them. There is a direct relationship between the groundwater levels and the stage of the river water; however, the groundwater is not under the direct influence.

The three-year long-term average for TSS is calculated to be approximately 13,435 mg/L per day. Because biotic species may be affected by solids over the long term, this value was used to determine reasonable potential instead of the maximum TSS value (like toxics); there is no long-term RP for TSS.

IN-STREAM TSS INFORMATION

The Missouri River transports 684,932 dry tons of sediment per day on average. The Courtney Bend WTP anticipates producing up to an average of 691.2 dry tons of solids per day, of which a large proportion of these solids are naturally occurring from the source water. Therefore, the Courtney Bend WTP solids loading to the Missouri River is approximately 0.10% of the naturally occurring solids load of the Missouri River.

TECHNOLOGY BASED LIMITS

The current technology at the site was described in the table above. However, the facility will likely be required to treat more water for potable use each year and up to 54 million gallons per day. To estimate increases in annual solids discharged, the equation 3.2 tons of solids per million gallons of water produced multiplied by a 54 million gallons per day capacity, and multiplied by a conservative factor of 4 yields an average tons of solids produced of 691.2 tons/day.
(3.2*54)*4=691.2

FINAL EFFLUENT LIMITS DISCUSSION

Monitoring only for the daily maximum, and 691.2 tons per day monthly average established pursuant to 10 CSR 20-7.015(9)(I)1 utilizing best professional judgment. The effluent limits are appropriate based on the activities at the site. The TBEL effluent limits calculated are protective of the receiving stream; therefore will be applied per 40 CFR 122.44(b)(1) and 10 CSR 20-7.015(9)(A) respectively. TSS is the indicator pollutant for SS and TSS limits are applied preferentially pursuant to 40 CFR 122.44(d)(1)(vi)(C), even though there is no numeric RP for TSS or SS. Based on the data submitted, the facility is able to meet this average.

The department has several methods available to calculate TBELs. However, with limited data, it is important to not be overly conservative because compliance with the TBEL is based on technology, not water quality. See TECHNOLOGY-BASED EFFLUENT LIMITS and PROVISIONAL AND PERFORMANCE-BASED EFFLUENT LIMITS sections in Part III for more information; and the CURRENT TECHNOLOGY – PERFORMANCE BASED LIMITS calculations above. Additionally, best management practices (considered technology) are expected to improve over the course of the permit term but treatment capacity is also expected to increase.

Because there are only 34 data points available with variability, the department has determined that applying the TBEL limit as the monthly average, to be appropriate.

The limit will ensure that the current technology is maintained pursuant to 40 CFR 122.41(e). Feasibility of these final TBEL values was compared to the requirements in 40 CFR 122.21(e) for proper operation and maintenance. A different TBEL may be established in future permits when more data can be evaluated that is specific to this site and the site has reached its maximum potable water production capabilities.

Because of how the data was compiled in the previous permit, “Tons of TSS” is a total of all the discharge; it is not a net limit. The Source Water Solids parameter can be used to determine what percentage of the discharge is river solids; and what percentage is additives. Future TSS limits may incorporate net limits.

³ <https://dnr.mo.gov/document-search/groundwater-provinces-missouri-mississippi-missouri-river-alluvium-groundwater-province-pub2997/pub2997>

CONVENTIONAL:**Chlorine, Total Residual (TRC)**

209 µg/L daily maximum, 104 µg/L monthly average, after SOC. The previous permit did not require monitoring for this pollutant. The facility reported from non-detect to 2,190 µg/L in the BPJ study. There are no technology limits established for this parameter therefore water quality limits are the most protective. This is a parameter which can vary based on additives used, one/week sampling is required, see note ‡, after the SOC. The effluent limits are calculated as follows; however, the department has established an ML for this parameter; the ML is 130 µg/L, see note ‡ in the permit and will be applied only to the monthly average. This parameter must be measured within the 15-minute holding time. If the facility needs to install dechlorination equipment, a construction permit is usually not required pursuant to 10 CSR 20-6.010(5)(B)10. The effluent limits are appropriate based on the activities at the site and are established pursuant to 10 CSR 20-7.015(9)(I)1 utilizing best professional judgment and are protective of the receiving waterbody's uses. Chlorine must be sampled using grab sampling methods.

The facility has proposed chemical dechlorination with sodium bisulfite or sodium sulfite. At a discharge of 2.5 MGD only about one minute of detention time is required for chemical dechlorination per the Ten States Standards which should be achievable to implement at the facility. The choice of a particular dechlorination chemical is site-specific depending on the nature and volume of the wastewater, strength of chlorine residual, and distance from the receiving water, however sodium bisulfite was assumed for the analysis presented in this report. A prefabricated building to protect the dechlorination equipment, chemical feed equipment skid with dual pumps, and chemical costs will need to be considered for the 20-year life cycle costs. The cost for dechlorinating the discharge water to meet TRC limitations includes the following components:

- Bulk Storage Tank (1,500 gallon)
- Chemical feed equipment skid (dual pumps for redundancy)
- Building to house the dechlorination equipment.
- Electrical improvements and SCADA upgrades
- Site civil improvements including a structural building pad

The facility indicated it will take 10 years to re-route outfall #003 and install the necessary equipment for dechlorination. A schedule of compliance is granted for this parameter; see Permit Part C and fact sheet Part III SCHEDULE OF COMPLIANCE for more information. During the monitoring only interim limits, the facility will sample monthly. Once the limits are implemented after the SOC, sampling will be weekly.

Acute AQL: 19 µg/L

Chronic AQL: 11 µg/L

Acute WLA: $C_e = ((4.642 \text{ cfsDF} + 46.416858 \text{ cfsZID}) * 19 - (46.416858 \text{ cfsZID} * 0 \text{ background})) / 4.642 \text{ cfsDF} = 209$

Chronic WLA: $C_e = ((4.642 \text{ cfsDF} + 4,817.8 \text{ cfsMZ}) * 11 - (4,817.8 \text{ cfsMZ} * 0 \text{ background})) / 4.642 \text{ cfsDF} = 2831.096$

LTAa: $WLAa * LTAa \text{ multiplier} = 209 * 0.321 = 67.106$ [CV: 0.6, 99th %ile]

LTAc: $WLAc * LTAc \text{ multiplier} = 2831.096 * 0.527 = 1493.215$ [CV: 0.6, 99th %ile]

use most protective LTA: 67.106

Daily Maximum: $MDL = LTA * MDL \text{ multiplier} = 67.106 * 3.114 = 209 \text{ µg/L}$ [CV: 0.6, 99th %ile]

Monthly Average: $AML = LTA * AML \text{ multiplier} = 67.106 * 1.552 = 104.178 \text{ µg/L}$ [CV: 0.6, 95th %ile, n=4]

pH

6.5 to 10.5 SU – instantaneous grab sample. The previous permit did not require monitoring for this pollutant. This is a parameter which can vary based on additives used, one/week sampling is required, see note ‡. This parameter must be measured within the 15-minute holding time. The facility reported the maximum pH was 9.9 in the BPJ study. On March 5, 2025, the department approved the separate pH study, and this permit implements the limits. The department has established RP for pH using RPD because of treatment chemicals and data provided. pH remains a fundamental water quality indicator. Limitations in this permit will also protect against aquatic organism toxicity, downstream water quality issues, human health hazard contact, and negative physical changes in accordance with the general criteria at 10 CSR 20-7.031(4) and the Clean Water Act's (CWA) goal of 100% fishable and swimmable rivers and streams. Limitation provisions found at 10 CSR 20-7.015(9)(I)1 for drinking water treatment plant effluent allow for increased pH if a water-quality study is conducted.

DISINFECTION BY-PRODUCTS:

Bromodichloromethane, Chlorodibromomethane, Bromoform, and Chloroform, Total Trihalomethanes

Annual sampling and reporting. The department evaluated the potential for discharge of disinfection byproducts; bromodichloromethane, bromoform, chlorodibromomethane, and chloroform. Additionally, Total Trihalomethane will be reported. Samples for the individual and total parameters will be collected and reported annually. TTHM and DBPs are pollutants of concern for this industry. Total Trihalomethanes are a class of substances that are inadvertently generated during the treatment process. Missouri has water quality standards for total trihalomethanes at 80 µg/L, and for each of the following found within that group: bromodichloromethane (0.56 µg/L), chlorodibromomethane (0.41 µg/L), bromoform (4.3 µg/L), and chloroform (5.7 µg/L).

METALS:

Aluminum, Total Recoverable

The facility reported 2,010 µg/L in the application, but there is no RP for this parameter. Aluminum was chosen for additional sampling because it is a parameter which is found at relatively high levels in the source water. Aluminum is also a pollutant of concern for facilities using lime softening in the process. Annual monitoring and reporting.

APPENDIX A

NPDES Permit Rating Work Sheet

NPDES No.: **MO0003646**

Facility Name:

Courtney Bend Drinking Water Treatment Plant

City: **Independence, MO**

Receiving Water: **Missouri River**

Reach Number: **10300101000284**

- ☐ Regular Addition
☐ Discretionary Addition
☐ Score change, but no status change
☐ Deletion

Is this facility a steam electric power plant (SIC=4911) with one or more of the following characteristics?

1. Power output 500 MW or greater (not using a cooling pond/lake)
2. A nuclear power plant
3. Cooling water discharge greater than 25% of the receiving stream's 7Q10 flow rate
☐ YES; score is 600 (stop here) ☒ NO (continue)

Is this permit for a municipal separate storm sewer serving a population greater than 100,000?

- ☐ YES; score is 700 (stop here)
☒ NO (continue)

FACTOR 1: Toxic Pollutant Potential

PCS SIC Code: **4941**

Primary SIC Code:

Other SIC Codes:

Industrial Subcategory Code: (Code 000 if no subcategory)

Determine the Toxicity potential from Appendix A. (Be sure to use the TOTAL toxicity potential column and check one)

Toxicity Group	Code	Points	Toxicity Group	Code	Points	Toxicity Group	Code	Points
☐ No process waste streams	0	0	☐ 3.	3	15	☒ 7.	7	35
☐ 1.	1	5	☐ 4.	4	20	☐ 8.	8	40
☐ 2.	2	10	☐ 5.	5	25	☐ 9.	9	45
			☐ 6.	6	30	☐ 10.	10	50

Code Number Checked:

Total Points Factor 1: **35**

FACTOR 2: Flow/Stream Flow Volume (Complete either Section A or Section B; check only one)

Section A - Wastewater Flow Only Considered

Wastewater type (See Instructions)	Code	Points
Type I: Flow < 5 MGD	☐ 11	0
Flow 5 to 10 MGD	☐ 12	10
Flow > 10 to 50 MGD	☐ 13	20
Flow > 50 MGD	☐ 14	30
Type II: Flow < 1 MGD	☐ 21	10
Flow 1 to 5 MGD	☒ 22	20
Flow > 5 to 10 MGD	☐ 23	30
Flow > 10 MGD	☐ 24	50
Type III: Flow < 1 MGD	☐ 31	0
Flow 1 to 5 MGD	☐ 32	10
Flow > 5 to 10 MGD	☐ 33	20
Flow > 10 MGD	☐ 34	30

Section B - Wastewater and Stream Flow Considered

Wastewater type (See Instructions)	Percent of Instream Wastewater Concentration at Receiving Stream Low Flow	Code	Points
Type III:	<10%	☐ 41	0
	≥10% to <50%	☐ 42	10
	≥50%	☐ 43	20
Type II:	<10%	☒ 51	0
	≥10% to <50%	☐ 52	20
	≥50%	☐ 53	30

Code Checked from Section A or B:

Total Points Factor 2: **20**

NPDES Permit Rating Work Sheet

FACTOR 3: Conventional Pollutants (only when limited by the permit)

NPDES No.: **MO0003646**

A. Oxygen Demanding Pollutants (check one) ☐ BOD ☐ COD ☐ OTHER: **TRC**

Permit Limits (check one)			Code	Points
☒	<100 lbs/day		1	0
☐	100 to 1000 lbs/day		2	5
☐	>1000 to 3000 lbs/day		3	15
☐	>3000 lbs/day		4	20

Code Checked:
Points Scored: **0**

B. Total Suspended Solids (TSS)

Permit Limits (check one)			Code	Points
☐	<100 lbs/day		1	0
☐	100 to 1000 lbs/day		2	5
☐	>1000 to 5000 lbs/day		3	15
☒	>5000 lbs/day		4	20

Code Checked:
Points Scored: **20**

C. Nitrogen Pollutants (check one)

☐ Ammonia

☐ OTHER:

Permit Limits (check one)			Nitrogen Equivalent	Code	Points
☒	<300 lbs/day			1	0
☐	300 to 1000 lbs/day			2	5
☐	>1000 to 3000 lbs/day			3	15
☐	>3000 lbs/day			4	20

Code Checked:
Points Scored: **0**

Total Points Factor 3: **20**

FACTOR 4: Public Health Impact

Is there a public drinking water supply located within 50 miles downstream of the effluent discharge (this includes any body of water to which the receiving water is a tributary)? A public drinking water supply may include infiltration galleries, or other methods of conveyance that ultimately get water from the above referenced supply.

- ☐ YES (if yes, check toxicity potential number below)
☒ NO (if no, go to Factor 5)

Determine the human health toxicity potential from Appendix A. Use the same SIC Code and subcategory reference as in Factor 1. (Be sure to use the human health toxicity group column and check one below)

Toxicity Group	Code	Points	Toxicity Group	Code	Points	Toxicity Group	Code	Points
☐ No process waste streams	0	0	☐ 3.	3	0	☐ 7.	7	15
☐ 1.	1	0	☐ 4.	4	0	☐ 8.	8	20
☐ 2.	2	0	☐ 5.	5	5	☐ 9.	9	25
			☐ 6.	6	10	☐ 10.	10	30

Code Number Checked:
Total Points Factor 4: **0**

NPDES Permit Rating Work Sheet

FACTOR 5: Water Quality Factors

NPDES No.: **MO0003646**

- A. Is (or will) one or more of the effluent discharge limits based on water quality factors of the receiving stream (rather than technology-based federal effluent guidelines, or technology-based state effluent guidelines), or has a wasteload allocation been assigned to the discharge?

	Code	Points
☒ YES	1	10
☐ NO	2	0

- B. Is the receiving water in compliance with applicable water quality standards for pollutants that are water quality limited in the permit?

	Code	Points
☒ YES	1	0
☐ NO	2	5

- C. Does the effluent discharged from this facility exhibit the reasonable potential to violate water quality standards due to whole effluent toxicity?

	Code	Points
☐ YES	1	10
☒ NO	2	0

Code Number Checked: A. B. C.

Total Points Factor 5 A. **10** + B. **0** + C. **0** = **10**

FACTOR 6: Proximity to Near Coastal Waters

- A. Base Score: Enter flow code here (from Factor 2):

Enter the multiplication factor that corresponds to the flow code:

Check appropriate facility HPRI Code (from PSC):

HPRI#	Code	HPRI Score
☐ 1	1	20
☐ 2	2	0
☐ 3	3	30
☐ 4	4	0
☐ 5	5	20

Flow code	Multiplication Factor
11, 31, or 41	0.00
12, 32, or 42	0.05
13, 33, or 43	0.10
14 or 34	0.15
21 or 51	0.10
22 or 52	0.30
23 or 53	0.60
24	1.00

HPRI Code Checked:

Base Score (HPRI Score) **0** x (Multiplication Factor) **0.1** = **0** (Total Points)

- B. Additional Points – NEP Program

For a facility that has an HPRI code of 3, does the facility discharge to one of the estuaries enrolled in the National Estuary Protection (NEP) program (see instructions) or the Chesapeake Bay?

	Code	Points
☐ YES	1	10
☐ NO	2	0

- C. Additional Points – Great Lakes Area of Concern

For a facility that has an HPRI code of 5, does the facility discharge any of the pollutants of concern into one of the Great Lakes' 31 areas of concern (see instructions)?

	Code	Points
☐ YES	1	10
☐ NO	2	0

Code Number Checked: A. B. C.

Total Points Factor 6 A. **0** + B. **0** + C. **0** = **0**

NPDES Permit Rating Work Sheet

Score Summary

NPDES No.: MO0003646

Factor	Description	Total Points
1.	Toxic Pollutant Potential	35
2.	Flow/Streamflow Volume	20
3.	Conventional Pollutants	20
4.	Public Health Impacts	0
5.	Water Quality Factors	10
6.	Proximity to Near Coastal Waters	0
TOTAL (Factors 1 through 6)		85

S1. Is the total score equal to or greater than 80? ☒ YES (Facility is a major) ☐ NO

S2. If the answer to the above question is no, would you like this facility to be discretionary major?

☐ NO

☐ YES (Add 500 points to the above score and provide reason below:

Reason:

NEW SCORE:

85

OLD SCORE:

Pam Hackler

Permit Reviewer's Name

(573) 526-3386

Phone Number

03/26/2025

Date

PART V. ADMINISTRATIVE REQUIREMENTS

PUBLIC NOTICE

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 this Missouri State Operating Permit. The proposed determinations are tentative pending public comment. The department shall give public notice when a draft permit has been prepared for renewals and major modifications. Additionally, a public notice will be posted if a public hearing is to be held because of a significant degree of interest in or with 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 facility must be notified of the denial in writing. <https://dnr.mo.gov/water/what-were-doing/public-notices> 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 wishing to submit comments regarding this proposed operating permit, please refer to the Public Notice page located at the front of this draft operating permit which gives direction on how and where to submit appropriate comments. All comments must be in written form.

- ✓ The Public Notice period for this operating permit begins January 30, 2026, and ended March 2, 2026. No comments were received.

DATE OF FACT SHEET: MARCH 4, 2026

COMPLETED BY:

PAM HACKLER, ENVIRONMENTAL SCIENTIST | OPERATING PERMITS SECTION - INDUSTRIAL UNIT
MISSOURI DEPARTMENT OF NATURAL RESOURCES | WATER PROTECTION PROGRAM
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STANDARD CONDITIONS FOR NPDES PERMITS
ISSUED BY
THE MISSOURI DEPARTMENT OF NATURAL RESOURCES
MISSOURI CLEAN WATER COMMISSION
REVISED
AUGUST 1, 2014

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.
4. **Test Procedures.** The analytical and sampling methods used shall conform 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 four (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.**
 - a. 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(a)(1);
 - 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.



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MISSOURI CLEAN WATER COMMISSION
REVISED
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- 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.
 - iii. 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 28th day of the month following the end of the reporting period.
- 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.
 - ii. 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 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 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.

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



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- 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.
- d. It is unlawful for any person to cause or permit any discharge of water 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 permittee 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.



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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:
 - a. 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.**
 - a. 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 non-compliance 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.



MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM
FORM A – APPLICATION FOR NONDOMESTIC PERMIT
UNDER MISSOURI CLEAN WATER LAW

RECEIVED

SEP 05 2018

Water Protection Program

FOR AGENCY USE ONLY

CHECK NUMBER

DATE RECEIVED

FEE SUBMITTED

9-5-18

088

NOTE: PLEASE READ THE ACCOMPANYING INSTRUCTIONS BEFORE COMPLETING THIS FORM.

1. This application is for: (Select only one.)

- ☐ An operating permit for a new or unpermitted facility. Number of original construction permit: MO _____
☒ Renewal of an operating permit. Permit number: MO 0003646 Expiration date: 7/25/1996
☐ Modification of an operating permit. Permit number: MO _____ Modification reason: _____

1.1 Is the appropriate fee included with the application? (See instructions for appropriate fee.) ☐ Yes ☐ No

2. FACILITY

NAME	TELEPHONE NUMBER WITH AREA CODE		
City of Independence Courtney Bend Water Treatment Plant	816-325-7640		
	EMAIL		
PHYSICAL ADDRESS (PHYSICAL)	CITY	STATE	ZIP CODE
14700 Cement City Rd	Sugar Creek	MO	64058

3. OWNER

NAME	TELEPHONE NUMBER WITH AREA CODE		
City of Independence	816-325-7698		
	EMAIL		
	KKelley@indepmo.org		
MAILING ADDRESS	CITY	STATE	ZIP CODE
17221 E. 23rd Street	Independence	MO	64057

3.1 Do you want to review draft permit prior to public notice? ☒ Yes ☐ No

4. CONTINUING AUTHORITY

NAME	TELEPHONE NUMBER WITH AREA CODE		
Same as owner			
	EMAIL		
MAILING ADDRESS	CITY	STATE	ZIP CODE

5. OPERATOR

NAME	CERTIFICATE NUMBER	TELEPHONE NUMBER WITH AREA CODE	
Same as owner			
	EMAIL		
MAILING ADDRESS	CITY	STATE	ZIP CODE

6. FACILITY CONTACT

NAME	TITLE	TELEPHONE NUMBER WITH AREA CODE
Karen Kelley	Production Manager	816-325-7698
	EMAIL	
	KKelley@indepmo.org	

7. ADDITIONAL FACILITY INFORMATION

7.1 Legal description of outfalls (Attach additional sheets, if necessary.)

001 SE 1/4 SE 1/4 Sec 11 T 50N R 32W Jacks County
UTM Coordinates Easting (X): _____ Northing (Y): _____

For Universal Transverse Mercator (UTM), Zone 15 North referenced to North American Datum 1983 (NAD83)

002 SE 1/4 SE 1/4 Sec 11 T 50N R 32W Jacks County
UTM Coordinates Easting (X): _____ Northing (Y): _____

003 SE 1/4 SE 1/4 Sec 11 T 50N R 32W Jacks County
UTM Coordinates Easting (X): _____ Northing (Y): _____

004 _____ 1/4 _____ 1/4 Sec _____ T _____ R _____ _____ County
UTM Coordinates Easting (X): _____ Northing (Y): _____

7.2 Primary standard industrial classification (SIC) and North American Industrial Classification System (NAICS) codes

001 – SIC 4941 and NAICS 221310 002 – SIC 4941 and NAICS 221310
003 – SIC 4941 and NAICS 221310 004 – SIC _____ and NAICS _____

8. ADDITIONAL FORMS AND MAPS NECESSARY TO COMPLETE APPLICATION (Complete all applicable forms.)			
A.	Is your facility a manufacturing, commercial, mining or silviculture waste treatment facility? If yes, complete Form C or 2F. (2F is EPA's Application for Storm Water Discharges Associated with Industrial Activity.)	Yes ☐	No ☒
B.	Is application for stormwater discharges only? If yes, complete Form C or 2F.	Yes ☐	No ☒
C.	Is your facility considered a "primary industry" under EPA guidelines? If yes, complete Forms C or 2F and D.	Yes ☐	No ☒
D.	Is wastewater land-applied? If yes, complete Form I.	Yes ☐	No ☒
E.	Are biosolids, sludge, ash or residuals generated, treated, stored or land-applied? If yes, complete Form R.	Yes ☐	No ☒
F.	If you are a Class IA CAFO, disregard Parts D and E, above, but attach any revisions to the nutrient management plan.		
G.	Attach a map showing all outfalls and the receiving stream at 1" = 2,000' scale.		
9. ELECTRONIC DISCHARGE MONITORING REPORT (eDMR) SUBMISSION SYSTEM			
Per 40 CFR Part 127 National Pollutant Discharge Elimination System (NPDES) Electronic Reporting Rule, permittee shall report effluent limits and monitoring via an electronic system to ensure timely, complete, accurate and nationally consistent data. Check one of the following for this application to be considered complete. (Check only one.) To access the facility participation package, visit dnr.mo.gov/env/wpp/edmr.htm. ☒ You completed and submitted with this permit application the required documentation to participate in the eDMR system. ☐ You previously submitted required documentation to participate in the eDMR system and/or you currently use the eDMR system. ☐ You submitted a written request for a waiver from electronic reporting. See instructions for information regarding waivers.			
9. DOWNSTREAM LANDOWNER(S) Attach additional sheets as necessary. See Instructions. PLEASE SHOW LOCATION ON MAP. SEE 8(D) ABOVE.			
NAME City of Sugar Creek			
ADDRESS 103 S. Sterling		CITY Sugar Creek	STATE MO
		ZIP CODE 64054	
11. I certify that I am familiar with the information contained in this application. To the best of my knowledge and belief, such information is true, complete and accurate. If granted this permit, I agree to abide by the Missouri Clean Water Law and all rules, regulations, orders and decisions subject to any legitimate appeal to the Missouri Clean Water Commission available to the applicant under the Missouri Clean Water Law.			
NAME AND OFFICIAL TITLE (TYPE OR PRINT) <i>Karen Kelley Production Manager</i>		TELEPHONE NUMBER WITH AREA CODE <i>816-325-7698</i>	
SIGNATURE <i>Karen Kelley</i>		DATE SIGNED <i>8/29/18</i>	

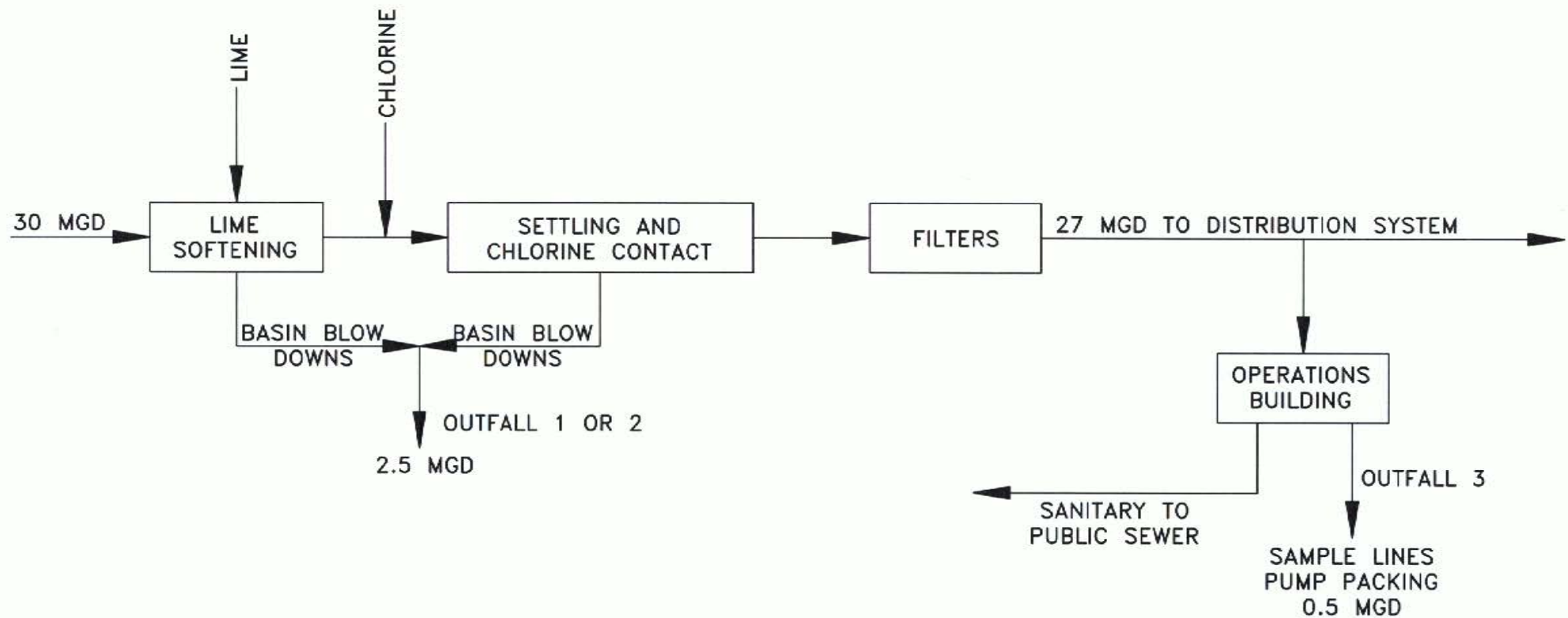
MO 780-1479 (04-18)

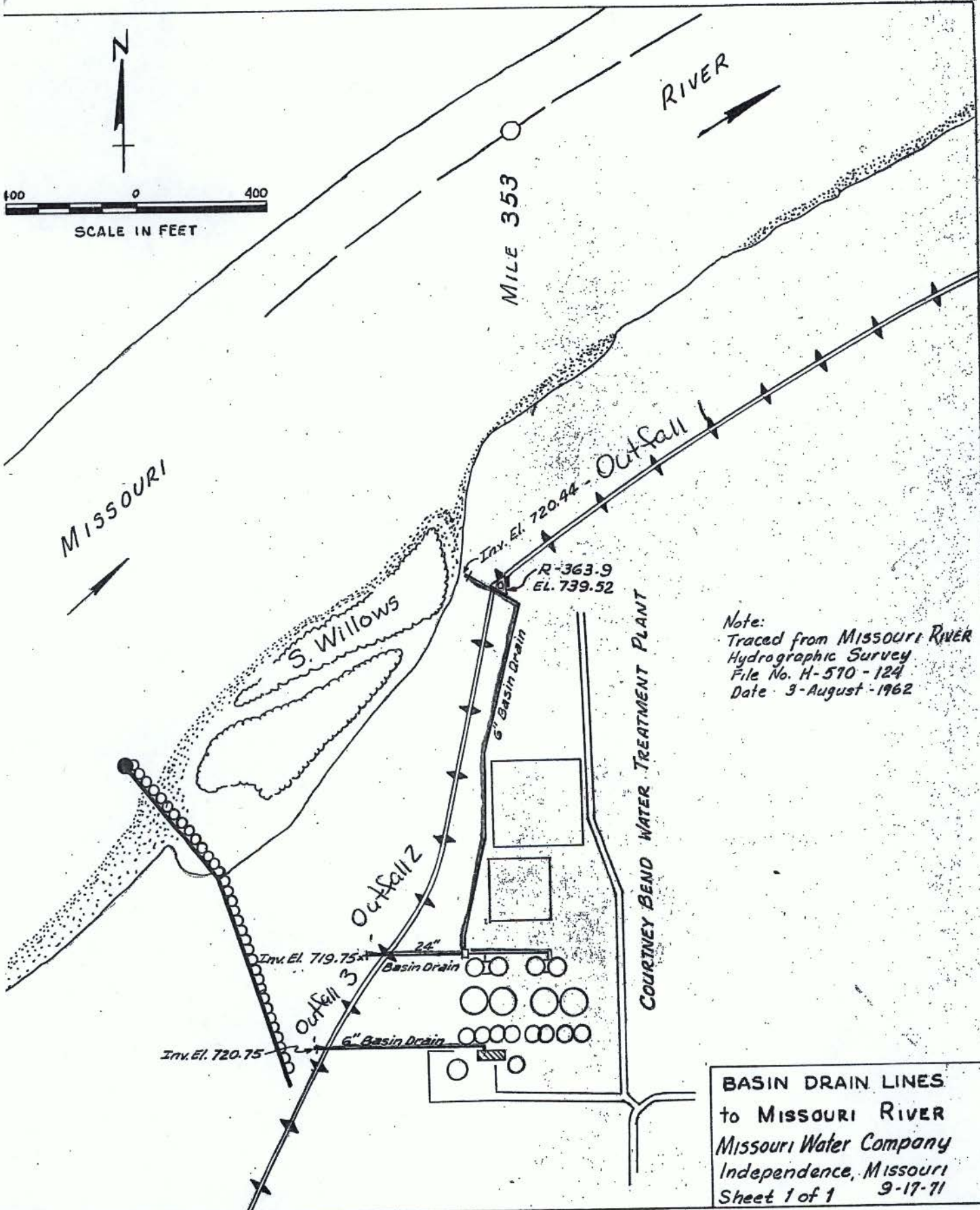
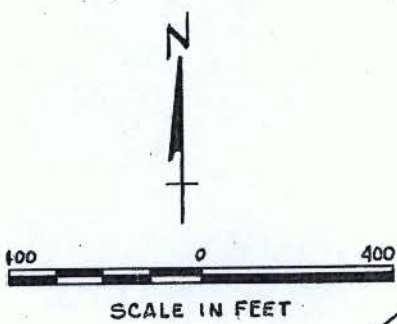
**BEFORE MAILING, PLEASE ENSURE ALL SECTIONS ARE COMPLETE.
 ALSO INCLUDE APPLICABLE ADDITIONAL FORMS.**
 Submitting an incomplete application may result in the application being returned.

HAVE YOU INCLUDED THE FOLLOWING?

- | | |
|---|--|
| ☐ Appropriate fees
☐ Map at 1" = 2000' scale
☐ Signature
☐ Form C or 2F, if applicable
☐ Form D, if applicable | ☐ Form I (Irrigation), if applicable
☐ Form R (Sludge), if applicable
☐ Revised nutrient management plan, if applicable |
|---|--|

2017 AVERAGE FLOWS





Note:
Traced from Missouri River
Hydrographic Survey
File No. H-570-124
Date 3-August-1962

BASIN DRAIN LINES
to Missouri River
Missouri Water Company
Independence, Missouri
Sheet 1 of 1 9-17-71

City of Independence

WATER DEPARTMENT

17221 E. 23RD ST. S. • P.O. BOX 410 • INDEPENDENCE, MISSOURI 64051-0380 • (816) 325-7700
www.ci.independence.mo.us FAX • (816) 325-7699



Amberly Schulz
Environmental Specialist
Missouri Department of Natural Resources
Water Protection Program
Operating Permits Section
P.O. Box 176
Jefferson City, MO 65102-0176

August 29, 2018

Dear Ms. Schulz,

Attached please find the completed application forms for renewal of Permit MO 0003646 for the City of Independence Courtney Bend Water Plant. No chemical analysis is included for Outfall 2 because this outfall is used when treatment basins are being drained for maintenance or cleaning and was not in use during the period that samples were collected.

Please let me know if you need additional information.

Thank you.

Sincerely,

Karen Kelley
Production Manager
Independence Water Department
17221 E. 23rd Street
Independence, MO 64057

RECEIVED
SEP 05 2018
Water Protection Program

RECEIVED

SEP 05 2018



MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM, WATER POLLUTION BRANCH
FORM C – APPLICATION FOR DISCHARGE PERMIT –
MANUFACTURING, COMMERCIAL, MINING,
SILVICULTURE OPERATIONS, PROCESS AND STORMWATER

FOR AGENCY USE ONLY

CHECK NO.

DATE RECEIVED

FEE SUBMITTED

NOTE: DO NOT ATTEMPT TO COMPLETE THIS FORM BEFORE READING THE ACCOMPANYING INSTRUCTIONS

1.00 NAME OF FACILITY

City of Independence Courtney Bend Water Plant

1.10 THIS FACILITY IS NOW IN OPERATION UNDER MISSOURI OPERATING PERMIT NUMBER

MO-0003646

1.20 THIS IS A NEW FACILITY AND WAS CONSTRUCTED UNDER MISSOURI CONSTRUCTION PERMIT NUMBER (COMPLETE ONLY IF THIS FACILITY DOES NOT HAVE AN OPERATING PERMIT).

2.00 LIST THE STANDARD INDUSTRIAL CLASSIFICATION (SIC) CODES APPLICABLE TO YOUR FACILITY (FOUR DIGIT CODE)

A. FIRST 4941 B. SECOND _____
C. THIRD _____ D. FOURTH _____

2.10 FOR EACH OUTFALL GIVE THE LEGAL DESCRIPTION

OUTFALL NUMBER (LIST) SE 1/4 SE 1/4 SEC 11 T 50N R 32W Jackson COUNTY

2.20 FOR EACH OUTFALL LIST THE NAME OF THE RECEIVING WATER

OUTFALL NUMBER (LIST) 1,2,3 RECEIVING WATER Missouri River

2.30 BRIEFLY DESCRIBE THE NATURE OF YOUR BUSINESS

Public drinking water plant.

2.40 CONTINUED

C. EXCEPT FOR STORM RUNOFF, LEAKS OR SPILLS, ARE ANY OF THE DISCHARGES DESCRIBED IN ITEMS A OR B INTERMITTENT OR SEASONAL?

☒ YES (COMPLETE THE FOLLOWING TABLE)

☐ NO (GO TO SECTION 2.50)

1. OUTFALL NUMBER <i>(list)</i>	2. OPERATION(S) CONTRIBUTING FLOW <i>(list)</i>	3. FREQUENCY		4. FLOW				C. DURATION <i>(in days)</i>
				A. FLOW RATE <i>(in mgd)</i>		B. TOTAL VOLUME <i>(specify with units)</i>		
		A. DAYS PER WEEK <i>(specify average)</i>	B. MONTHS PER YEAR <i>(specify average)</i>	1. LONG TERM AVERAGE	2. MAXIMUM DAILY	4. LONG TERM DAILY	3. MAXIMUM AVERAGE	
1	Lime residuals from softening	7	12	2.5				
2	Overflow residuals and water from draining basins	1	7	0.5				
3	Water from pump packing and sample lines	7	12	0.5				

2.50 MAXIMUM PRODUCTION

A. DOES AN EFFLUENT GUIDELINE LIMITATION PROMULGATED BY EPA UNDER SECTION 304 OF THE CLEAN WATER ACT APPLY TO YOUR FACILITY?

☒ YES (COMPLETE B.)

☐ NO (GO TO SECTION 2.60)

B. ARE THE LIMITATIONS IN THE APPLICABLE EFFLUENT GUIDELINES EXPRESSED IN TERMS OF PRODUCTION (OF OTHER MEASURE OF OPERATION)?

☐ YES (COMPLETE C.)

☒ NO (GO TO SECTION 2.60)

C. IF YOU ANSWERED "YES" TO B. LIST THE QUANTITY THAT REPRESENTS AN ACTUAL MEASUREMENT OF YOUR MAXIMUM LEVEL OF PRODUCTION, EXPRESSED IN THE TERMS AND UNITS USED IN THE APPLICABLE EFFLUENT GUIDELINE AND INDICATE THE AFFECTED OUTFALLS.

1. MAXIMUM QUANTITY			2. AFFECTED OUTFALLS (list outfall numbers)
A. QUANTITY PER DAY	B. UNITS OF MEASURE	C. OPERATION, PRODUCT, MATERIAL, ETC. (specify)	

2.60 IMPROVEMENTS

A. ARE YOU NOW REQUIRED BY ANY FEDERAL, STATE OR LOCAL AUTHORITY TO MEET, ANY IMPLEMENTATION SCHEDULE FOR THE CONSTRUCTION, UPGRADING OR OPERATION OF WASTEWATER TREATMENT EQUIPMENT OR PRACTICES OR ANY OTHER ENVIRONMENTAL PROGRAMS THAT MAY AFFECT THE DISCHARGES DESCRIBED IN THIS APPLICATION? THIS INCLUDES, BUT IS NOT LIMITED TO, PERMIT CONDITIONS, ADMINISTRATIVE OR ENFORCEMENT ORDERS, ENFORCEMENT COMPLIANCE SCHEDULE LETTERS, STIPULATIONS, COURT ORDERS AND GRANT OR LOAN CONDITIONS.

☐ YES (COMPLETE THE FOLLOWING TABLE)

☒ NO (GO TO 3.00)

1. IDENTIFICATION OF CONDITION AGREEMENT, ETC.	2. AFFECTED OUTFALLS		3. BRIEF DESCRIPTION OF PROJECT	4. FINAL COMPLIANCE DATE	
				A. REQUIRED	B. PROJECTED

B. OPTIONAL: YOU MAY ATTACH ADDITIONAL SHEETS DESCRIBING ANY ADDITIONAL WATER POLLUTION CONTROL PROGRAMS (OR OTHER ENVIRONMENTAL PROJECTS WHICH MAY AFFECT YOUR DISCHARGES) YOU NOW HAVE UNDER WAY OR WHICH YOU PLAN. INDICATE WHETHER EACH PROGRAM IS NOW UNDER WAY OR PLANNED, AND INDICATE YOUR ACTUAL OR PLANNED SCHEDULES FOR CONSTRUCTION.

☐ MARK "X" IF DESCRIPTION OF ADDITIONAL CONTROL PROGRAMS IS ATTACHED.

3.00 INTAKE AND EFFLUENT CHARACTERISTICS

A. & B. SEE INSTRUCTIONS BEFORE PROCEEDING – COMPLETE ONE TABLE FOR EACH OUTFALL – ANNOTATE THE OUTFALL NUMBER IN THE SPACE PROVIDED.
NOTE: TABLE 1 IS INCLUDED ON SEPARATE SHEETS NUMBERED FROM PAGE 6 TO PAGE 7.

C. USE THE SPACE BELOW TO LIST ANY OF THE POLLUTANTS LISTED IN PART B OF THE INSTRUCTIONS, WHICH YOU KNOW OR HAVE REASON TO BELIEVE IS DISCHARGED OR MAY BE DISCHARGED FROM ANY OUTFALL. FOR EVERY POLLUTANT YOU LIST, BRIEFLY DESCRIBE THE REASONS YOU BELIEVE IT TO BE PRESENT AND REPORT ANY ANALYTICAL DATA IN YOUR POSSESSION.

[illegible]

3.10 BIOLOGICAL TOXICITY TESTING DATA

DO YOU HAVE ANY KNOWLEDGE OR REASON TO BELIEVE THAT ANY BIOLOGICAL TEST FOR ACUTE OR CHRONIC TOXICITY HAS BEEN MADE ON ANY OF YOUR DISCHARGES OR ON RECEIVING WATER IN RELATION TO YOUR DISCHARGE WITHIN THE LAST THREE YEARS?

☐ YES (IDENTIFY THE TEST(S) AND DESCRIBE THEIR PURPOSES BELOW.)

☒ NO (GO TO 3.20)

3.20 CONTRACT ANALYSIS INFORMATION

WERE ANY OF THE ANALYSES REPORTED PERFORMED BY A CONTRACT LABORATORY OR CONSULTING FIRM?

☒ YES (LIST THE NAME, ADDRESS AND TELEPHONE NUMBER OF AND POLLUTANTS ANALYZED BY EACH SUCH LABORATORY OR FIRM BELOW.)

☐ NO (GO TO 3.30)

A. NAME	B. ADDRESS	C. TELEPHONE (area code and number)	D. POLLUTANTS ANALYZED (list)
Keystone Laboratories, Inc	600 East 17th Street South Newton, IA 50208	641-792-8451	All results except pH and chlorine.

3.30 CERTIFICATION

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED IN THIS APPLICATION AND ALL ATTACHMENTS AND THAT, BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THAT THE INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT.

NAME AND OFFICIAL TITLE (TYPE OR PRINT)

Karen Kelley Production Manager

TELEPHONE NUMBER WITH AREA CODE

816-325-7698

SIGNATURE (SEE INSTRUCTIONS)

Karen Kelley

DATE SIGNED

8/29/18

PLEASE PRINT OR TYPE. You may report some or all of this information on separate sheet
(Use the same format) instead of completing these pages.
SEE INSTRUCTIONS

FORM C
TABLE 1 FOR 3.00 ITEM A AND B

INTAKE AND EFFLUENT CHARACTERISTICS											OUTFALL NO. 1			
PART A – You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.														
1. POLLUTANT	2. EFFLUENT						D. NO. OF ANALYSES	3. UNITS (specify if blank)		4. INTAKE (optional)				
	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (if available)		C. LONG TERM AVRG. VALUE (if available)			A. CONCENTRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO. OF ANALYSES		
	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS			
A. Biochemical Oxygen Demand (BOD)								<13 mg/L						
B. Chemical Oxygen Demand (COD)								67 mg/L						
C. Total organic Carbon (TOC)								3.7 mg/L						
D. Total Suspended Solids (TSS)								48900 mg/L						
E. Ammonia (as N)								0.19 mg/L						
F. Flow	VALUE		VALUE		VALUE					VALUE				
G. Temperature (winter)	VALUE		VALUE		VALUE			°C		VALUE				
H. Temperature (summer)	VALUE		VALUE		VALUE			°C		VALUE				
I. pH	MINIMUM 10	MAXIMUM 11	MINIMUM	MAXIMUM				STANDARD UNITS						
PART B – Mark "X" in column 2A for each pollutant you know or have reason to believe is present. Mark "X" in column 2B for each pollutant you believe to be absent. If you mark column 2A for any pollutant, you must provide the results for at least one analysis for that pollutant. Complete one table for each outfall. See the instructions for additional details and requirements.														
1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. EFFLUENT						D. NO. OF ANALYSES	4. UNITS		5. INTAKE (optional)		
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (if available)		C. LONG TERM AVRG. VALUE (if available)			A. CONCENTRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
CONVENTIONAL AND NONCONVENTIONAL POLLUTANTS														
A. Bromide (24959-67-9)										<0.1 mg/L				
B. Chlorine, Total Residual										0-2.5 mg/L				
C. Color	X													
D. Fecal Coliform										<10 100 ml				
E. Fluoride (16984-48-8)										0.3 mg/L				
F. Nitrate - Nitrate (as N)										0.6 mg/L				

1. POLLUTANT AND CAS NUMBER <i>(if available)</i>	2. MARK "X"		3. EFFLUENT								4. UNITS		5. INTAKE <i>(optional)</i>		
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE <i>(if available)</i>		C. LONG TERM AVRG. VALUE <i>(if available)</i>		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO. OF ANALYSES	
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS		
G. Nitrogen, Total Organic <i>(as N)</i>										3.59 mg/L					
H. Oil and Grease		X													
I. Phosphorus <i>(as P)</i> , Total (7723-14-0)										17.3 mg/L					
J. Sulfate <i>(as SO₄⁻)</i> (14808-79-8)										127 mg/L					
K. Sulfide <i>(as S)</i>										<0.1 mg/L					
L. Sulfite <i>(as SO₃⁻)</i> (14265-45-3)										<5 mg/L					
M. Surfactants		X													
N. Aluminum, Total (7429-90-5)										2.01 mg/L					
O. Barium, Total (7440-39-3)										4.46 mg/L					
P. Boron, Total (7440-42-8)										0.475 mg/L					
Q. Cobalt, Total (7440-48-4)										0.003 mg/L					
R. Iron, Total (7439-89-6)										57.9 mg/L					
S. Magnesium, Total (7439-95-4)										227 mg/L					
T. Molybdenum, Total (7439-98-7)										<0.01 mg/L					
U. Manganese, Total (7439-96-5)										6.49 mg/L					
V. Tin, Total (7440-31-5)										<0.25 mg/L					
W. Titanium, Total (7440-32-6)										<0.0008 mg/L					

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. EFFLUENT								4. UNITS		5. INTAKE (optional)			
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (if available)		C. LONG TERM AVRG. VALUE (if available)		D. NO. OF ANALYSES	A. CONCEN- TRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO. OF ANALYSES		
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS			
METALS, AND TOTAL PHENOLS																
1M. Antimony, Total (7440-36-9)										<0.002 mg/L						
2M. Arsenic, Total (7440-38-2)										0.0228 mg/L						
3M. Beryllium, Total (7440-41-7)										<0.002 mg/L						
4M. Cadmium, Total (7440-43-9)										0.001 mg/L						
5M. Chromium III (16065-83-1)										0.0458 mg/L						
6M. Chromium VI (18540-29-9)										<0.01 mg/L						
7M. Copper, Total (7440-50-8)										0.0063 mg/L						
8M. Lead, Total (7439-92-1)										<0.008 mg/L						
9M. Mercury, Total (7439-97-6)										<0.0005 mg/L						
10M. Nickel, Total (7440-02-0)										0.026 mg/L						
11M. Selenium, Total (7782-49-2)										0.0079 mg/L						
12M. Silver, Total (7440-22-4)										<0.004 mg/L						
13M. Thallium, Total (7440-28-0)										<0.0008 mg/L						
14M. Zinc, Total (7440-66-6)										0.055 mg/L						
15M. Cyanide, Amenable to Chlorination										<0.005 mg/L						
16M. Phenols, Total		X														
RADIOACTIVITY																
(1) Alpha Total		X														
(2) Beta Total		X														
(3) Radium Total		X														
(4) Radium 226 Total		X														

PLEASE PRINT OR TYPE. You may report some or all of this information on separate sheet
(Use the same format) instead of completing these pages.
SEE INSTRUCTIONS

FORM C
TABLE 1 FOR 3.00 ITEM A AND B

INTAKE AND EFFLUENT CHARACTERISTICS											OUTFALL NO.			
											3			
PART A – You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.														
1. POLLUTANT	2. EFFLUENT						D. NO. OF ANALYSES	3. UNITS (specify if blank)		4. INTAKE (optional)				
	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (if available)		C. LONG TERM AVRG. VALUE (if available)			A. CONCENTRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO. OF ANALYSES		
	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS			
A. Biochemical Oxygen Demand (BOD)								<5 mg/L						
B. Chemical Oxygen Demand (COD)								<20 mg/L						
C. Total organic Carbon (TOC)								2.0 mg/L						
D. Total Suspended Solids (TSS)								2 mg/L						
E. Ammonia (as N)								0.44 mg/L						
F. Flow	VALUE		VALUE		VALUE					VALUE				
G. Temperature (winter)	VALUE		VALUE		VALUE			°C		VALUE				
H. Temperature (summer)	VALUE		VALUE		VALUE			°C		VALUE				
I. pH	MINIMUM 9.5	MAXIMUM 10.5	MINIMUM	MAXIMUM				STANDARD UNITS						
PART B – Mark "X" in column 2A for each pollutant you know or have reason to believe is present. Mark "X" in column 2B for each pollutant you believe to be absent. If you mark column 2A for any pollutant, you must provide the results for at least one analysis for that pollutant. Complete one table for each outfall. See the instructions for additional details and requirements.														
1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. EFFLUENT						4. UNITS		5. INTAKE (optional)			
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (if available)		C. LONG TERM AVRG. VALUE (if available)		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
CONVENTIONAL AND NONCONVENTIONAL POLLUTANTS														
A. Bromide (24959-67-9)										<0.1 mg/L				
B. Chlorine, Total Residual										1.68 mg/L				
C. Color	X													
D. Fecal Coliform										<10/100 ml				
E. Fluoride (16984-48-8)										0.2 mg/L				
F. Nitrate - Nitrate (as N)										0.62 mg/L				

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. EFFLUENT								4. UNITS		5. INTAKE (optional)		
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (if available)		C. LONG TERM AVRG. VALUE (if available)		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO. OF ANALYSES	
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS		
G. Nitrogen, Total Organic (as N)										<0.60 mg/L					
H. Oil and Grease		X													
I. Phosphorus (as P), Total (7723-14-0)										<0.4 mg/L					
J. Sulfate (as SO ⁴) (14808-79-8)										138 mg/L					
K. Sulfide (as S)										<0.1 mg/L					
L. Sulfite (as SO ³) (14265-45-3)										<5.0 mg/L					
M. Surfactants		X													
N. Aluminum, Total (7429-90-5)										<0.05 mg/L					
O. Barium, Total (7440-39-3)										0.048 mg/L					
P. Boron, Total (7440-42-8)										0.183 mg/L					
Q. Cobalt, Total (7440-48-4)										<0.002 mg/L					
R. Iron, Total (7439-89-6)										<0.100 mg/L					
S. Magnesium, Total (7439-95-4)										18.0 mg/L					
T. Molybdenum, Total (7439-98-7)										<0.01 mg/L					
U. Manganese, Total (7439-96-5)										<0.005 mg/L					
V. Tin, Total (7440-31-5)										<0.25 mg/L					
W. Titanium, Total (7440-32-6)										<0.05 mg/L					

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. EFFLUENT								4. UNITS		5. INTAKE (optional)			
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (if available)		C. LONG TERM AVRG. VALUE (if available)		D. NO. OF ANALYSES	A. CONCEN- TRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO. OF ANALYSES		
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS			
METALS, AND TOTAL PHENOLS																
1M. Antimony, Total (7440-36-9)										<0.002 mg/L						
2M. Arsenic, Total (7440-38-2)										<0.002 mg/L						
3M. Beryllium, Total (7440-41-7)										<0.002 mg/L						
4M. Cadmium, Total (7440-43-9)										<0.0008 mg/L						
5M. Chromium III (16065-83-1)										<0.012 mg/L						
6M. Chromium VI (18540-29-9)										<0.01 mg/L						
7M. Copper, Total (7440-50-8)										<0.002 mg/L						
8M. Lead, Total (7439-92-1)										<0.0008 mg/L						
9M. Mercury, Total (7439-97-6)										<0.0005 mg/L						
10M. Nickel, Total (7440-02-0)										<0.01 mg/L						
11M. Selenium, Total (7782-49-2)										<0.004 mg/L						
12M. Silver, Total (7440-22-4)										<0.004 mg/L						
13M. Thallium, Total (7440-28-0)										<0.008 mg/L						
14M. Zinc, Total (7440-66-6)										<0.02 mg/L						
15M. Cyanide, Amenable to Chlorination										<0.005 mg/L						
16M. Phenols, Total		X														
RADIOACTIVITY																
(1) Alpha Total		X														
(2) Beta Total		X														
(3) Radium Total		X														
(4) Radium 226 Total		X														



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

RECEIVED

SEP 05 2018

Water Protection Program

Complete this form to register a permit holder for electronic reporting. This form should also be used to identify or change authorized representatives assigned an electronic signature for the department's eDMR system.

PART A. PERMIT HOLDER INFORMATION

PERMIT NUMBER MO- 0003646	FACILITY NAME City of Independence Courtney Bend Water Treatment Plant		
ADDRESS 14700 Cement City Road	CITY Sugar Creek	STATE MO	ZIP CODE 64058
PERMIT HOLDER ACCOUNT ACTION ☒ New Application ☐ Revised Permit Holder or Account Information ☐ Request for Reactivation			

PART B. USER ACCOUNT INFORMATION

USER ACCOUNT ACTION ☒ Add ☐ Update ☐ Delete	ACCOUNT TYPE ☐ Viewer ☐ Preparer ☒ Certifier		
LAST NAME Kelley	FIRST NAME Karen	MIDDLE INITIAL L	
JOB TITLE Production Manager	EMPLOYER'S NAME City of Independence		
EMAIL KKelley@indepmo.org	TELEPHONE NUMBER WITH AREA CODE 816-325-7698		
ADDRESS 17221 E. 23rd St	CITY Independence	STATE MO	ZIP CODE 64057
USER ACCOUNT ACTION ☒ Add ☐ Update ☐ Delete	ACCOUNT TYPE ☐ Viewer ☐ Preparer ☒ Certifier		
LAST NAME McLaughlin	FIRST NAME Matthew	MIDDLE INITIAL L	
JOB TITLE Deputy Director	EMPLOYER'S NAME City of Independence		
EMAIL MMcLaughlin@indepmo.org	TELEPHONE NUMBER WITH AREA CODE 816-325-7695		
ADDRESS 17221 E. 23rd St.	CITY Independence	STATE MO	ZIP CODE 64057
USER ACCOUNT ACTION ☒ Add ☐ Update ☐ Delete	ACCOUNT TYPE ☐ Viewer ☒ Preparer ☐ Certifier		
LAST NAME Stafford	FIRST NAME Mark	MIDDLE INITIAL E	
JOB TITLE Laboratory Supervisor	EMPLOYER'S NAME City of Independence		
EMAIL MStafford@indepmo.org	TELEPHONE NUMBER WITH AREA CODE 816-325-7708		
ADDRESS 14700 Cement City Road	CITY Sugar Creek	STATE MO	ZIP CODE 64058

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) Daniel D. Montgomery	PERMIT HOLDER SIGNATURE <i>Daniel D. Montgomery</i>	DATE 8/29/2018
OFFICIAL TITLE (TYPE OR PRINT) Water Systems Director		

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.

By signing below, the permit holder and certifier agree with the terms and conditions of Part D.

Karen L. Kelley
Certifier (must sign in the presence of Notary)

8/29/18
Date

Scott D. Howell Jr
Notary Public 1*
SCOTT D. HOWELL JR

8/29/18
Date



Samuel D. Montgomery
Permit Holder (must sign in presence of Notary)

8/29/18
Date

Scott D. Howell Jr
Notary Public 2*
SCOTT D. HOWELL JR

8/29/18
Date



- * 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).

By signing below, the permit holder and certifier agree with the terms and conditions of Part D.

Matthew L. McLaughlin

Certifier (must sign in the presence of Notary)

8/29/18

Date



Scott D. Howell Jr

Notary Public 1*

SCOTT D. HOWELL JR

8/29/18

Date

Daniel D. Montgomery

Permit Holder (must sign in presence of Notary)

8/29/18

Date



Scott D. Howell Jr

Notary Public 2*

SCOTT D. HOWELL JR

8/29/18

Date

- * 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.
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