#### 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, 92<sup>nd</sup> Congress) as amended,

control Act (Public Law 92-500, 92 <sup>nd</sup> Congress) as amended,				
Permit No.:	MO-0120227			

Owner: City of Lincoln

Address: P.O. Box 17, Lincoln, MO 65338

Continuing Authority: Same as above Address: Same as above

Facility Name: Lincoln WWTP

Facility Address: NW 320 Bc & NW 371 Bc intersection, Lincoln, MO 65338

Legal Description: See Page 2 UTM Coordinates: See Page 2

Receiving Stream: See Page 2
First Classified Stream and ID: See Page 2
USGS Basin & Sub-watershed No.: See Page 2

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**

See Page 2

March 1, 2023
Effective Date

December 31, 2026

Expiration Date

Chris Wieberg, Director, Water Protection Program

#### **FACILITY DESCRIPTION (continued):**

#### **Permitted Feature #001** – POTW

The use or operation of this facility shall be by or under the supervision of a Certified "D" Operator.

Three-cell storage lagoon / intermediate pump station / wastewater is irrigated to the surface / sludge is retained in lagoon.

Design population equivalent is 1,750.

Design Flow is 200,000 gallons per day (Design Flow plus 10-year rainfall minus evaporation, does not account for inflow and infiltration)

Average design flow is 175,000 gallons per day (dry weather flows).

Design sludge production is 30 dry tons per year.

Legal Description: Sec. 22, T42N, R22W, Benton County

UTM Coordinates: X = 469967, Y = 4250764

Receiving Stream: Tributary to Tributary to Little Tebo Creek
First Classified Stream and ID: Tributary to Little Tebo Creek (C) (3304)

USGS Basin & Sub-watershed No.: (10290105-0506)

Storage Basin/Tank:

Maximum Operating Level: 2 feet of freeboard in Cell #3 (storage basin water level in feet below the overflow level)

Storage volume (min to max water levels, in gallons): Cell #1 Cell #2 Cell #3 Total
10,400,000 12,100,000 24,400,000 46,900,000

Storage Capacity (in Days):

Design for Dry weather flows: 268 days Design with 1-in 10 year flows: 198 days

Permitted Feature #002 – Center Pivot Irrigation Field

Irrigation areas: 42 acres at design loading

Legal Description: Sec. 22, T42N, R22W, Benton County

UTM Coordinates: X = 470032, Y = 4251255

Receiving Stream: Tributary to Tributary to Little Tebo Creek
First Classified Stream and ID: Tributary to Little Tebo Creek (C) (3304)

USGS Basin & Sub-watershed No.: (10290105-0506)

Permitted Feature #003 - Center Pivot Irrigation Field

Irrigation areas: 66.1 acres at design loading

Legal Description: Sec. 21, T42N, R22W, Benton County

UTM Coordinates: X = 469654, Y = 4251633

Receiving Stream: Tributary to Tributary to Little Tebo Creek
First Classified Stream and ID: Tributary to Little Tebo Creek (C) (3304)

USGS Basin & Sub-watershed No.: (10290105-0506)

Wastewater Irrigation Design Parameters:

Irrigation volume per year: 70,444,186 gallons (based on annual irrigation rate) Minimum irrigation volume per year at Design Flow: 63,875,000 gallons Irrigation rates: 0.25 inch/hour; 1.0 inch/day; 3.0 inches/week; 24 inches/year

Equipment type: center pivot

Vegetation: crop

Irrigation rate is based on: Hydraulic loading rate

PERMITTED FEATURE #001

### TABLE A-1 IRRIGATION SYSTEM LIMITATIONS AND MONITORING REQUIREMENTS

The permittee is authorized to conduct irrigation of wastewater as specified in the application for this permit. The final limitations shall become effective on <u>March 1, 2023</u> and remain in effect until expiration of the permit. The irrigation of wastewater shall be controlled, limited and monitored by the permittee as specified below:

STORAGE BASIN PARAMETER(S) UNITS	LINITEC	FINAL LIMITATIONS			MONITORING REQUIREMENTS	
	DAILY TOTAL	WEEKLY TOTAL	MONTHLY TOTAL	MEASUREMENT FREQUENCY	SAMPLE TYPE	
Limit Set: OM						
Storage Basin Freeboard**	feet	*			once/week	measured
Precipitation	inches	*		*	daily	total

MONITORING REPORTS SHALL BE SUBMITTED MONTHLY; THE FIRST REPORT IS DUE APRIL 28, 2023.

PERMITTED FEATURE #002 & #003\*\*\*

### TABLE A-2 IRRIGATION SYSTEM LIMITATIONS AND MONITORING REQUIREMENTS

The permittee is authorized to conduct irrigation of wastewater as specified in the application for this permit. The final limitations shall become effective on <u>March 1, 2023</u> and remain in effect until expiration of the permit. The irrigation of wastewater shall be controlled, limited and monitored by the permittee as specified below:

IRRIGATION OPERATIONAL MONITORING PARAMETER(S)	UNITS	FINAL LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY TOTAL	WEEKLY TOTAL	MONTHLY TOTAL	MEASUREMENT FREQUENCY	SAMPLE TYPE
Limit Set: LW						
Irrigation Period	hours	*		*	daily	total
Volume Irrigated	gallons	*		*	daily	total
Irrigation Area	acres	*		*	daily	total
Irrigation Rate	inches	*		*	daily	total

MONITORING REPORTS SHALL BE SUBMITTED MONTHLY; THE FIRST REPORT IS DUE APRIL 28, 2023.

- \* Monitoring requirement only.
- \*\* Storage Basin Freeboard shall be reported as storage basin water level in feet below the overflow level.
- \*\*\* Monitoring data from each Permitted Feature shall be reported separately.

#### **B. STANDARD CONDITIONS**

In addition to specified conditions stated herein, this permit is subject to the attached Parts I, II, & III standard conditions dated August 1, 2014, May 1, 2013, and August 1, 2019, and hereby incorporated as though fully set forth herein. Annual reports required per Standard Conditions Part III Section K shall be submitted online to the Department via the Department's eDMR system as an attachment. This supersedes Standard Conditions Part III Section K #4. EPA reports shall continue to be submitted online via the Central Data Exchange system.

#### C. SPECIAL CONDITIONS

#### Discharges.

(a) Monitoring. Any discharge shall be monitored for the parameters in the table below at least once during the discharge event. Additional monitoring may be required by the Department on a case-by-case basis. The facility shall submit test results, along with the number of days the storage basin(s) has discharged during the month, via the Electronic Discharge Monitoring Report (eDMR) Submission System by the 28<sup>th</sup> day of the month after the discharge ceases. Permittee shall monitor for the following constituents:

Page 4 of 7 Permit No. MO-0120227

Constituent	Units
Effluent Flow	MGD
Biochemical Oxygen Demand <sub>5</sub>	mg/L
Total Suspended Solids	mg/L
Ammonia as N	mg/L
pH – Units	SU
Oil & Grease	mg/L
E. coli*	#/100mL
Total Kjeldahl Nitrogen	mg/L
Nitrite + Nitrate	mg/L
Total Phosphorus	mg/L

<sup>\*</sup> Sampling for *E. coli* is only required during the recreational months of April – October.

(b) <u>Authorized Discharges</u>. A discharge from wastewater storage structures may only occur if rainfall exceeds the 10-year 365-day rainfall event (chronic) or the 25-year 24-hour rainfall event (catastrophic). The facility shall make all reasonable attempts to return the water level in the lagoon to below the maximum operating level. Design Storm Maps and Tables can be found at <a href="http://ag3.agebb.missouri.edu/design\_storm/">http://ag3.agebb.missouri.edu/design\_storm/</a>. For this facility:

Benton County	Data Collected: November 16, 2022
10-year 365-day rainfall event	53.3 inches
25-year 24-hour rainfall event	6.3 inches

(c) <u>Unauthorized Discharges</u>. Discharge for any other reason than what is stated in 1(b) of this Special Condition shall constitute a permit violation and shall be reported in accordance with Standard Conditions Part 1 Section B.2. Unauthorized discharges are to be reported to the Kansas City Regional Office during normal business hours or by using the online Sanitary Sewer Overflow/Facility Bypass Application located at: <a href="https://dnr.mo.gov/data-e-services/missouri-gateway-environmental-management-mogem">https://dnr.mo.gov/data-e-services/missouri-gateway-environmental-management-mogem</a> or the Environmental Emergency Response spill-line at 573-634-2436 outside of normal business hours.

#### 2. <u>Wastewater Irrigation System.</u>

- (a) <u>No-discharge facility requirements</u>. Wastewater shall be stored and irrigated during suitable conditions so that there is no discharge from the storage basins or irrigation sites.
- (b) Storage Basin Operating Levels No-discharge Systems. The minimum and maximum operating water levels for the storage basin(s) shall be clearly marked in each of the storage basins. Cell #3 of the storage basin shall be operated so that the maximum water elevation does not exceed two feet below the Emergency Spillway except due to exceedances of the 10-year 365-day rainfall event or 25-year 24-hour rainfall event as detailed in Special Condition 1. Wastewater shall be irrigated whenever feasible based on soil, weather conditions, and permit requirements. To ensure maximum storage capacity for the winter months when soil conditions may not be suitable for wastewater irrigation, the storage basin(s) shall be lowered to the two-foot minimum operating level during the months of September through November unless the Department approves a specific deviation from this requirement.
- (c) <u>Emergency Spillway.</u> Lagoons and earthen storage basins should have an emergency spillway to protect the structural integrity of earthen structures during operation at near full water levels and in the event of overflow conditions. The spillway shall be at least one foot below top of berm.
- (d) General Irrigation Requirements. The wastewater irrigation system shall be operated so as to provide uniform distribution of irrigated wastewater over the entire irrigation site. A complete ground cover of vegetation shall be maintained on the irrigation site unless the system is approved for row crop irrigation. The wastewater irrigation system shall be capable of irrigating the annual design flow during an irrigation period of 100 days or less per year.
- (e) Nighttime Irrigation. Nighttime irrigation may occur when properly operating telemetry equipment is capable of contacting a certified operator in the event of equipment malfunction, loss of water pressure or any other failure that may be associated with the discharge of wastewater from the irrigation equipment or application field. The permittee shall conduct and record monthly inspections of the telemetry and alarm equipment for proper operations. In addition, the facility is to record the daily start and stop positions of the pivots, weekly static freeboard water levels of the storage basin(s) before and after irrigation, annual stress test results, and date, time, and reason of each alarm activation and subsequent resolution. Records required by this condition are to be maintained and made available to department personnel upon request.

- (f) <u>Saturated/Frozen Conditions.</u> There shall be no surface irrigation during ground frost; frozen, snow-covered, or saturated soil conditions; or when precipitation is imminent or occurring.
- (g) <u>Slope Restrictions.</u> Wastewater irrigation on slopes exceeding 10%, the hourly irrigation rate shall not exceed one-half (1/2) the design sustained permeability and in no case shall exceed one-half (1/2) inch per hour.
- (h) Set Backs. There shall be no irrigation within:
  - (1) 150 feet of dwelling or public use areas;
  - (2) 50 feet of the property line or public road;
  - (3) 300 feet of any sinkhole, losing stream, or any other feature that may provide a connection to the ground water table and the surface;
  - (4) 300 feet from any existing potable water supply well not located on the property;
  - (5) 100 feet of any gaining streams (classified or unclassified; perennial or intermittent), wetlands, ponds, or lakes. As a compliance alternative a 35-foot vegetative buffer that is permanently covered with perennial vegetation may be substituted for the 100 foot set-back requirement; and
  - (6) If an established vegetated buffer or the wastewater is disinfected, the setbacks established in subsections (1)-(5) above may be decreased if the permittee demonstrates the risk is mitigated.
- (i) <u>Public Access Restrictions.</u> Public access shall not be allowed to public-use-area surface irrigation sites when irrigation is occurring.
- (j) Grazing and Harvesting of Forage Crops Restrictions. Grazing of animals shall be deferred as per the following:
  - (1) From May 1 to October 31, the minimum deferment from grazing or forage harvesting shall be 14 days.
  - (2) From November 1 to April 30, the minimum deferment from grazing or forage harvesting shall be 30 days.
- (k) Irrigated Wastewater Disinfection. Wastewater shall be disinfected prior to irrigation (not storage) to public-use-areas.
- (l) <u>Equipment Checks during Irrigation.</u> The irrigation system, including application sites, shall be visually inspected during periods of wastewater irrigation to check for equipment malfunctions and runoff from the irrigation site. Inspections shall occur <u>once per day for surface irrigation</u>.
- 3. Wastewater irrigation records shall be maintained and summarized into an annual operating report for the previous calendar year. This annual report is in addition to the reporting requirements listed in Table A and the report shall be kept onsite and made available to Department personnel upon request. The summarized annual report shall include the following:
  - (a) Record of maintenance and repairs performed during the year, average number of times per month the facility is checked to see if it is operating properly, and description of any unusual operating conditions encountered during the year;
  - (b) The number of days the storage basin(s) has discharged during the year, the discharge flow, and the reasons discharge occurred; and
  - (c) A summary of the irrigation operations for the year including: the number of days of irrigation, the total gallons irrigated, the total acres used, the irrigation rate in inches for the year, and the annual precipitation received at the facility.
- 4. <u>Electronic Discharge Monitoring Report (eDMR) Submission System.</u> Per 40 CFR Part 127 National Pollutant Discharge Elimination System (NPDES) Electronic Reporting Rule, reporting of effluent monitoring data and any report required by the permit (unless specifically directed otherwise by the permit) shall be submitted by the permittee via an electronic system to ensure timely, complete, accurate, and nationally consistent set of data about the NPDES program. All reports uploaded into the system shall be reasonably named so they are easily identifiable, such as "Permitted Feature 001 Daily Data Jan 2023," or "Permitted Feature 004 Daily Irrigation Data Mar 2025."
  - (a) eDMR Registration Requirements. The permittee must register with the Department's eDMR system through the Missouri Gateway for Environmental Management (MoGEM) before the first report is due. Registration and other information regarding MoGEM can be found at <a href="https://dnr.mo.gov/data-e-services/missouri-gateway-environmental-management-mogem">https://dnr.mo.gov/data-e-services/missouri-gateway-environmental-management-mogem</a>. Information about the eDMR system can be found at <a href="https://dnr.mo.gov/water/business-industry-other-entities/reporting/electronic-discharge-monitoring-reporting-system-edmr">https://dnr.mo.gov/water/business-industry-other-entities/reporting/electronic-discharge-monitoring-reporting-system-edmr</a>. The first user shall register as an Organization Official and the association to the facility must be approved by the Department. Regarding Standard Conditions Part I, Section B, #7, the eDMR system is currently the only Department approved reporting method for this permit unless a waiver is granted by the Department. See paragraph (c) below.
  - (b) Electronic Submissions. To access the eDMR system, use the following link in your web browser: <a href="https://apps5.mo.gov/mogems/welcome.action">https://apps5.mo.gov/mogems/welcome.action</a>. If you experience difficulties with using the eDMR system you may contact edmr@dnr.mo.gov or call 855-789-3889 or 573-526-2082 for assistance.
  - (c) Waivers from Electronic Reporting. The permittee must electronically submit compliance monitoring data and reports unless a waiver is granted by the Department in compliance with 40 CFR Part 127. The permittee may obtain an electronic reporting waiver by first submitting an eDMR Waiver Request Form: <a href="https://dnr.mo.gov/document-search/electronic-discharge-monitoring-report-waiver-request-form-mo-780-2692">https://dnr.mo.gov/document-search/electronic-discharge-monitoring-report-waiver-request-form-mo-780-2692</a>. The Department will either approve or deny this electronic reporting waiver request within 120 calendar days

- 5. The full implementation of this operating permit, which includes implementation of any applicable schedules of compliance, shall constitute compliance with all applicable federal and state statutes and regulations in accordance with §644.051.16, RSMo, and the Clean Water Act (CWA) section 402(k); however, this permit may be reopened and modified, or alternatively revoked and reissued:
  - (a) To comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a)(2) of the CWA, if the effluent standard or limitation so issued or approved:
    - (1) contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
    - (2) controls any pollutant not limited in the permit.
  - (b) To incorporate an approved pretreatment program or modification thereto pursuant to 40 CFR 403.8(c) pursuant to 40 CFR or 403.18(e), respectively.
- 6. Report as no-discharge when irrigation does not occur during the report period.
- 7. It is a violation of the Missouri Clean Water Law to fail to pay fees associated with this permit (644.055 RSMo).
- 8. The permittee shall comply with any applicable requirements listed in 10 CSR 20-9. The monitoring frequencies contained in Table A of this permit shall not be construed by the permittee as a modification of the monitoring frequencies listed in 10 CSR 20-9. To request modification of the operational control testing requirements, the permittee shall submit a permit modification application and fee to the Department requesting a deviation from the operational control monitoring requirements. If the request is approved, the Department will modify the permit.
- 9. The permittee shall develop and implement a program for maintenance and repair of its collection system. The permittee may compare collection system performance results and other data with the benchmarks used in the Departments' Capacity, Management, Operation, And Maintenance (CMOM) Model located at <a href="https://dnr.mo.gov/document-search/capacity-management-operations-maintenance-plan-editable-template">https://dnr.mo.gov/document-search/capacity-management-operations-maintenance-plan-editable-template</a>. Additional information regarding the Departments' CMOM Model is available at <a href="https://dnr.mo.gov/print/document-search/pub2574">https://dnr.mo.gov/print/document-search/pub2574</a>.

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

- (a) A summary of the efforts to locate and eliminate sources of excessive infiltration and inflow into the collection system serving the facility for the previous year.
- (b) A summary of the general maintenance and repairs to the collection system serving the facility for the previous year.
- (c) A summary of any planned maintenance and repairs to the collection system serving the facility for the upcoming calendar year. This list shall include locations (GPS, 911 address, manhole number, etc.) and actions to be taken.
- 10. All outfalls must be clearly marked in the field.
- 11. The permittee shall develop, maintain and implement an Operation and Maintenance (O&M) Manual that includes all necessary items to ensure the operation and integrity of the waste handling and wastewater irrigation systems, including key operating procedures, an aerial or topographic site map with the permitted features, irrigation fields, and irrigation buffer zones marked, and a brief summary of the operation of the facility. The O&M manual shall be made available to the operator and shall be reviewed and updated at least every five years or when there is a change in equipment or irrigation sites.
- 12. Reporting of Non-Detects:
  - (a) An analysis conducted by the permittee or their contracted laboratory shall be conducted in such a way that the precision and accuracy of the analyzed result can be enumerated.
  - (b) See sufficiently sensitive test method requirements in Standard Conditions Part I, Section A, No. 4 regarding proper testing and method minimum levels used for sample analysis.
  - (c) The permittee shall not report a sample result as "Non-Detect" without also reporting the method minimum level of the test. Reporting as "Non Detect" without also including the method minimum level, will be considered failure to report, which is a violation of this permit.
  - (d) The permittee shall provide the "Non-Detect" sample result using the less than symbol and the method minimum level (e.g.,  $<50 \mu g/L$ ), if the method minimum level for the parameter is  $50 \mu g/L$ ).
  - (e) Where the permit contains a Department determined Minimum Quantification Level (ML) and the permittee is granted authority in the permit to report zero in lieu of the < ML for a specified parameter (conventional, priority pollutants, metals, etc.), then zero (0) is to be reported for that parameter.
  - (f) 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 laboratory's highest method minimum level.
  - (g) For reporting an average based on all non-detected values, remove the "<" sign from the values, average the values, and then add the "<" symbol back to the resulting average.

- (h) For reporting an average based on a mix of detected and non-detected values (not including *E. coli*), assign a value of "0" for all non-detects for that reporting period and report the average of all the results.
- (i) When *E. coli* is not detected above the method minimum level, the permittee must report the data qualifier signifying less than detection limit for that parameter (e.g., <1 #/100mL, if the method minimum level is 1 #/100mL). For reporting a geometric mean based on a mix of detected and non-detected values, use one-half of the detection limit (instead of zero) for non-detects when calculating geometric means.
- (j) See the Fact Sheet Appendix Non-Detect Example Calculations for further guidance.
- 13. Access to the storage basin(s) and any associated wastewater irrigation equipment must be sufficiently restricted or secured to prevent entry by children, livestock and unauthorized persons as well as to protect the facility from vandalism.
- 14. An all-weather access road shall be provided to the treatment facility.
- 15. The berms of the storage basin(s) shall be mowed and kept free of any deep-rooted vegetation, animal dens, or other potential sources of damage to the berms.
- 16. The facility shall ensure that adequate provisions are provided to prevent surface water intrusion into the storage basin(s) and to divert stormwater runoff around the storage basin(s) and protect embankments from erosion.
- 17. <u>Wastewater Irrigation Sites</u>. To add additional irrigation sites or to convert any of the land to public-use-areas, a construction permit, geohydrologic evaluation, soils report, and permit modification may be required. The facility shall contact the Department for a written determination.

#### D. 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 Sections 621.250 and 644.051.6 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 should 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: <a href="https://ahc.mo.gov">https://ahc.mo.gov</a>

# MISSOURI DEPARTMENT OF NATURAL RESOURCES FACT SHEET FOR THE PURPOSE OF RENEWAL OF MO-0120227 LINCOLN WWTP

The Federal Water Pollution Control Act ("Clean Water Act" Section 402 Public Law 92-500 as amended) established the National Pollutant Discharge Elimination System (NPDES) permit program. This program regulates the discharge of pollutants from point sources into the waters of the United States, and the release of stormwater from certain point sources. All such discharges are unlawful without a permit (Section 301 of the "Clean Water Act"). After a permit is obtained, a discharge not in compliance with all permit terms and conditions is unlawful. Missouri State Operating Permits (MSOPs) are issued by the Director of the Missouri Department of Natural Resources (Department) under an approved program, operating in accordance with federal and state laws (Federal "Clean Water Act" and "Missouri Clean Water Law" Section 644 as amended). MSOPs are issued for a period of five (5) years unless otherwise specified.

As per [40 CFR Part 124.8(a)] and [10 CSR 20-6.020(1)(A)2.] a Factsheet shall be prepared to give pertinent information regarding the applicable regulations, rationale for the development of effluent limitations and conditions, and the public participation process for the Missouri State Operating Permit (operating permit) listed below.

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

This Factsheet is for a Minor.

#### Part I – Facility Information

Facility Type and Description: POTW

Three-cell storage lagoon / intermediate pump station / wastewater is irrigated to the surface / sludge is retained in lagoon.

Application Date: 04/23/21 Expiration Date: 12/31/21

#### PERMITTED FEATURE(S) TABLE:

PERMITTED FEATURE	DESIGN FLOW (CFS)	TREATMENT LEVEL	EFFLUENT TYPE
#001	0.27125	Storage Basin(s)	Domestic
#002	Irrigation Field		
#003	Irrigation Field		

#### Comments:

There are no changes regarding monitoring and reporting from the previous permit. Special conditions were updated to include the revision of the Wastewater Irrigation System to allow nighttime irrigation, the revision of reporting Non-Detects, the removal of the requirement to cease discharge and connect to a facility with an area-wide management plan due to no such higher authority being available, the removal of the special condition regarding changes and additions of pollutants into the facility, however, increased pollutant loading shall be reported to the Department, the removal of special conditions requiring gates and warning signs, but the facility must remain sufficiently secured to restrict access per special condition 13, and the removal of special condition regarding sludge treatment storage and disposal, but this permit is still subject to Standard Conditions Part III.

This permit includes a condition for irrigation of wastewater during nighttime hours. The permittee has requested the ability to irrigate during nighttime hours so the storage basins can be lowered to prevent discharges and do so in a manner that will not exceed the amount of wastewater applied to the land application sites represented by Permitted Feature(s) #002 and #003. A certified operator will be available to monitor all nighttime irrigation equipment for malfunction.

#### Part II – Receiving Stream Information

While this facility is no discharge, a receiving stream is listed for the purposes of showing what stream would be affected in the event of a discharge due to an acute or chronic rain event.

RECEIVING STREAM(S) TABLE: PERMITTED FEATURES #001, #002, & #003

WATER-BODY NAME	CLASS	WBID	DESIGNATED USES*	12-Digit HUC
Tributary to Tributary to Little Tebo Creek			General Criteria	10290105-0506
Tributary to Little Tebo Creek	С	3304	AHP, LWP, IRR, HHP, SCR, WBC-B	10290103-0300

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

Uses found in the receiving streams table, above:

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

AHP = Aquatic Habitat Protection - To ensure the protection and propagation of fish, shellfish, and wildlife. AHP is further subcategorized as:

**WWH** = Warm Water Habitat;

**CLH** = Cool Water Habitat;

**CDH**= Cold Water Habitat;

**EAH** = Ephemeral Aquatic Habitat;

**MAH** = Modified Aquatic Habitat;

**LAH** = Limited Aquatic Habitat.

This permit uses Aquatic Life Protection effluent limitations in 10 CSR 20-7.031 Table A for all aquatic habitat designations unless otherwise specified.

10 CSR 20-7.031(1)(C)2.: Recreation in and on the water

**WBC** = Whole Body Contact recreation where the entire body is capable of being submerged. WBC is further subcategorized as:

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

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

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

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

**HHP** = Human Health Protection as it relates to the consumption of fish;

**IRR** = Irrigation - Application of water to cropland or directly to cultivated plants that may be used for human or livestock consumption;

**LWP** = Livestock and wildlife protection - Maintenance of conditions in waters to support health in livestock and wildlife;

**DWS** = Drinking water supply;

**IND** = Industrial water supply

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

**WSA** = Storm- and flood-water storage and attenuation;

**WHP** = Habitat for resident and migratory wildlife species;

**WRC** = Recreational, cultural, educational, scientific, and natural aesthetic values and uses;

**WHC** = Hydrologic cycle maintenance.

10 CSR 20-7.031(6):

**GRW** = Groundwater

#### Receiving Water Body's Water Quality

This facility is designed for wastewater irrigation; therefore, it does not discharge to a 303(d) listed stream or to a stream with an EPA approved TMDL.

#### **Permit Limits Determination**

#### PERMITTED FEATURE #001 - STORAGE BASIN

• <u>Freeboard.</u> Monitoring requirement to verify adequate freeboard is maintained, so as to avoid an overflow of the storage basin. Freeboard shall be measured in Cell #3 and be no less than 2 feet. Construction Permit CP0002030 for this facility derived storage volumes for each cell based on the following freeboard amounts:

Cell #1: 0.5 feet Cell #2: 1 foot Cell #3: 2 feet

 <u>Precipitation.</u> Monitoring requirement to ensure appropriate irrigation is conducted to account for accumulated water in the storage basin.

#### PERMITTED FEATURES #002 & #003 – IRRIGATION FIELDS

- <u>Irrigation Period.</u> Monitoring requirement only. Monitoring for the Irrigation Period is included to determine if proper irrigation is occurring on the irrigation fields.
- <u>Volume Irrigated</u>. Monitoring requirement only. Monitoring for the Volume Irrigated is included to determine if proper irrigation is occurring on the irrigation fields.
- <u>Irrigation Area.</u> Monitoring requirement only. Monitoring for the Irrigation Area is included to determine if proper irrigation is occurring on the irrigation fields.
- <u>Irrigation Rate</u>. Monitoring requirement only. Monitoring for the Irrigation Rate is included to determine if proper irrigation is occurring on the irrigation fields.

#### **Sampling Frequency Justification:**

Sampling frequency has been determined to be appropriate so it has been retained from the previous state operating permit.

#### **Sampling Type Justification:**

Due to the discharge being from irrigation from a storage basin, a grab sample is a representative and appropriate sample type. Variation in nutrient concentration is not expected over a 24 hour period. Sampling type has been determined to be appropriate so it has been retained from the previous state operating permit.

**DISCHARGE PARAMETERS** – BOD<sub>5</sub>, TSS, Ammonia, pH, Oil & Grease, *E. coli*, Total Phosphorus, and Total Kjeldahl Nitrogen, and Nitrite + Nitrate are conventional pollutants found in domestic wastewater. These parameters shall be monitored at least once during the discharge event. Additional monitoring may be required by the Department on a case-by-case basis. All samples shall be collected as grab samples. pH samples cannot be preserved and must be sampled in the field.

#### **OUTFALL #001 – GENERAL CRITERIA CONSIDERATIONS:**

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

(A) Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses. This facility utilizes irrigation of domestic wastewater to the land surface and therefore does not discharge. Based upon a review of a recent Report of Compliance Inspection for the inspection conducted on October 31, 2016, the facility was found to be in noncompliance with Missouri Clean Water Law and MSOP while under the old discharging system prior to conversion to land application. The facility has not disclosed any other information their permit application which has the potential to cause or contribute to an excursion of this narrative criterion.

Additionally, there had been no indication to the Department that the stream has had issues maintaining beneficial uses as a result of the wastewater irrigation since upgrades were completed. Therefore, based on the information reviewed during the drafting of this permit, and the fact that the facility does not discharge, no reasonable potential to cause or contribute to an excursion of this criterion exists.

- (B) Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses. Please see (A) above as justification is the same.
- (C) Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses. Please see (A) above as justification is the same.
- (D) Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life. Please see (A) above as justification is the same.
- (E) Waters shall provide for the attainment and maintenance of water quality standards downstream including waters of another state. Please see (D) above as justification is the same.
- (F) There shall be no significant human health hazard from incidental contact with the water. Please see (A) above as justification is the same.
- (G) There shall be no acute toxicity to livestock or wildlife watering. Please see (A) above as justification is the same.
- (H) Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community. Please see (A) above as justification is the same.
- (I) Waters shall be free from used tires, car bodies, appliances, demolition debris, used vehicles or equipment and solid waste as defined in Missouri's Solid Waste Law, section 260.200, RSMo, except as the use of such materials is specifically permitted pursuant to section 260.200-260.247. The discharge from this facility is made up of treated domestic wastewater. No evidence of an excursion of this criterion has been observed by the Department in the past and the facility has not disclosed any other information related to the characteristics of the discharge on their permit application which has the potential to cause or contribute to an excursion of this narrative criterion. Additionally, any solid wastes received or produced at this facility are wholly contained in appropriate storage facilities, are not discharged, and are disposed of offsite. This discharge is subject to Standard Conditions Part III, which contains requirements for the management and disposal of sludge to prevent its discharge. Therefore, this discharge does not have reasonable potential to cause or contribute to an excursion of this criterion.

#### Part III - Rationale and Derivation of Effluent Limitations & Permit Conditions

#### **ALTERNATIVE EVALUATIONS FOR NEW FACILITIES:**

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

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

#### **ANTI-BACKSLIDING:**

A provision in the Federal Regulations [CWA §303(d)(4); CWA §402(o); 40 CFR Part 122.44(1)] that requires a reissued permit to be as stringent as the previous permit with some exceptions.

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

#### **ANTIDEGRADATION:**

In accordance with Missouri's Water Quality Standard [10 CSR 20-7.031(3)], the Department is to document by means of Antidegradation Review that the use of a water body's available assimilative capacity is justified. Degradation is justified by documenting the socio-economic importance of a discharging activity after determining the necessity of the discharge.

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

#### AREA-WIDE WASTE TREATMENT MANAGEMENT & CONTINUING AUTHORITY:

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

#### **BIOSOLIDS & SEWAGE SLUDGE:**

Biosolids are solid materials resulting from domestic wastewater treatment that meet federal and state criteria for beneficial uses (i.e. fertilizer). Sewage sludge is solids, semi-solids, or liquid residue generated during the treatment of domestic sewage in a treatment works; including but not limited to, domestic septage; scum or solids removed in primary, secondary, or advanced wastewater treatment process; and a material derived from sewage sludge. Sewage sludge does not include ash generated during the firing of sewage sludge in a sewage sludge incinerator or grit and screening generated during preliminary treatment of domestic sewage in a treatment works.

✓ Permittee is not authorized to land apply biosolids. Sludge/biosolids are stored in the lagoon. The permittee must receive approval for any treatment, removal, and disposal of sludge or biosolids that is not identified in the facility description of the operating permit.

#### **COMPLIANCE AND ENFORCEMENT:**

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

#### Facility Performance History:

✓ The facility is not currently under Water Protection Program enforcement action. This facility was last inspected on October 31, 2016. The inspection showed the following unsatisfactory features: cause of pollution to waters of the state and discharge of water contaminants which reduces the quality of waters of the state below the Water Quality Standards. The notice of violation from that inspection report referred the facility to enforcement. As a result of the enforcement case, the facility converted to a no-discharge land application system. With the completion of the upgrade in 2020, the enforcement case was closed.

#### **CONTINUING AUTHORITY:**

Each application for an operating permit shall identify the person, as that term is defined in section 644.016(15), RSMo, that is the owner of, operator of, or area-wide management authority for a water contaminant source, point source, wastewater treatment facility, or sewer collection system. This person shall be designated as the continuing authority and shall sign the application. By doing so, the person designated as the continuing authority acknowledges responsibility for compliance with all permit conditions.

10 CSR 20-6.010(2) establishes preferential levels for continuing authorities: Levels 1 through 5 (with Level 1 as the highest level), and requires a higher preference continuing authority be utilized if available. A Level 3, 4, or 5 applicant may constitute a continuing authority by showing that the authorities listed under paragraphs (B)1.–2. of 10 CSR 20-6.010(2) are not available; do not have jurisdiction; are forbidden by state statute or local ordinance from providing service to the person; or that it has met one of the requirements listed in paragraphs (2)(C)1.–7. of 10 CSR 20-6.010(2). The seven options in paragraphs (2)(C)1.–7. for a lower-level authority to demonstrate that it is the valid continuing authority are:

- 1. A waiver from the existing higher authority declining the offer to accept management of the additional wastewater or stormwater;
- 2. A written statement or a demonstration of non-response from the higher authority;
- 3. A to-scale map showing all parts of the legal boundary of the facility's property are beyond 2000 feet from the collection (sewer) system operated by the higher preference authority;
- 4. A proposed connection or adoption charge by the higher authority that would equal or exceed what is economically feasible for the applicant, which may be in the range of one hundred twenty percent (120%) of the applicant's cost for constructing or operating a wastewater treatment system;
- 5. A proposed service fee on the users of the system by the higher authority that is above what is affordable for existing homeowners in that area;
- 6. Terms for connection or adoption by the higher authority that would require more than two (2) years to achieve full sewer service; or
- 7. A demonstration that the terms for connection or adoption by the higher authority are not viable or feasible to homeowners in the area.

Permit applicants that are Levels 3, 4, and 5 must, as part of their application, identify their method of compliance with this regulation. The following are the methods to comply.

- o No higher level authorities are available to the facility;
- o No higher level authorities have jurisdiction;
- o Higher level authorities are forbidden by state statute or local ordinance from providing service to the person;

- The existing higher level authority is available to the facility, however the facility has proposed the use of a lower preference continuing authority and has submitted one of the following as part of their application (See Fact Sheet Appendix Continuing Authority for more information on these options):
  - o A waiver from the existing higher authority;
  - o A written statement or a demonstration of non-response from the higher authority;
  - O A to-scale map showing all parts of the legal boundary of the facility's property are beyond 2000 feet from the collection (sewer) system operated by the higher preference authority;
  - O Documentation that the proposed connection or adoption charge by the higher authority would equal or exceed what is economically feasible for the applicant, which may be in the range of one hundred twenty percent (120%) of the applicant's cost for constructing or operating a wastewater treatment system;
  - O Documentation that the proposed service fee on the users of the system by the higher authority is above what is affordable for existing homeowners in that area;
  - o Documentation that the terms for connection or adoption by the higher authority would require more than two (2) years to achieve full sewer service;
  - o A demonstration that the terms for connection or adoption by the higher authority are not viable or feasible to homeowners in the area;
- ✓ The continuing authority listed on the application is a municipality. The continuing authority is a Level 3 Authority. The applicant has shown that:
  - o A higher level authority is not available to the facility.

#### ELECTRONIC DISCHARGE MONITORING REPORT (EDMR) SUBMISSION SYSTEM:

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

Per 40 CFR 127.15 and 127.24, permitted facilities may request a temporary waiver for up to 5 years or a permanent waiver from electronic reporting from the Department. To obtain an electronic reporting waiver, a permittee must first submit an eDMR Waiver Request Form: <a href="https://dnr.mo.gov/document-search/electronic-discharge-monitoring-report-waiver-request-form-mo-780-2692">https://dnr.mo.gov/document-search/electronic-discharge-monitoring-report-waiver-request-form-mo-780-2692</a>. A request must be made for each facility. If more than one facility is owned or operated by a single entity, then the entity must submit a separate request for each facility based on its specific circumstances. An approved waiver is non-transferable.

The Department must review and notify the facility within 120 calendar days of receipt if the waiver request has been approved or rejected [40 CFR 124.27(a)]. During the Department review period as well as after a waiver is granted, the facility must continue submitting a hard-copy of any reports required by their permit. The Department will enter data submitted in hard-copy from those facilities allowed to do so and electronically submit the data to the EPA on behalf of the facility.

✓ The permittee/facility is currently using the eDMR data reporting system.

#### NUMERIC LAKE NUTRIENT CRITERIA

This facility is located in a lake watershed (Harry S Truman Reservoir) where numeric lake nutrient criteria are applicable, per 10 CSR 20-7.031(5)(N), and has a design flow greater than 0.1 MGD; however, this is a no-discharge facility which irrigates the wastewater. As a result, the facility is not required to monitor for nutrients unless the facility emergency discharges in accordance with Special Condition #1(a).

#### **OPERATOR CERTIFICATION REQUIREMENTS:**

As per [10 CSR 20-6.010(8) Terms and Conditions of a Permit], the permittee shall operate and maintain facilities to comply with the Missouri Clean Water Law and applicable permit conditions and regulations. Operators at regulated wastewater treatment facilities shall be certified in accordance with [10 CSR 20-9.020(2)] and any other applicable state law or regulation. As per [10 CSR 20-9.020(2)(A)], requirements for operation by certified personnel shall apply to all wastewater treatment systems with population equivalents greater than 200 and are owned or operated by or for municipalities, public sewer districts, counties, public water supply districts, private sewer companies regulated by the Public Service Commission and state or federal agencies.

✓ This facility is required to have a certified operator as it has a population equivalent greater than 200 and is owned or operated by or for a municipality, public sewer district, county, public water supply district, private sewer company regulated by the PSC, state or federal agency.

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

Operator's Name: Josh Cole Certification Number: 16167 Certification Level: WW-D

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

#### OPERATIONAL CONTROL TESTING REQUIREMENTS

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

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

- ✓ As per [10 CSR 20-9.010(4)], the facility is required to conduct operational monitoring. These operational monitoring reports shall be submitted to the Department along with the MSOP discharge monitoring reports.
  - ✓ The facility is a lagoon that is designed as a no-discharge lagoon and is required to conduct operational control monitoring as follows:

Operational Monitoring Parameter	Frequency
Precipitation	Twice/Month
Flow – Influent or Effluent	Twice/Month
pH – Primary Cell	Twice/Month
Dissolved Oxygen – Primary Cell	Twice/Month

#### PRETREATMENT PROGRAM:

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

Pretreatment programs are required at any POTW (or combination of POTW operated by the same authority) and/or municipality with a total design flow greater than 5.0 MGD and receiving industrial wastes that interfere with or pass through the treatment works or are otherwise subject to the pretreatment standards. Pretreatment programs can also be required at POTWs/municipals with a design flow less than 5.0 MGD if needed to prevent interference with operations or pass through.

Several special conditions pertaining to the permittee's pretreatment program may be included in the permit, and are as follows:

- Implementation and enforcement of the program,
- Annual pretreatment report submittal,
- Submittal of list of industrial users,
- Technical evaluation of need to establish local limitations, and
- Submittal of the results of the evaluation
- ✓ The permittee, at this time, is not required to have a Pretreatment Program or does not have an approved pretreatment program.

#### **REMOVAL EFFICIENCY:**

Removal efficiency is a method by which the Federal Regulations define Secondary Treatment and Equivalent to Secondary Treatment, which applies to Biochemical Oxygen Demand 5-day (BOD<sub>5</sub>) and Total Suspended Solids (TSS) for publically owned treatment works (POTWs). See 40 CFR Part 133.102(a)(3) & (b)(3) and 40 CFR 133.105(a)(3)&(b)(3). This is a no-discharge facility, therefore removal efficiency is 100% and influent monitoring is not required.

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

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

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

Missouri RSMo §644.026.1.(13) mandates that the Department issue permits for discharges of water contaminants into the waters of this state, and also for the operation of sewer systems. Such permit conditions shall ensure compliance with all requirements as established by sections 644.006 to 644.141. Standard Conditions Part I, referenced in the permit, contains provisions requiring proper operation and maintenance of all facilities and systems of treatment and control. Missouri RSMo §644.026.1.(15) instructs the Department to require proper maintenance and operation of treatment facilities and sewer systems and proper disposal of residual waste from all such facilities. To ensure that public health and the environment are protected, any noncompliance which may endanger public health or the environment must be reported to the Department within 24 hours of the time the permittee becomes aware of the noncompliance. Standard Conditions Part I, referenced in the permit, contains the reporting requirements for the permittee when bypasses and upsets occur.

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

#### **SCHEDULE OF COMPLIANCE (SOC):**

Per 644.051.4 RSMo, a permit may be issued with a Schedule of Compliance (SOC) to provide time for a facility to come into compliance with new state or federal effluent regulations, water quality standards, or other requirements. Such a schedule is not allowed if the facility is already in compliance with the new requirement, or if prohibited by other statute or regulation. A SOC includes an enforceable sequence of interim requirements (actions, operations, or milestone events) leading to compliance with the Missouri Clean Water Law, its implementing regulations, and/or the terms and conditions of an operating permit. *See also* Section 502(17) of the Clean Water Act, and 40 CFR §122.2. For new effluent limitations, the permit includes interim monitoring for the specific parameter to demonstrate the facility is not already in compliance with the new requirement. Per 40 CFR § 122.47(a)(1), 10 CSR 20-7.015(9), and 10 CSR 20-7.031(11), compliance must occur as soon as possible. If the permit provides a schedule for meeting new water quality based effluent limits, a SOC must include an enforceable, final effluent limitation in the permit even if the SOC extends beyond the life of the permit.

#### A SOC is not allowed:

- For effluent limitations based on technology-based standards established in accordance with federal requirements, if the deadline for compliance established in federal regulations has passed. 40 CFR § 125.3.
- For a newly constructed facility in most cases. Newly constructed facilities must meet applicable effluent limitations when discharge begins, because the facility has installed the appropriate control technology as specified in a permit or antidegradation review. A SOC is allowed for a new water quality based effluent limit that was not included in a previously public noticed permit or antidegradation review, which may occur if a regulation changes during construction.

• To develop a TMDL, UAA, or other study that may result in site-specific criteria or alternative effluent limitations. A facility is not prohibited from conducting these activities, but a SOC may not be granted for conducting these activities.

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

✓ This permit does not contain a SOC.

#### SEWER EXTENSION AUTHORITY SUPERVISED PROGRAM:

In accordance with [10 CSR 20-6.010(6)(A)], the Department may grant approval of a permittee's Sewer Extension Authority Supervised Program. These approved permittees regulate and approve construction of sanitary sewers and pump stations, which are tributary to this wastewater treatment facility. The permittee shall act as the continuing authority for the operation, maintenance, and modernization of the constructed collection system. See <a href="https://dnr.mo.gov/water/business-industry-other-entities/permits-certification-engineering-fees/wastewater/construction-engineering.">https://dnr.mo.gov/water/business-industry-other-entities/permits-certification-engineering-fees/wastewater/construction-engineering.</a>

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

#### **STORMWATER POLLUTION PREVENTION PLAN (SWPPP):**

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

In accordance with the EPA's <u>Developing Your Stormwater Pollution Prevention Plan, A Guide for Industrial Operators</u>, (Document number EPA 833-B-09-002) [published by the United States Environmental Protection Agency (USEPA) in February 2009], BMPs are measures or practices used to reduce the amount of pollution entering (regarding this operating permit) waters of the state. BMPs may take the form of a process, activity, or physical structure.

Additionally in accordance with the Stormwater Management, a SWPPP is a series of steps and activities to (1) identify sources of pollution or contamination, and (2) select and carry out actions which prevent or control the pollution of stormwater discharges. The purpose of a SWPPP is to comply with all applicable stormwater regulations by creating an adaptive management plan to control and mitigate stream pollution from stormwater runoff. Developing a SWPPP provides opportunities to employ appropriate BMPs to minimize the risk of pollutants being discharged during storm events. The following paragraph outlines the general steps the permittee should take to determine which BMPs will work to achieve the benchmark values or limits in the permit. This section is not intended to be all encompassing or restrict the use of any physical BMP or operational and maintenance procedure assisting in pollution control. Additional steps or revisions to the SWPPP may be required to meet the requirements of the permit.

Areas which should be included in the SWPPP are identified in 40 CFR 122.26(b)(14). Once the potential sources of stormwater pollution have been identified, a plan should be formulated to best control the amount of pollutant being released and discharged by each activity or source. This should include, but is not limited to, minimizing exposure to stormwater, good housekeeping measures, proper facility and equipment maintenance, spill prevention and response, vehicle traffic control, and proper materials handling. Once a plan has been developed the facility will employ the control measures determined to be adequate to achieve the benchmark values discussed above. The facility will conduct monitoring and inspections of the BMPs to ensure they are working properly and reevaluate any BMP not achieving compliance with permitting requirements. For example, if sample results from an outfall show values of TSS above the benchmark value, the BMP being employed is deficient in controlling stormwater pollution. Corrective action should be taken to repair, improve, or replace the failing BMP. This internal evaluation is required at least once per month but should be continued more frequently if BMPs continue to fail. If failures do occur, continue this trial and error process until appropriate BMPs have been established.

For new, altered, or expanded stormwater discharges, the SWPPP shall identify reasonable and effective BMPs while accounting for environmental impacts of varying control methods. The antidegradation analysis must document why no discharge or no exposure options are not feasible. The selection and documentation of appropriate control measures shall serve as an alternative analysis of technology and fulfill the requirements of antidegradation [10 CSR 20-7.031(3)]. For further guidance, consult the antidegradation implementation procedure (<a href="https://dnr.mo.gov/document-search/antidegradation-implementation-procedure">https://dnr.mo.gov/document-search/antidegradation-implementation-procedure</a>).

Alternative Analysis (AA) evaluation of the BMPs is a structured evaluation of BMPs that are reasonable and cost effective. The AA evaluation should include practices that are designed to be: 1) non-degrading; 2) less degrading; or 3) degrading water quality. The glossary of AIP defines these three terms.

The chosen BMP will be the most reasonable and effective management strategy while ensuring the highest statutory and regulatory requirements are achieved and the highest quality water attainable for the facility is discharged. The AA evaluation must demonstrate why "no discharge" or "no exposure" is not a feasible alternative at the facility. This structured analysis of BMPs serves as the antidegradation review, fulfilling the requirements of 10 CSR 20-7.031(3) Water Quality Standards and *Antidegradation Implementation Procedure* (AIP), Section II.B.

If parameter-specific numeric exceedances continue to occur and the permittee feels there are no practicable or cost-effective BMPs which will sufficiently reduce a pollutant concentration in the discharge to the benchmark values established in the permit, the permittee can submit a request to re-evaluate the benchmark values. This request needs to include 1) a detailed explanation of why the facility is unable to comply with the permit conditions and unable to establish BMPs to achieve the benchmark values; 2) financial data of the company and documentation of cost associated with BMPs for review and 3) the SWPPP, which should contain adequate documentation of BMPs employed, failed BMPs, corrective actions, and all other required information. This will allow the Department to conduct a cost analysis on control measures and actions taken by the facility to determine cost-effectiveness of BMPs. The request shall be submitted in the form of an operating permit modification; the application is found at: <a href="https://dnr.mo.gov/forms-applications">https://dnr.mo.gov/forms-applications</a>.

✓ At this time, the permittee is not required to develop and implement a SWPPP. As the permittee is a no-discharge facility, the use of best management practices to reduce stormwater flows into the treatment basin or into the application fields should be considered and employed.

#### **VARIANCE:**

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

✓ This operating permit is not drafted under premises of a petition for variance.

#### 40 CFR 122.41(M) - BYPASSES:

The federal Clean Water Act (CWA), Section 402 prohibits wastewater dischargers from "bypassing" untreated or partially treated sewage (wastewater) beyond the headworks. A bypass is defined as an intentional diversion of waste streams from any portion of a treatment facility, [40 CFR 122.41(m)(1)(i)]. Additionally, Missouri regulation 10 CSR 20-7.015(9)(G) states a bypass means the intentional diversion of waste streams from any portion of a treatment facility, except in the case of blending, to waters of the state. Only under exceptional and specified limitations do the federal regulations allow for a facility to bypass some or all of the flow from its treatment process. Bypasses are prohibited by the CWA unless a permittee can meet all of the criteria listed in 40 CFR 122.41(m)(4)(i)(A), (B), & (C). Any bypasses from this facility are subject to the reporting required in 40 CFR 122.41(l)(6) and per Missouri's Standard Conditions I, Section B, part 2.b. Additionally, Anticipated Bypasses include bypasses from peak flow basins or similar devices designed for peak wet weather flows.

✓ This facility does not anticipate bypassing.

#### Part IV – Cost Analysis for Compliance

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

✓ Not Applicable; The Department is not required to complete a cost analysis for compliance because the permit contains no new conditions or requirements that convey a new cost to the facility.

#### Part V – Administrative Requirements

On the basis of preliminary staff review and the application of applicable standards and regulations, the Department, as administrative agent for the Missouri Clean Water Commission, proposes to issue a permit(s) subject to certain effluent limitations, schedules, and special conditions contained herein and within the operating permit. The proposed determinations are tentative pending public comment.

#### WATER QUALITY STANDARD REVISION:

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

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

#### **PERMIT SYNCHRONIZATION:**

The Department of Natural Resources is currently undergoing a synchronization process for operating permits. Permits are normally issued on a five-year term, but to achieve synchronization many permits will need to be issued for less than the full five years allowed by regulation. The intent is that all permits within a watershed will move through the Watershed Based Management (WBM) cycle together will all expire in the same fiscal year. This will allow further streamlining by placing multiple permits within a smaller geographic area on public notice simultaneously, thereby reducing repeated administrative efforts. This will also allow the Department to explore a watershed based permitting effort at some point in the future. Renewal applications must continue to be submitted within 180 days of expiration, however, in instances where effluent data from the previous renewal is less than 4 years old, that data may be re-submitted to meet the requirements of the renewal application. If the permit provides a schedule of compliance for meeting new water quality based effluent limits beyond the expiration date of the permit, the time remaining in the schedule of compliance will be allotted in the renewed permit. With permit synchronization, this permit will expire in the 4<sup>th</sup> Quarter of calendar year 2026.

#### **PUBLIC NOTICE:**

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

✓ The Public Notice period for this operating permit was from January 13, 2023 to February 13, 2023. No responses received.

DATE OF FACT SHEET: DECEMBER 12, 2022

#### COMPLETED BY:

ASHLEY KNEEMUELLER, ENVIRONMENTAL PROGRAM ASSISTANT MISSOURI DEPARTMENT OF NATURAL RESOURCES WATER PROTECTION PROGRAM OPERATING PERMITS SECTION - DOMESTIC WASTEWATER UNIT (573) 526-1503
Ashley.Kneemueller@dnr.mo.gov

#### **Appendices**

**APPENDIX - CLASSIFICATION WORKSHEET:** 

Item	Points Possible	Points Assigned
Maximum Population Equivalent (P.E.) served , peak day	1 pt./10,000 PE or major fraction thereof. (Max 10 pts.)	.1
Design Flow (avg. day) or peak month's flow (avg. day) whichever is larger	1 pt. / MGD or major fraction thereof. (Max 10 pts.)	.1
Effluent Discharge		
Missouri or Mississippi River	0	
All other stream discharges except to losing streams and stream reaches supporting whole body contact recreation	1	
Discharge to lake or reservoir outside of designated whole body contact recreational area	2	
Discharge to losing stream, lake or reservoir area supporting whole body contact recreation	3	
Direct reuse or recycle of effluent	6	
Land Application/Irriga	ntion	
Drip Irrigation	3	
Land application/irrigation	5	5
Overland flow	4	
Variation in Raw Wastes (higher	st level only)	
Variations do not exceed those normally or typically expected	0	
Reoccurring deviations or excessive variations of 100 to 200 percent in strength and/or flow	2	
Reoccurring deviations or excessive variations of more than 200 percent in strength and/or flow	4	4
Department-approved pretreatment program	6	
Preliminary Treatme	nt	
STEP systems (operated by the permittee)	3	
Screening and/or comminution	3	
Grit removal	3	
Plant pumping of main flow	3	3
Flow equalization	5	
Primary Treatment		
Primary clarifiers	5	
Chemical addition (except chlorine, enzymes)	4	
Secondary Treatmer	nt	
Trickling filter and other fixed film media with or without secondary clarifiers	10	
Activated sludge (including aeration, oxidation ditches, sequencing batch reactors, membrane bioreactors, and contact stabilization)	15	
Stabilization ponds without aeration	5	5
Aerated lagoon	8	
Advanced Lagoon Treatment – Aerobic cells, anaerobic cells, covers, or fixed film	10	
Biological, physical, or chemical	12	
Carbon regeneration	4	
Total from page ONE (1)		17.2

#### APPENDIX - CLASSIFICATION WORKSHEET (CONTINUED):

ITEM	POINTS POSSIBLE	POINTS ASSIGNED
Solids Handling		
Sludge Holding	5	
Anaerobic digestion	10	
Aerobic digestion	6	
Evaporative sludge drying	2	
Mechanical dewatering	8	
Solids reduction (incineration, wet oxidation)	12	
Land application	6	
Disinfection		
Chlorination or comparable	5	
On-site generation of disinfectant (except UV light)	5	
Dechlorination	2	
UV light	4	
Required Laboratory Control Performed by Plant	Personnel (highest level only)	
Lab work done outside the plant	0	
Push – button or visual methods for simple test such as pH, settleable solids	3	
Additional procedures such as DO, COD, BOD, titrations, solids, volatile content	5	5
More advanced determinations, such as BOD seeding procedures, fecal coliform, nutrients, total oils, phenols, etc.	7	
Highly sophisticated instrumentation, such as atomic absorption and gas chromatograph	10	
Total from page TWO (2)		5
Total from page ONE (1)		17.2
Grand Total		22.2

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

#### **APPENDIX – Non-Detect Example Calculations:**

**Example**: Permittee has four samples for Pollutant X which has a method minimum level of 5 mg/L and is to report a Daily Maximum and Monthly Average.

```
Week 1 = 11.4 mg/L

Week 2 = Non-Detect or <5.0 mg/L

Week 3 = 7.1 mg/L

Week 4 = Non-Detect or <5.0 mg/L
```

For this example, use subpart (h) - For reporting an average based on a mix of detected and non-detected values (not including *E. coli*), assign a value of "0" for all non-detects for that reporting period and report the average of all the results.

```
11.4 + 0 + 7.1 + 0 = 18.5 \div 4 (number of samples) = 4.63 mg/L.
```

The Permittee reports a Monthly Average of 4.63 mg/L and a Daily maximum of 11.4 mg/L (Note the < symbol was dropped in the answers).

**Example**: Permittee has five samples for Pollutant Y that has a method minimum level of 9  $\mu$ g/L and is to report a Daily Maximum and Monthly Average.

```
Day 1 = Non-Detect or <9.0 \mu g/L
Day 2 = Non-Detect or <9.0 \mu g/L
Day 3 = Non-Detect or <9.0 \mu g/L
Day 4 = Non-Detect or <9.0 \mu g/L
Day 5 = Non-Detect or <9.0 \mu g/L
```

For this example, use subpart (g) - For reporting an average based on all non-detected values, remove the "<" sign from the values, average the values, and then add the "<" symbol back to the resulting average.

```
(9 + 9 + 9 + 9 + 9) \div 5 (number of samples) = <9 \mu g/L.
```

The Permittee reports a Monthly Average of  $<9.0 \,\mu\text{g/L}$  (retain the 'less than' symbol) and a Daily Maximum of  $<9.0 \,\mu\text{g/L}$ .

**Example**: Permittee has four samples for Pollutant Z where the first two tests were conducted using a method with a method minimum level of  $4 \mu g/L$  and the remaining two tests were conducted using a different method that has a method minimum level of  $<6 \mu g/L$  and is to report a Monthly Average and a Weekly Average.

```
Week 1 = Non-Detect or <4.0 \mug/L
Week 2 = Non-Detect or <4.0 \mug/L
Week 3 = Non-Detect or <6.0 \mug/L
Week 4 = Non-Detect or <6.0 \mug/L
```

For this example, use subpart (g) - For reporting an average based on all non-detected values, remove the "<" sign from the values, average the values, and then add the "<" symbol back to the resulting average.

```
(4+4+6+6) \div 4 (number of samples) = <5 \mu g/L. (Monthly)
```

The facility reports a Monthly Average of <5.0 µg/L and a Weekly Average of <6.0 µg/L.

#### **APPENDIX – Non-Detect Example Calculations (Continued):**

**Example**: Permittee has five samples for Pollutant Z where the first two tests were conducted using a method with a method minimum level of  $4 \mu g/L$  and the remaining three tests were conducted using a different method that has a method minimum level of  $<6 \mu g/L$  and is to report a Monthly Average and a Weekly Average.

```
Week 1 = Non-Detect or <4.0 \mug/L
Week 2 = Non-Detect or <4.0 \mug/L
Week 2 = Non-Detect or <6.0 \mug/L
Week 3 = Non-Detect or <6.0 \mug/L
Week 4 = Non-Detect or <6.0 \mug/L
```

For this example, use subpart (g) - For reporting an average based on all non-detected values, remove the "<" sign from the values, average the values, and then add the "<" symbol back to the resulting average.

```
(4 + 4 + 6 + 6 + 6) \div 5 (number of samples) = <5.2 \mu g/L. (Monthly) (4 + 6) \div 2 (number of samples) = <5 \mu g/L. (Week 2)
```

The facility reports a Monthly Average of  $<5.2 \mu g/L$  and a Weekly Average of  $<6.0 \mu g/L$  (report highest Weekly Average value)

**Example:** Permittee has four samples for Pollutant Z where the tests were conducted using a method with a method minimum level of  $10 \,\mu\text{g/L}$  and is to report a Monthly Average and Daily Maximum. The permit lists that Pollutant Z has a Department determined Minimum Quantification Level (ML) of  $130 \,\mu\text{g/L}$ .

```
Week 1 = 12 \mu g/L
Week 2 = 52 \mu g/L
Week 3 = \text{Non-Detect or} < 10 \mu g/L
Week 4 = 133 \mu g/L
```

For this example, use subpart (h) - For reporting an average based on a mix of detected and non-detected values (not including *E. coli*), assign a value of "0" for all non-detects for that reporting period and report the average of all the results.

```
For this example, (12 + 52 + 0 + 133) \div 4 (number of samples) = 197 \div 4 = 49.3 \mu g/L.
```

The facility reports a Monthly Average of 49.3 µg/L and a Daily Maximum of 133 µg/L.

**Example**: Permittee has five samples for *E. coli* which has a method minimum level of 1 #/100mL and is to report a Weekly Average (seven (7) day geometric mean) and a Monthly Average (thirty (30) day geometric mean).

```
Week 1 = 102 #/100mL

Week 2 (Monday) = 400 #/100mL

Week 2 (Friday) = Non-Detect or <1 #/100mL

Week 3 = 15 #/100mL

Week 4 = Non-Detect or <1 #/100mL
```

For this example, use subpart (i) - When E. coli is not detected above the method minimum level, the permittee must report the data qualifier signifying less than detection limit for that parameter (e.g., <1 #/100mL), if the method minimum level is 1 #/100mL). For reporting a geometric mean based on a mix of detected and non-detected values, use one-half of the detection limit (instead of zero) for non-detects when calculating geometric means. The Geometric Mean is calculated by multiplying all of the data points and then taking the nth root of this product, where n = # of samples collected.

```
The Monthly Average (30 day Geometric Mean) = 5th root of (102)(400)(0.5)(15)(0.5) = <math>5th root of 153,000 = 10.9 \#/100mL. The 7 day Geometric Mean = 2nd root of (400)(0.5) = 2nd root of 200 = 14.1 \#/100mL. (Week 2)
```

The Permittee reports a Monthly Average (30 day Geometric Mean) of 10.9 #/100mL and a Weekly Average (7 day geometric mean) of 102 #/100mL (report highest Weekly Average value)



## 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.

- 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.
- Sample and Monitoring Calculations. Calculations for all sample and monitoring results which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in the permit.
- Test Procedures. The analytical and sampling methods used shall conform 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.

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

#### 2. Non-compliance Reporting.

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



## THE MISSOURI DEPARTMENT OF NATURAL RESOURCES MISSOURI CLEAN WATER COMMISSION REVISED AUGUST 1, 2014

- b. The following shall be included as information which must be reported within 24 hours under this paragraph.
  - Any unanticipated bypass which exceeds any effluent limitation in the permit.
  - ii. Any upset which exceeds any effluent limitation in the permit.
  - Violation of a maximum daily discharge limitation for any of the pollutants listed by the Department in the permit required to be reported within 24 hours.
- c. The Department may waive the written report on a case-by-case basis for reports under paragraph 2. b. of this section if the oral report has been received within 24 hours.
- 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
- 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.
- Monitoring results shall be reported to the Department no later than the 28<sup>th</sup> day of the month following the end of the reporting period.

#### Section C – Bypass/Upset Requirements

#### 1. **Definitions.**

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

#### 2. Bypass Requirements.

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

#### b. Notice.

- 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:
  - 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
  - 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:
  - 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.
- Burden of proof. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

#### Section D – Administrative Requirements

- 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



## THE MISSOURI DEPARTMENT OF NATURAL RESOURCES MISSOURI CLEAN WATER COMMISSION REVISED AUGUST 1, 2014

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

#### 2. Duty to Reapply.

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

- for applications to be submitted later than the expiration date of the existing permit.)
- c. A permittees with currently effective general permit shall submit an application for renewal at least 30 days before the existing permit expires, unless the permittee has been notified by the Department that an earlier application must be made. The Department may grant permission for a later submission date. (The Department shall not grant permission for applications to be submitted later than the expiration date of the existing permit.)
- 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.
- 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;
  - Having obtained this permit by misrepresentation or failure to disclose fully any relevant facts;
  - 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.
- 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.
- Property Rights. This permit does not convey any property rights of any sort, or any exclusive privilege.



## THE MISSOURI DEPARTMENT OF NATURAL RESOURCES MISSOURI CLEAN WATER COMMISSION REVISED AUGUST 1, 2014

- 10. Duty to Provide Information. The permittee shall furnish to the Department, within a reasonable time, any information which the Department may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The permittee shall also furnish to the Department upon request, copies of records required to be kept by this permit.
- 11. Inspection and Entry. The permittee shall allow the Department, or an authorized representative (including an authorized contractor acting as a representative of the Department), upon presentation of credentials and other documents as may be required by law, to:
  - Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of the permit;
  - Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
  - 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.

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



## THE MISSOURI DEPARTMENT OF NATURAL RESOURCES MISSOURI CLEAN WATER COMMISSION REVISED MAY 1, 2013

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

#### 1. Definitions

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

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

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

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

#### 2. Identification of Industrial Discharges

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

#### 3. Application Information

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

#### 4. Notice to the Department

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

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

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

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

## THE MISSOURI DEPARTMENT OF NATURAL RESOURCES MISSOURI CLEAN WATER COMMISSION August 1, 2019

#### PART III - BIOSOLIDS AND SLUDGE FROM DOMESTIC TREATMENT FACILITIES

#### SECTION A – GENERAL REQUIREMENTS

- 1. PART III Standard Conditions pertain to biosolids and sludge requirements under the Missouri Clean Water Law and regulations for domestic and municipal wastewater and also incorporates federal sludge disposal requirements under 40 CFR Part 503 for domestic wastewater. The Environmental Protection Agency (EPA) has principal authority for permitting and enforcement of the federal sludge regulations under 40 CFR Part 503 for domestic biosolids and sludge.
- 2. PART III Standard Conditions apply only to biosolids and sludge generated at domestic wastewater treatment facilities, including public owned treatment works (POTW) and privately owned facilities.
- 3. Biosolids and Sludge Use and Disposal Practices:
  - a. The permittee is authorized to operate the biosolids and sludge generating, treatment, storage, use, and disposal facilities listed in the facility description of this permit.
  - b. The permittee shall not exceed the design sludge/biosolids volume listed in the facility description and shall not use biosolids or sludge disposal methods that are not listed in the facility description, without prior approval of the permitting authority.
  - c. For facilities operating under general operating permits that incorporate Standard Conditions PART III, the facility is authorized to operate the biosolids and sludge generating, treatment, storage, use and disposal facilities identified in the original operating permit application, subsequent renewal applications or subsequent written approval by the department.
- 4. Biosolids or Sludge Received from other Facilities:
  - a. Permittees may accept domestic wastewater biosolids or sludge from other facilities as long as the permittee's design sludge capacity is not exceeded and the treatment facility performance is not impaired.
  - b. The permittee shall obtain a signed statement from the biosolids or sludge generator or hauler that certifies the type and source of the sludge
- 5. Nothing in this permit precludes the initiation of legal action under local laws, except to the extent local laws are preempted by state law.
- 6. This permit does not preclude the enforcement of other applicable environmental regulations such as odor emissions under the Missouri Air Pollution Control Lawand regulations.
- 7. This permit may (after due process) be modified, or alternatively revoked and reissued, to comply with any applicable biosolids or sludge disposal standard or limitation issued or approved under Section 405(d) of the Clean Water Act or under Chapter 644 RSMo.
- 8. In addition to Standard Conditions PART III, the Department may include biosolids and sludge limitations in the special conditions portion or other sections of a site specific permit.
- 9. Exceptions to Standard Conditions PART III may be authorized on a case-by-case basis by the Department, as follows:
  - a. The Department may modify a site-specific permit following permit notice provisions as applicable under 10 CSR 20-6.020, 40 CFR § 124.10, and 40 CFR § 501.15(a)(2)(ix)(E).
  - b. Exceptions cannot be granted where prohibited by the federal sludge regulations under 40 CFR Part 503.

#### SECTION B - DEFINITIONS

- 1. Best Management Practices are practices to prevent or reduce the pollution of waters of the state and include agronomic loading rates (nitrogen based), soil conservation practices, spill prevention and maintenance procedures and other site restrictions.
- 2. Biosolids means organic fertilizer or soil amendment produced by the treatment of domestic wastewater sludge.
- 3. Biosolids land application facility is a facility where biosolids are spread onto the land at agronomic rates for production of food, feed or fiber. The facility includes any structures necessary to store the biosolids until soil, weather, and crop conditions are favorable for land application.
- 4. Class A biosolids means a material that has met the Class A pathogen reduction requirements or equivalent treatment by a Process to Further Reduce Pathogens (PFRP) in accordance with 40 CFR Part 503.
- 5. Class B biosolids means a material that has met the Class B pathogen reduction requirements or equivalent treatment by a Process to Significantly Reduce Pathogens (PSRP) in accordance with 40 CFR Part 503.
- 6. Domestic wastewater means wastewater originating from the sanitary conveniences of residences, commercial buildings, factories and institutions; or co-mingled sanitary and industrial wastewater processed by a (POTW) or a privately owned facility.
- 7. Feed crops are crops produced primarily for consumption by animals.
- 8. Fiber crops are crops such as flax and cotton.
- 9. Food crops are crops consumed by humans which include, but is not limted to, fruits, vegetables and tobacco.
- 10. Industrial wastewater means any wastewater, also known as process wastewater, not defined as domestic wastewater. Per 40 CFR Part 122.2, process wastewater means any water which, during manufacturing or processing, comes into direct contact with or results from the production or use of any raw material, intermediate product, finished product, byproduct, or waste product. Land application of industrial wastewater, residuals or sludge is not authorized by Standard Conditions PART III.
- 11. Mechanical treatment plants are wastewater treatment facilities that use mechanical devices to treat wastewater, including, sand filters, extended aeration, activated sludge, contact stabilization, trickling filters, rotating biological contact systems, and other similar facilities. It does not include wastewater treatment lagoons or constructed wetlands for wastewater treatment.
- 12. Plant Available Nitrogen (PAN) is nitrogen that will be available to plants during the growing seasons after biosolids application.
- 13. Public contact site is land with a high potential for contact by the public. This includes, but is not limited to, public parks, ball fields, cemeteries, plant nurseries, turf farms, and golf courses.
- 14. Sludge is the solid, semisolid, or liquid residue removed during the treatment of wastewater. Sludge includes septage removed from septic tanks or equivalent facilities. Sludge does not include carbon coal byproducts (CCBs), sewage sludge incinerator ash, or grit/screenings generated during preliminary treatment of domestic sewage.
- 15. Sludge lagoon is part of a mechanical wastewater treatment facility. A sludge lagoon is an earthen or concrete lined basin that receives sludge that has been removed from a wastewater treatment facility. It does not include a wastewater treatment lagoon or sludge treatment units that are not a part of a mechanical wastewater treatment facility.
- 16. Septage is the sludge pumped from residential septic tanks, cesspools, portable toilets, Type III marine sanitation devices, or similar treatment works such as sludge holding structures from residential wastewater treatment facilities with design populations of less than 150 people. Septage does not include grease removed from grease traps at a restaurant or material removed from septic tanks and other similar treatment works that have received industrial wastewater. The standard for biosolids from septage is different from other sludges. See Section H for more information.

#### SECTION C - MECHANICAL WASTEWATER TREATMENT FACILITIES

- 1. Biosolids or sludge shall be routinely removed from wastewater treatment facilities and handled according to the permit facility description and the requirements of Standard Conditions PART III or in accordance with Section A.3.c., above.
- 2. The permittee shall operate storage and treatment facilities, as defined by Section 644.016(23), RSMo, so that there is no biosolids or sludge discharged to waters of the state. Agricultural storm water discharges are exempt under the provisions of Section 644.059, RSMo.
- 3. Mechanical treatment plants shall have separate biosolids or sludge storage compartments in accordance with 10 CSR 20, Chapter 8. Failure to remove biosolids or sludge from these storage compartments on the required design schedule is a violation of this permit.

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

- 1. Permittees that use contract haulers, under the authority of their operating permit, to dispose of biosolids or sludge, are responsible for compliance with all the terms of this permit. Contract haulers that assume the responsibility of the final disposal of biosolids or sludge, including biosolids land application, must obtain a Missouri State Operating Permit unless the hauler transports the biosolids or sludge to another permitted treatment facility.
- 2. Testing of biosolids or sludge, other than total solids content, is not required if biosolids or sludge are hauled to a permitted wastewater treatment facility, unless it is required by the accepting facility.

#### SECTION E - INCINERATION OF SLUDGE

- Please be aware that sludge incineration facilities may be subject to the requirements of 40 CFR Part 503 Subpart E, Missouri Air Conservation Commission regulations under 10 CSR 10, and solid waste management regulations under 10 CSR 80, as applicable.
- 2. Permittee may be authorized under the facility description of this permit to store incineration ash in lagoons or ash ponds. This permit does not authorize the disposal of incineration ash. Incineration ash shall be disposed in accordance with 10 CSR 80; or, if the ash is determined to be hazardous, with 10 CSR 25.
- 3. In addition to normal sludge monitoring, incineration facilities shall report the following as part of the annual report, mass of sludge incinerated and mass of ash generated. Permittee shall also provide the name of the ash disposal facility and permit number if applicable.

#### SECTION F – SURFACE DISPOSAL SITES AND BIOSOLIDS AND SLUDGE LAGOONS

- 1. Please be aware that surface disposal sites of biosolids or sludge from wastewater treatment facilities may be subject to other laws including the requirements in 40 CFR Part 503 Subpart C, Missouri Air Conservation Commission regulations under 10 CSR 10, and solid waste management regulations under 10 CSR 80, as applicable.
- 2. Biosolids or sludge storage lagoons are temporary facilities and are not required to obtain a permit as a solid waste management facility under 10 CSR 80. In order to maintain biosolids or sludge storage lagoons as storage facilities, accumulated biosolids or sludge must be removed routinely, but not less than once every two years unless an alternate schedule is approved in the permit. The amount of biosolids or sludge removed will be dependent on biosolids or sludge generation and accumulation in the facility. Enough biosolids or sludge must be removed to maintain adequate storage capacity in the facility.
  - a. In order to avoid damage to the lagoon seal during cleaning, the permittee may leave a layer of biosolids or sludge on the bottom of the lagoon, upon prior approval of the Department; or
  - b. Permittee shall close the lagoon in accordance with Section I.

#### SECTION G - LAND APPLICATION OF BIOSOLIDS

- 1. The permittee shall not land apply biosolids unless land application is authorized in the facility description, the special conditions of the issued NPDES permit, or in accordance with Section A.3.c., above.
- 2. This permit only authorizes "Class A" or "Class B" biosolids derived from domestic wastewater to be land applied onto grass land, crop land, timber, or other similar agricultural or silviculture lands at rates suitable for beneficial use as organic fertilizer and soil conditioner.
- 3. Class A Biosolids Requirements: Biosolids shall meet Class A requirements for application to public contact sites, residential lawns, home gardens or sold and/or given away in a bag or other container.
- 4. Class B biosolids that are land applied to agricultural and public contact sites shall comply with the following restrictions:
  - a. Food crops that touch the biosolids/soil mixture and are totally above the land surface shall not be harvested for 14 months after application of biosolids.
  - b. Food crops below the surface of the land shall not be harvested for 20 months after application of biosolids when the biosolids remain on the land surface for four months or longer prior to incorporation into the soil.
  - c. Food crops below the surface of the land shall not be harvested for 38 months after application of biosolids when the biosolids remain on the land surface for less than four months prior to incorporation into the soil.
  - d. Animal grazing shall not be allowed for 30 days after application of biosolids.
  - e. Food crops, feed crops, and fiber crops shall not be harvested for 30 days after application of biosolids.
  - f. Turf shall not be harvested for one year after application of biosolids if used for lawns or high public contact sites in close proximity to populated areas such as city parks or golf courses.
  - g. After Class B biosolids have been land applied to public contact sites with high potential for public exposure, as defined in 40 CFR § 503.31, such as city parks or golf courses, access must be restricted for 12 months.
  - h. After Class B biosolids have been land applied public contact sites with low potential for public exposure as defined in 40 CFR § 503.31, such as a rural land application or reclamation sites, access must be restricted for 30 days.

#### 5. Pollutant limits

- a. Biosolids shall be monitored to determine the quality for regulated pollutants listed in Table 1, below. Limits for any pollutants not listed below may be established in the permit.
- b. The number of samples taken is directly related to the amount of biosolids or sludge produced by the facility (See Section J, below). Samples should be taken only during land application periods. When necessary, it is permissible to mix biosolids with lower concentrations of biosolids as well as other suitable Department approved material to achieve pollutant concentration below those identified in Table 1, below.
- c. Table 1 gives the ceiling concentration for biosolids. Biosolids which exceed the concentrations in Table 1 may not be land applied.

TABLE 1

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

d. Table 2 below gives the low metal concentration for biosolids. Because of its higher quality, biosolids with pollutant concentrations below those listed in Table 2 can safely be applied to agricultural land, forest, public contact sites, lawns, home gardens or be given away without further analysis. Biosolids containing metals in concentrations above the low metals concentrations but below the ceiling concentration limits may be land applied but shall not exceed the annual loading rates in Table 3 and the cumulative loading rates in Table 4. The permittee is required to track polluntant loading onto application sites for parameters that have exceeded the low metal concentration limits.

TABLE 2

IABLE Z		
Biosolids Low Metal Concentration		
Pollutant	Milligrams per kilogram dry weight	
Arsenic	41	
Cadmium	39	
Copper	1,500	
Lead	300	
Mercury	17	
Nickel	420	
Selenium	100	
Zinc	2,800	

e. Annual pollutant loading rate.

Table 3

Biosolids Annual Loading Rate		
Pollutant	Kg/ha (lbs./ac) per year	
Arsenic	2.0 (1.79)	
Cadmium	1.9 (1.70)	
Copper	75 (66.94)	
Lead	15 (13.39)	
Mercury	0.85 (0.76)	
Nickel	21 (18.74)	
Selenium	5.0 (4.46)	
Zinc	140 (124.96)	

f. Cumulative pollutant loading rates.

Table 4

Biosolids Cumulative Pollutant Loading Rate		
Pollutant	Kg/ha (lbs./ac)	
Arsenic	41 (37)	
Cadmium	39 (35)	
Copper	1500 (1339)	
Lead	300 (268)	
Mercury	17 (15)	
Nickel	420 (375)	
Selenium	100 (89)	
Zinc	2800 (2499)	

- 6. Best Management Practices. The permittee shall use the following best management practices during land application activities to prevent the discharge of biosolids to waters of the state.
  - a. Biosolids shall not be applied to the land if it is likely to adversely affect a threatened or endangered species listed under § 4 of the Endangered Species Act or its designated critical habitat.
  - $b. \quad Apply \ biosolids \ only \ at the \ agronomic \ rate \ of \ nitrogen \ needed \ (see \ 5.c. \ of \ this \ section).$
  - c. The applicator must document the Plant Available Nitrogen (PAN) loadings, available nitrogen in the soil, and crop

nitrogen removal when either of the following occurs: 1) When biosolids are greater than 50,000 mg/kgTN; or 2) When biosolids are land applied at an application rate greater than two dry tons per acre per year.

- i. PAN can be determined as follows:
  - (Nitrate + nitrite nitrogen) + (organic nitrogen x 0.2) + (ammonia nitrogen x volatilization factor  $^{1}$ ).

    Volatilization factor is 0.7 for surface application and 1 for subsurface application. Alternative volitalization factors and mineralization rates can be utilized on a case-by-case basis.
- ii. Crop nutrient production/removal to be based on crop specific nitrogen needs and realistic yield goals. NO TE: There are a number of reference documents on the Missouri Department of Natural Resources website that are informative to implement best management practices in the proper management of biosolids, including crop specific nitrogen needs, realistic yields on a county by county basis and other supporting references.
- iii. Biosolids that are applied at agronomic rates shall not cause the annual pollutant loading rates identified in Table 3 to be exceeded.
- d. Buffer zones are as follows:
  - i. 300 feet of a water supply well, sinkhole, water supply reservoir or water supply intake in a stream;
  - 300 feet of a losing stream, no discharge stream, stream stretches designated for whole body contact recreation, wild and scenic rivers, Ozark National Scenic Riverways or outstandingstate resource waters as listed in the Water Quality Standards, 10 CSR 20-7.031;
  - iii. 150 feet of dwellings or public use areas;
  - iv. 100 feet (35 feet if biosolids application is down-gradient or the buffer zone is entirely vegetated) of lake, pond, wetlands or gaining streams (perennial or intermittent);
  - v. 50 feet of a property line. Buffer distances from property lines may be waived with written permission from neighboring property owner.
  - vi. For the application of dry, cake or liquid biosolids that are subsurface injected, buffer zones identified in 5.d.i. through 5.d.iii above, may be reduced to 100 feet. The buffer zone may be reduced to 35 feet if the buffer zone is permanently vegetated. Subsurface injection does not include methods or technology reflective of combination surface/shallow soil incorporation.
- e. Slope limitation for application sites are as follows:
  - i. For slopes less than or equal to 6 percent, no rate limitation;
  - ii. Applied to a slope 7 to 12 percent, the applicator may apply biosolids when soil conservation practices are used to meet the minimum erosion levels;
  - iii. Slopes > 12 percent, apply biosolids only when grass is vegetated and maintained with at least 80 percent ground cover at a rate of two dry tons per acre per year or less.
  - iv. Dry, cake or liquid biosolids that are subsurface injected, may be applied on slopes not to exceed 20 percent. Subsurface injection does not include the use of methods or technology reflective of combination surface/shallow soil incorporation.
- f. No biosolids may be land applied in an area that it is reasonably certain that pollutants will be transported into waters of the state.
- g. Biosolids may be land applied to sites with soil that are snow covered, frozen, or saturated with liquid when site restrictions or other controls are provided to prevent pollutants from being discharged to waters of the state during snowmelt or stormwater runoff. During inclement weather or unfavorable soil conditions use the following management practices:
  - A maximum field slope of 6% and a minimum 300 feet grass buffer between the application site and waters of the state. A 35 feet grass buffer may be utilized for the application of dry, cake or liquid biosolids that are subsurface injected. Subsurface injection does not include the use of mthods or technology refletive of combination surface/shallow soil incorporation;
  - ii. A maximum field slope of 2% and 100 feet grass buffer between the application site and waters of the state. A 35 feet grass buffer may be used for the application of dry, cake or liquid biosolids that are subsurface injected. Subsurface injection does not included the use of methods or technology refletive of combination surface/shallow soil incorporation;
  - iii. Other best management practices approved by the Department.

#### SECTION H - SEPTAGE

- 1. Haulers that land apply septage must obtain a state permit. An operating permit is not required for septage haulers who transport septage to another permitted treatment facility for disposal.
- 2. Do not apply more than 30,000 gallons of septage per acre per year or the volume otherwise stipulated in the operating permit.
- 3. Septic tanks are designed to retain sludge for one to three years which will allow for a larger reduction in pathogens and vectors, as compared to mechanical treatment facilities.
- 4. Septage must comply with Class B biosolids regarding pathogen and vector attraction reduction requirements before it may be applied to crops, pastures or timberland. To meet required pathogen and vector reduction requirements, mix 50 pounds of hydrated lime for every 1,000 gallons of septage and maintain a septage pH of at least 12 pH standard units for 30 minutes or more prior to application.
- 5. Lime is to be added to the pump truck and not directly to the septic tanks, as lime would harm the beneficial bacteria of the septic tank.
- 6. As residential septage contains relatively low levels of metals, the testing of metals in septage is not required.

#### SECTION I— CLOSURE REQUIREMENTS

- 1. This section applies to all wastewater facilities (mechanical and lagoons) and sludge or biosolids storage and treatment facilities. It does not apply to land application sites.
- 2. Permittees of a domestic wastewater facility who plan to cease operation must obtain Department approval of a closure plan which addresses proper removal and disposal of all sludges and/or biosolids. Permittee must maintain this permit until the facility is closed in accordance with the approved closure plan per 10 CSR 20 6.010 and 10 CSR 20 6.015.
- 3. Biosolids or sludge that are left in place during closure of a lagoon or earthen structure or ash pond shall not exceed the agricultural loading rates as follows:
  - a. Biosolids and sludge shall meet the monitoring and land application limits for agricultural rates as referenced in Section G, above.
  - b. If a wastewater treatment lagoon has been in operation for 15 years or more without sludge removal, the sludge in the lagoon qualifies as a Class B biosolids with respect to pathogens due to anaerobic digestion, and testing for fecal coliform is not required. For other lagoons, testing for fecal coliform is required to show compliance with Class B biosolids limitations. In order to reach Class B biosolids requirements, fecal coliform must be less than 2,000,000 colony forming units or 2,000,000 most probable number. All fecal samples must be presented as geometric mean per gram.
  - c. The allowable nitrogen loading that may be left in the lagoon shall be based on the plant available nitrogen (PAN) loading. For a grass cover crop, the allowable PAN is 300 pounds/acre. Alternative, site-specific application rates may be included in the closure plan for department consideration.
    - i. PAN can be determined as follows:
       (Nitrate + nitrite nitrogen) + (organic nitrogen x 0.2) + (ammonia nitrogen x volatilization factor¹).

       i. Volatilization factor is 0.7 for surface application and 1 for subsurface application. Alternative volitalization factors and mineralization rates can be utilized on a case-by-case basis
- 4. Domestic wastewater treatment lagoons with a design treatment capacity less than or equal to 150 persons, are "similar treatment works" under the definition of septage. Therefore the sludge within the lagoons may be treated as septage during closure activities. See Section B, above. Under the septage category, residuals may be left in place as follows:
  - a. Testing for metals or fecal coliform is not required.
  - b. If the wastewater treatment lagoon has been in use for less than 15 years, mix lime with the sludge at a rate of 50 pounds of hydrated lime per 1000 gallons (134 cubic feet) of sludge.
  - c. The amount of sludge that may be left in the lagoon shall be based on the plant available nitrogen (PAN) loading. 100 dry tons/acre of sludge may be left in the basin without testing for nitrogen. If 100 dry tons/acre or more will be left in the lagoon, test for nitrogen and determine the PAN using the calculation above. Allowable PAN loading is 300 pounds/acre.
- 5. Biosolids or sludge left within the domestic lagoon shall be mixed with soil on at least a 1 to 1 ratio, and unless otherwise approved, the lagoon berm shall be demolished, and the site shall be graded and contain ≥70% vegetative density over 100% of the site so as to avoid ponding of storm water and provide adequate surface water drainage without creating erosion. Alternative biosolids or sludge and soil mixing ratios may be included in the closure plan for department consideration.
- 6. Lagoon and earthen structure closure activities shall obtain a storm water permit for land disturbance activities that equal or exceed one acre in accordance with 10 CSR 20-6.200.
- 7. When closing a mechanical wastewater plant, all biosolids or sludge must be cleaned out and disposed of in accordance with the Department approved closure plan before the permit for the facility can be terminated.
  - a. Land must be stabilized which includes any grading, alternate use or fate upon approval by the Department, remediation, or other work that exposes sediment to stormwater per 10 CSR 20-6.200. The site shall be graded and contain  $\geq 70\%$  vegetative density over 100% of the site, so as to avoid ponding of storm water and provide adequate

- surface water drainage without creating erosion.
- b. Hazardous Waste shall not be land applied or disposed during mechanical plant closures unless in accordance with Missouri Hazardous Waste Management Law and Regulations pursuant to 10 CSR 25.
- c. After demolition of the mechanical plant, the site must only contain clean fill defined in Section 260.200.1(6) RSMo as uncontaminated soil, rock, sand, gravel, concrete, asphaltic concrete, cinderblocks, brick, minimal amounts of wood and metal, and inert solids as approved by rule or policy of the Department for fill, reclamation, or other beneficial use. Other solid wastes must be removed.
- 8. If biosolids or sludge from the domestic lagoon or mechanical treatment plant exceeds agricultural rates under Section G and/or I, a landfill permit or solid waste disposal permit must be obtained if the permittee chooses to seek authorization for onsite sludge disposal under the Missouri Solid Waste Management Law and regulations per 10 CSR 80, and the permittee must comply with the surface disposal requirements under 40 CFR Part 503, Subpart C.

#### SECTION J – MONITORING FREQUENCY

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

#### TABLE 5

T. I D LL C			
Biosolids or Sludge	Monitoring Frequency (See Notes 1, and 2)		
produced and disposed (Dry Tons per Year)	Metals, Pathogens and Vectors, Total Phosphorus, Total Potassium	Nitrogen TKN, Nitrogen PAN <sup>1</sup>	Priority Pollutants <sup>2</sup>
319 or less	1/year	1 per month	1/year
320 to 1650	4/year	1 per month	1/year
1651 to 16,500	6/year	1 per month	1/year
16,501+	12/year	1 per month	1/year

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

Note 1: Total solids: A grab sample of sludge shall be tested one per day during land application periods for percent total solids. This data shall be used to calculate the dry tons of sludge applied per acre.

Note 2: Table 5 is not applicable for incineration and permit holders that landfill their sludge.

- 2. Permittees that operate wastewater treatment lagoons, peak flow equalization basins, combined sewer overflow basins or biosolids or sludge lagoons that are cleaned out once a year or less, may choose to sample only when the biosolids or sludge is removed or the lagoon is closed. Test one composite sample for each 319 dry tons of biosolids or sludge removed from the lagoon during the reporting year or during lagoon closure. Composite sample must represent various areas at one-foot depth.
- 3. Additional testing may be required in the special conditions or other sections of the permit.
- 4. Biosolids and sludge monitoring shall be conducted in accordance with federal regulation 40 CFR § 503.8, Sampling and analysis.

#### SECTION K - RECORD KEEPING AND REPORTING REQUIREMENTS

- 1. The permittee shall maintain records on file at the facility for at least five years for the items listed in Standard Conditions PART III and any additional items in the Special Conditions section of this permit. This shall include dates when the biosolids or sludge facility is checked for proper operation, records of maintenance and repairs and other relevant information.
- 2. Reporting period
  - a. By February 19<sup>th</sup> of each year, applicable facilities shall submit an annual report for the previous calendar year period for all mechanical wastewater treatment facilities, sludge lagoons, and biosolids or sludge disposal facilities.
  - b. Permittees with wastewater treatment lagoons shall submit the above annual report only when biosolids or sludge are removed from the lagoon during the report period or when the lagoon is closed.
- 3. Report Form. The annual report shall be prepared on report forms provided by the Department or equivalent forms approved by the Department.
- 4. Reports shall be submitted as follows:
  - Major facilities, which are those serving 10,000 persons or more or with a design flow equal to or greater than 1 million gallons per day or that are required to have an approved pretreatment program, shall report to both the Department and EPA if the facility land applied, disposed of biosolids by surface disposal, or operated a sewage sludge incinerator. All other facilities shall maintain their biosolids or sludge records and keep them available to Department personnel upon request. State reports shall be submitted to the address listed as follows:

DNR regional or other applicable office listed in the permit (see cover letter of permit)

<sup>&</sup>lt;sup>2</sup> Priority pollutants (40 CFR 122.21, Appendix D, Tables II and III) are required only for permit holders that must have a pre-treatment program. Monitoring requirements may be modified and incorporated into the operating permit by the Department on a case-by-case basis.

Reports to EPA must be electronically submitted online via the Central Data Exchange at: https://cdx.epa.gov/ Additional information is available at: https://www.epa.gov/biosolids/compliance-and-annual-reporting-guidance-about-clean-water-act-laws

- 5. Annual report contents. The annual report shall include the following:
  - a. Biosolids and sludge testing performed. If testing was conducted at a greater frequency than what is required by the permit, all test results must be included in the report.
  - b. Biosolids or sludge quantity shall be reported as dry tons for the quantity produced and/or disposed.
  - c. Gallons and % solids data used to calculate the dry ton amounts.
  - d. Description of any unusual operating conditions.
  - e. Final disposal method, dates, and location, and person responsible for hauling and disposal.
    - This must include the name and address for the hauler and sludge facility. If hauled to a municipal
      wastewater treatment facility, sanitary landfill, or other approved treatment facility, give the name of that
      facility.
    - ii. Include a description of the type of hauling equipment used and the capacity in tons, gallons, or cubic feet.

#### f. Contract Hauler Activities:

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

#### g. Land Application Sites:

- i. Report the location of each application site, the annual and cumulative dry tons/acre for each site, and the landowners name and address. The location for each spreading site shall be given as alegal description for nearest 1/4, 1/4, Section, Township, Range, and county, or UTM coordinates. The facility shall report PAN when either of the following occurs: 1) When biosolids are greater than 50,000 mg/kgTN; or 2) when biosolids are land applied at an application rate greater than two dry tons per acre per year.
- ii. If the "Low Metals" criteria are exceeded, report the annual and cumulative pollutant loading rates in pounds per acre for each applicable pollutant, and report the percent of cumulative pollutant loading which has been reached at each site.
- iii. Report the method used for compliance with pathogen and vector attraction requirements.
- iv. Report soil test results for pH and phosphorus. If no soil was tested during the year, report the last date when tested and the results.



MISSOURI DEPARTMENT OF NATURAL RESOURCES

APR 23 2021

WATER PROTECTION PROGRAM

FORM B2 - APPLICATION FOR OPERATING PERMIT FOR FACILITIES THAT RECEIVE PRIMARILY DOMESTIC WASTE AND HAVE A DESIGN FLOW MORE THAN Protection Program 100,000 GALLONS PER DAY

FACILITY NAME	the second secon
LINCOLN WWTP	
PERMIT NO.	COUNTY
M0-0120227	BENTON
APPLICATION OVERVIEW	

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

#### BASIC APPLICATION INFORMATION

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

#### SUPPLEMENTAL APPLICATION INFORMATION

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

#### SIUs are defined as:

- All Categorical Industrial Users, or CIUs, subject to Categorical Pretreatment Standards under 40 Code of Federal Regulations 403.6 and 40 Code of Federal Regulations 403.6 and 40 CFR Chapter 1, Subchapter N.
- Any other industrial user that meets one or more of the following:
  - Discharges an average of 25,000 gallons per day or more of process wastewater to the treatment works (with certain exclusions).
  - Contributes a process waste stream that makes up 5%or more of the average dry weather hydraulic ΪÍ. or organic capacity of the treatment plant.
  - iii. Is designated as an SIU by the control authority.
  - Is otherwise required by the permitting authority to provide the information.
- Combined Sewer Systems. A treatment works that has a combined sewer system must complete Part G -Combined Sewer Systems.

#### ALL APPLICANTS MUST COMPLETE PARTS A, B and C

APR 23 2021

MISSOURI DEPARTMENT OF NATURAL RESOURCES

WATER PROTECTION PROGRAM

Water Protection Procedure AGENCY USE ONLY CHECK NUMBER

FORM B2 – APPLICATION FOR AN OPERATING PERMIT FOR FACILITIES THAT RECEIVE PRIMARILY DOMESTIC WASTE AND HAVE A DESIGN FLOW MORE THAN 100,000 GALLONS PER DAY

DATE RECEIVED FEE SUBMITTED JET PAY CONFIRMATION NUMBER

PART A – BASIC APPLICATION INFORMATION		
1. THIS APPLICATION IS FOR:		
☐ An operating permit for a new or unpermitted facilifulde completed Antidegradation Review or rectangly An operating permit renewal: Permit #MO-	quest to conduct an Antidegradation Re	
An operating permit modification: Permit #MO	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
LINCOLN WWTP	CITY	660-547-2718   STATE   ZIP CODE
122 E. MAIN	LINCOLN	mo 65338
		COUNTY
		BENTON
2.2 UTM Coordinates Easting (X): 4(9)7 Nort For Universal Transverse Mercator (UTM), Zone	tning (Y): <u>ฯ೩೯</u> ୭५५५ <i>15 North referenced to North American</i>	Datum 1983 (NAD83)
2.3 Name of receiving stream: Terrange To	TARRITARY TO INTE	80 CREEK
2.4 Number of Outfalls:   Emerce Wastewater outf	falls: stormwater outfalls:	instream monitoring sites:
3. OWNER		
NAME CITY OF LINCOLN	EMAIL ADDRESS [incma: atshop@jma; ]	TELEPHONE NUMBER WITH AREA CODE
Po Box 17	LINCOLN	STATE ZIP CODE  MO 653.38
3.1 Request review of draft permit prior to Public Notice		
3.2 Are you a Publically Owned Treatment Works (PC If yes, is the Financial Questionnaire attached?	OTW)? XYES NO See: https://dnr.mo.gov/form	ns/780-2511-f.pdf
3.3 Are you a Privately Owned Treatment Facility?	☐ YES ☐ NO	
3.4 Are you a Privately Owned Treatment Facility regu	ulated by the Public Service Commissio	on (PSC)? YES NO
4. CONTINUING AUTHORITY		
CITY OF LINCOLN	linc maint shop @ gmail.c	TELEPHONE NUMBER WITH AREA CODE  LOCALIZATION  STATE  TELEPHONE NUMBER WITH AREA CODE  TELEPHONE NUMBER WITH AREA CODE  STATE  TELEPHONE NUMBER WITH AREA CODE  TELEPHONE NUMBER WITH AREA CODE
PO BOX 1)	LINGLA	STATE ZIP CODE  (\$338
If the Continuing Authority is different than the Owner, includescription of the responsibilities of both parties within the	ide a copy of the contract agreement be	etween the two parties and a
5. OPERATOR		
NAME	TITLE	CERTIFICATE NUMBER (IF APPLICABLE)
NATHAN LINES EMAIL ADDRESS	PUBLIC WOLKS DELECTO. TELEPHONE NUMBER WITH AREA CODE	a 13671
linemaint shop @ gmail.com	- 640-723-4115	
6. FACILITY CONTACT		A.F. Stranger
NATHAN LINES	TITLE PUBLE WOA TELEPHONE NUMBER WITH ARI	KS DIRECTOR
linemaintshop @ gmail.com		
ADDRESS	CITY	STATE ZIP CODE
Po Box 17	LINCOLN	Mo 65358
780-1805 (10-20)		Page 2

	TY NAME	PERMIT NO.	OUTFALL NO.
	ENCOLN WWTP	MO-0120227	
	T A - BASIC APPLICATION INFORM	IATION	
7.	FACILITY INFORMATION		NAVIOLE NA
7.1	treatment units, including disinfection	n (e.g. – Chlorination and Dechlorination) ocess changes in the routing of wastewa	esses of the treatment plant. Show all of the , influents, and outfalls. Specify where samples ter during dry weather and peak wet weather.
	ommus		12:50-40
		CENTER P 66.14	NOT NO. 2 ACRES
			GENTER PIVOT NO. 1 42 ACRES
	And the second s		STORAGE CELL

780-1805 (10-20)

1.	MO-012022	. 7	OUTF	ALL NO.			
	A – BASIC APPLICATION INFORMATION						
	FACILITY INFORMATION (continued)		- 1				
SGE ATTACAMENTS 2.2	Map. Attach to this application an aerial or topographic map of the area extending at least one mile beyond facility property boundaries. This map must show the outline of the facility and the following information. A map can be obtained by visiting the following website: <a href="https://modnr.maps.arcgis.com/apps/webappviewer/index.html?id=1d81212e0854478ca0dae87c33c8c5ce">https://modnr.maps.arcgis.com/apps/webappviewer/index.html?id=1d81212e0854478ca0dae87c33c8c5ce</a> a. The area surrounding the treatment plant, including all unit processes. b. The major pipes or other structures through which wastewater enters the treatment works and the pipes or other structures through which treated wastewater is discharged from the treatment plant. Include outfalls from bypass piping, if applicable. c. The actual point of discharge. d. Wells, springs, other surface water bodies and drinking water wells that are: 1) within ½ mile of the property boundaries of the treatment works, and 2) listed in public record or otherwise known to the applicant.						
7.3	Number of people presently connected or population equivale	ent (P.E.): 119	0	Design P.E			
7.4	7.4 Connections to the facility: Number of units presently connected: Residential: <u>420</u> Commericial: <u>しし</u> Industrial <u>0</u>						
7.5	Design Flow 200, 000	Actual Flow					
	Will discharge be continuous through the year?  Discharge will occur during the following months:  How many days of the week will discharge occur?	No ( — <b>No</b>		ce Jeazean	TON SYSTEM		
7.8	Does the facility accept or process leachate from landfills?		Yes 🗌	No 🗹	P. C. (2000) - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000 - 1000		
7.9	Is wastewater land applied?  If yes, please attach Form I See: https://dnr.mo.gov/forms/7	80-1686-f.pdf	Yes <b>⊠</b> î	No 🗌			
7.10	Does the facility discharge to a losing stream or sinkhole?		Yes 🗌	No 🔯			
7.11	Has a wasteload allocation study been completed for this fac	ility?	Yes 🗌	No 🗌			
8.	LABORATORY CONTROL INFORMATION						
	LABORATORY WORK CONDUCTED BY PLANT PERSONN Lab work conducted outside of plant. Push-button or visual methods for simple test such as pH, se Additional procedures such as Dissolved Oxygen, Chemical of Oxygen Demand, titrations, solids, volatile content. More advanced determinations such as BOD seeding proced nutrients, total oils, phenols, etc. Highly sophisticated instrumentation, such as atomic absorption.	ettleable solids. Oxygen Demand, ures, fecal coliforr	n,	Yes ☑ Yes ☑ Yes ☑ Yes ☐ Yes ☐	No		

•	TY NAME	PERMIT NO.		OUTFALL	NO.	
	THEOLH WHITE	MO- 012	0227			
9.	T A - BASIC APPLICATION INFORM					
	SLUDGE HANDLING, USE AND DI					
9.1	Is the sludge a hazardous waste as				No 🗌	
9.2	Sludge production (Including sludge				Actual Dry	
9.3	Sludge storage provided: Cub	oic feet; Da	ays of storage;	Average perce	nt solids of	sludge;
	☐ No sludge storage is provided. [	Sludge is stored	l in lagoon.			
9.4	Type of storage:	Holding Tank Basin Concrete Pad	☐ Buildin	า โ		
9.5	Sludge Treatment:	Condicte 1 au	U Other (	Describe)		
9.6	☐ Anaerobic Digester ☐ Storage ☐ Aerobic Digester ☐ Air or H	Tank eat Drying	☐ Lime Stabilizatio	<b>4</b>	agoon ther (Attach	n Description)
	<ul><li>☑ Land Application</li><li>☐ Contract</li><li>☐ Surface Disposal (Sludge Disposat</li><li>☐ Other (Attach Explanation Sheet)</li></ul>	l Lagoon, Sludge		ment Facility wo Years)	☐ Solid ☐ Incine	Waste Landfill eration
9.7	Person responsible for hauling sludge  By Applicant By Others	to disposal facilit	y:			
NAME				EMAIL ADDRESS		
ADDRES	S	C	ПҮ		STATE	ZIP CODE
CONTAC	TPERSON		ELEPHONE NUMBER WITH AR	EA CODE	PERMIT NO	).
					140	
9.8	Sludge use or disposal facility:  By Applicant By Others (	Complete below)			MO-	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,
VAME	El Symphotolic El By Others (	Complete below)		EMAIL ADDRESS		
ADDRESS		C	ΤΥ		STATE	ZIP CODE
CONTACT	PERSON		ELEPHONE NUMBER WITH ARE	A CODE		
			THE HOME HOMBER WITH ARE	ACODE	PERMIT NO	•
0.9	Does the sludge or biosolids disposal ☑Yes ☐ No (Explain)	comply with Fede	eral Sludge Regulation	40 CFR 503?	MO-	
		END	OF PART A			
780-1805	(10-20)					Page 5

FACILITY NAME PERMIT NO.	Lour	FALL NO.
LINCOLN WWTP MO-01202	27	ALL NO.
PART B – ADDITIONAL APPLICATION INFORMATION  10. COLLECTION SYSTEM		
and any maritopal saterite collection systems connec	ted to this facility? Yes	×No
If yes, please list all connected to this facility, contact phone	e number and length of each of	collection system
FACILITY	CONTACT PHONE N	
10.2 Length of sanitary sewer collection system in miles (If avail	able, include totals from satelli	ite collection systems \ 6.4.2 \ \ \
If yes, briefly explain any steps underway or planned to min	MYes ∐No nimize inflow and infiltration: ← CCLACED 2354	' DE CLAY PROF (LITTLE
SDR 35 AND LINED 25,816' ALGO	REPLACES SO MAN	HOLES AND LINED
SO MANHOLES, CONSTANTLY LOOKENG F	BR GUTTEL & SUMP	PUMO DATHS ILLEAGUE
Connected		
11. BYPASSING  Does any bypassing occur anywhere in the collection system or at		
If yes, explain:		·
12. OPERATION AND MAINTENANCE PERFORMED BY CON	FRACTOR(S)	
Are any operational or maintenance aspects (related to wastowater	treatment and officent evelts	
	reacherit and entuent quality)	of the treatment works the
Yes No M		
f Yes, list the name, address, telephone number and status of each Attach additional pages if necessary.)	contractor and describe the c	ontractor's responsibilities.
MAILING ADDRESS		
ELEPHONE NUMBER WITH AREA CODE	EMAIL ADDRESS	
ESPONSIBILITIES OF CONTRACTOR		
3. SCHEDULED IMPROVEMENTS AND SCHEDULES OF IMP	LEMENTATION	
Provide information about any uncompleted implementation schedule rastewater treatment, effluent quality, or design capacity of the treat applementation schedules or is planning several improvements, subr	or uncompleted plans for imp	provements that will affect the orks has several different ch.
80-1805 (10-20)		

Page 6

FACILITY NAME		1. ~~	PERMIT NO.			OUTFALL	NO.		
PART B – ADDITIO		WWTP	MO- OIZ	1022	7				
14. EFFLUENT			FORWATION						
Applicants must pro through which effloreported must be bacomply with QA/QC not addressed by 40 more than four and idx?SID=2d29852e2	vide effluer uent is disc sed on data requiremer ) CFR Part one-half ye	nt testing data charged. Do a collected th hts of 40 CFF 136. At a min ars apart. Se	not include in Prough analys R Part 136 and Primum, effluer Pe 40 CFR 130	nformation of is conducted dother app nt testing da 5.3 for suffice	of combined so d using 40 CF ropriate QA/Q ata must be ba ciently sensitiv	ewer overflows FR Part 136 mel C requirements ased on at least re methods: http	in this sectio thods. In add for standard three samp	n. All info lition, this I methods <b>les</b> and r	ormation data must s for analytes must be no
Outfall Number Em	ERGENY	DUTTE	L ONLY						
	METER			IUM DAILY	VALUE	Α	VERAGE DA	AILY VAL	.UE
IAIVA			Va	lue	Units	Value	Units	Numb	er of Samples
pH (Minimum)					S.U.		S.U.		
pH (Maximum)					S.U.		S.U.		
Flow Rate					MGD		MGD		
*For pH report a min	imum and	a maximum	daily value						
POLLUTAN	т		UM DAILY AVERAG CHARGE		AGE DAILY D	GE DAILY DISCHARGE		ANALYTICAL	
POLLUTAN		Conc.	Units	Conc.	Units	Number of Samples	METHOD ML/N		ML/MDL
Conventional and No	onconvention	onal Compou	ınds		,				
BIOCHEMICAL OXYGEN	BOD <sub>5</sub>		mg/L		mg/L				
DEMAND (Report One)	CBOD₅		mg/L		mg/L				
E. COLI			#/100 mL		#/100 mL				
TOTAL SUSPENDE SOLIDS (TSS)	_		mg/L		mg/L				
TOTAL PHOSPHOR	RUS		mg/L		mg/L				
TOTAL KJELDAHL NITROGEN		mg/L		mg/L					
NITRITES + NITRATES			mg/L		mg/L				
AMMONIA AS N			mg/L		mg/L				
CHLORINE* (TOTAL RESIDUAL, TRC)			mg/L		mg/L				
DISSOLVED OXYG	EN		mg/L		mg/L				
OIL and GREASE			mg/L		mg/L				

mg/L

END OF PART B

mg/L

780-1805 (10-20)

\*Report only if facility chlorinates

OTHER:

FACILITY NAME	PERMIT NO.	OUTFALL NO.				
LETION WINTP	MO-0120227					
PART C - CERTIFICATION		13				
15. ELECTRONIC DISCHARGE MONIT	ORING REPORT (eDMR)	SUBMISSION SYSTEM				
Per 40 CFR Part 127, National Pollutant Dis and monitoring shall be submitted by the pe	charge Elimination Systen rmittee via an electronic sy options must be checked ir	(NPDES) Electronic Reporting Rule, reporting of effluent limits stem to ensure a timely, complete, accurate, and nationallyorder for this application to be considered complete. Visit				
intps://drif.tilo.gov/env/wpp/edifil.tittilitelor	monnation on the departi	lent's edivir system and now to register.				
☐ I will register an account online to partici Management (MoGEM) before any repo		DMR system through the Missouri Gateway for Environmental with the Electronic Reporting Rule.				
🕅 I have already registered an account onl	ine to participate in the de	partment's eDMR system through MoGEM.				
I have submitted a written request for a v	vaiver from electronic repo	rting. See instructions for further information regarding waivers.				
The permit I am applying for does not re	quire the submission of dis	charge monitoring reports.				
16. JETPAY						
and make an online payment.	-	stem called JetPay. Use the URL provided to access JetPay				
New Site Specific Permit: <a href="https://magic.collector">https://magic.collector</a> Construction Permits: <a href="https://magic.collector">https://magic.collector</a> Modification Fee: <a href="https://magic.collector">https://magic.collector</a>	ectorsolutions.com/magic-					
17. CERTIFICATION						
	<b>.</b>					
applicants must complete all applicable sect	ions as explained in the A	must be signed by an officer of the company or city official. All oplication Overview. By signing this certification statement, impleted all sections that apply to the facility for which this				
ALL APPLICANTS MUST COMPLETE THE	FOLLOWING CERTIFIC	ATION.				
Leartify under panalty of law that this docum	ant and all attachments we	re prepared under my direction or supervision in accordance				
with a system designed to assure that qualification inquiry of the person or persons who manage	ed personnel properly gat e the system or those pers nowledge and belief, true,	ner and evaluate the information submitted. Based on my ons directly responsible for gathering the information, the accurate and complete. I am aware that there are significant				
PRINTED NAME		FICIAL TITLE (MUST BE AN OFFICER OF THE COMPANY OR CITY OFFICIAL)				
Na ! !		0 // Dava				
NATHAN LINES SIGNATURE		Public Works DIRECTOR				
TELEPHONE NUMBER WITH AREA CODE	W					
060-547-361	3					
4-9-21						
Upon request of the permitting authority, you at the treatment works or identify appropriate	must submit any other inf	ormation necessary to assess wastewater treatment practices				
Send Completed Form to:	cleanwaterpermits(	odnr.mo.gov				
	OR					
Department of Natural Resources						
Water Protection Program						
ATTN: NPDES Permits and Engineering Section						
	P.O. Box of Jefferson City, MO					
	END OF PA					
REFER TO THE APPLICATION OVE	REFER TO THE APPLICATION OVERVIEW TO DETERMINE WHICH PARTS OF FORM B2 YOU MUST COMPLETE.					
Do not complete the remainder of this application, unless at least one of the following statements applies to your facility:						
1. Your facility design flow is equal to or greater than 1,000,000 gallons per day.						
2. Your facility is a pretreatment		· · · · · · · · · · · · · · · · · · ·				
3. Your facility is a combined						
		ng returned. Permit fees for returned applications shall be not that are withdrawn by the applicant shall be forfeited.				
ponig p		The area and the area and area applicant situation for incited.				

780-1805 (10-20)

#### **INSTRUCTIONS FOR COMPLETING FORM B2**

## APPLICATION FOR OPERATING PERMIT FOR FACILITIES THAT RECEIVE PRIMARILY DOMESTIC WASTE AND HAVE A DESIGN FLOW MORE THAN 100,000 GALLONS PER DAY, Form 780-1805

(Facilities less than or equal to 100,000 gallons per day of domestic waste must use Form B, 780-1512.)

#### PART A - BASIC APPLICATION INFORMATION

1. Check the appropriate box. **Do not check more than one item.** Operating permits refer to permits issued by the Department of Natural Resources, Water Protection Program. If an Antidegradation Review has not been conducted, submit the application located at the following link, to the Missouri Department of Natural Resources, Water Protection Program, P.O. Box 176, Jefferson City, MO 65102: <a href="https://doi.org/10.1007/jnms.1780-1893-f.pdf">dnr.mo.gov/forms/780-1893-f.pdf</a>.

1.1 Fees information:

#### DOMESTIC OPERATING PERMIT FEES - PRIVATELY OWNED TREATMENT WORKS (Non-POTW)

Annual operating permit fees are based on flow.

New domestic wastewater treatment facilities must submit the annual fee with the original application.

If the application is for a site-specific permit re-issuance, send no fees. You will be invoiced separately by the department on the anniversary date of the original permit. Permit fees must be current for the department to reissue the operating permit. Late fees of 2% per month are charged and added to outstanding annual fees.

PUBLICLY OWNED SEWER SYSTEM OPERATING PERMIT FEES (City, public sewer district, public water district, or other publicly owned treatment works that charge a service connection fee.) Annual fee is based on number of service connections. Fees listings are found in 10 CSR 20-6.011 which is available at

http://s1.sos.mo.gov/cmsimages/adrules/csr/current/10csr/10c20-6.pdf. New public sewer system facilities should not submit any fee as the department will invoice the permittee.

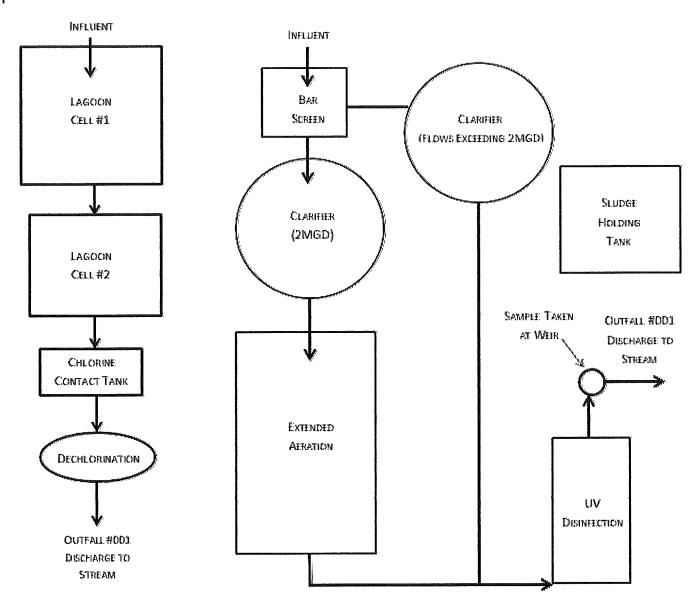
#### **OPERATING PERMIT MODIFICATIONS**, including transfers, are subject to the following fees:

- a. Operating permits that charge a service connection fee \$200 each.
- b. All other permits
  - (1) \$100 each for a minor modification (name changes, address changes, other non-substantive changes) or
  - (2) A fee equal to 25% of the facility's annual operating fee for a major modification.
- 2. Name of Facility Include the name by which this facility is locally known. Example: Southwest Sewage Treatment Plant, Country Club Mobile Home Park, etc. Provide the street address or location of the facility. If the facility lacks a street name or route number, provide the names of the closest intersection, highway, country road, etc.
- 2.1 Self-explanatory
- 2.2 Global Positioning System, or GPS, is a satellite-based navigation system. The department prefers that a GPS receiver is used and the displayed coordinates submitted. If access to a GPS receiver is not available, use a mapping system to approximate the coordinates; the department's mapping system is available at
  - https://modnr.maps.arcgis.com/apps/webappviewer/index.html?id=1d81212e0854478ca0dae87c33c8c5ce.
- 2.3-2.4 Self-explanatory. For the No Exposure Certification for Exclusion Application: https://dnr.mo.gov/forms/780-2828-f.pdf
- 3. Owner Provide the legal name, mailing address, phone number, and email address of the owner. The owner identified in this section and subsequently reflected on the certificate page of the operating permit, is the owner of the regulated activity/discharge being applied for and is not necessarily the owner of the real property on which the activity or discharge is occurring.
- 3.1 Prior to submitting a permit to public notice, the Department of Natural Resources shall provide the permit applicant 10 days to review the draft permit for nonsubstantive drafting errors. In the interest of expediting permit issuance, permit applicants may waive the opportunity to review draft permits prior to public notice.
- 3.2-3.4 Self-explanatory. See the following link for Financial Questionnaire: https://dnr.mo.gov/forms/780-2511-f.pdf
- 4. Continuing Authority A continuing authority is a company, business, entity or person(s) that will be operating the facility and/or ensuring compliance with the permit requirements. A continuing authority is not, however, an entity or individual that is contractually hired by the permittee to sample or operate and maintain the system for a defined time period, such as a certified operator or analytical laboratory. To access the regulatory requirement regarding continuing authority, 10 CSR 20-6.010(2), please visit <a href="http://s1.sos.mo.gov/cmsimages/adrules/csr/current/10csr/10c20-6.pdf">http://s1.sos.mo.gov/cmsimages/adrules/csr/current/10csr/10c20-6.pdf</a>. If the continuing authority is not an individual(s), government, or otherwise required to register with the Missouri Secretary of State (SoS), then the business name must be listed exactly as it appears on the SoS's webpage:

  <a href="https://bsd.sos.mo.gov/BusinessEntity/BESearch.aspx?SearchType=0">https://bsd.sos.mo.gov/BusinessEntity/BESearch.aspx?SearchType=0</a>
- 5. Operator Provide the name, certificate number, title, mailing address, primary phone number, and email address of the operator of the facility.
- 6. Provide the name, title, mailing address, primary phone number, and email address of a person who is thoroughly familiar with the operation of the facility and with the facts reported in this application and who can be contacted by the department.

#### 7.1 Process Flow Diagram Examples

WASTEWATER TREATMENT LAGOON WASTEWATER TREATMENT FACILITY



#### 7.2 A map is available on the web at

https://modnr.maps.arcgis.com/apps/webappviewer/index.html?id=1d81212e0854478ca0dae87c33c8c5ce or from the Department of Natural Resources' Geological Survey in Rolla at 573-368-2125.

7.3-7.8 Self – explanatory.

7.9 If wastewater is land-applied submit Form I: <a href="https://www.dnr.mo.gov/forms/780-1686-f.pdf">www.dnr.mo.gov/forms/780-1686-f.pdf</a>.

7.10-8. Self-explanatory

9.1 A copy of 10 CSR 25 is available at <a href="https://www.sos.mo.gov/adrules/csr/current/10csr/10csr.asp#10-25">www.sos.mo.gov/adrules/csr/current/10csr/10csr.asp#10-25</a>.

9.2-9.9 Self – explanatory.

#### PART B - ADDITIONAL APPLICATION INFORMATION

10.-14. Self-explanatory

## INSTRUCTIONS FOR COMPLETING FORM B2 APPLICATION FOR OPERATING PERMIT FOR FACILITIES THAT RECEIVE PRIMARILY DOMESTIC WASTE AND HAVE A DESIGN FLOW MORE THAN 100,000 GALLONS PER DAY (continued)

#### PART C - CERTIFICATION

15. Electronic Discharge Monitoring Report (eDMR) Submission System – Visit the eDMR site at <a href="http://dnr.mo.gov/env/wpp/edmr.htm">http://dnr.mo.gov/env/wpp/edmr.htm</a> and click on the "Facility Participation Package" link. The eDMR Permit Holder and Certifier Registration Form and information about the eDMR system can be found in the Facility Participation Package.

Waivers to electronic reporting may be granted by the department per 40 CFR 127.15 under certain, special circumstances. A written request must be submitted to the department for approval. Waivers may be granted to facilities owned or operated by:

- a. members of religious communities that choose not to use certain technologies or
- b. permittees located in areas with limited broadband access. The National Telecommunications and Information Administration (NTIA) in collaboration with the Federal Communications Commission (FCC) have created a broadband internet availability map: <a href="https://broadbandmap.fcc.gov/#/">https://broadbandmap.fcc.gov/#/</a>. Please contact the department if you need assistance.
- 16. JetPay

Applicants can pay fees online by credit card or eCheck through a system called JetPay.

- a. Per Section 37.001, RSMo, a transaction fee will be included. The transaction fee is paid to the third party vendor JetPay, not the Department of Natural Resources.
- b. Be sure to select the correct fee type and corresponding URL to ensure your payment is applied appropriately. If you are unsure what type of fee to pay, please contact the Water Protection Program's Budget, Fees, and Grants Management Unit by phone at (573) 522-1485 for assistance.
- c. Upon successful completion of your payment, JetPay provides a payment confirmation. Submit this form with a copy of the payment confirmation if requesting a new permit or a permit modification. For permit renewals of active permits, the Department will invoice fees annually in a separate request.
- d. If you are unable to make your payment online, but want to pay with credit card, you may email your name, phone number, and invoice number, if applicable, to <a href="mailto:sherry.bell@dnr.mo.gov">sherry.bell@dnr.mo.gov</a>. The Budget, Fees, and Grants Management Unit will contact you to assist with the credit card payment. Please do not include your credit card information in the email.
- e. Applicants can find fee rates in 10 CSR 20-6.011 (https://dnr.mo.gov/pubs/pub2564.htm).
- 17. Signature All applications must be signed as follows and the signatures must be original:
  - For a corporation, by an officer having responsibility for the overall operation of the regulated facility or activity or for environmental matters.
  - b. For a partnership or sole proprietorship, by a general partner or the proprietor.
  - c. For a municipal, state, federal or other public facility, by either a principal executive officer or by an individual having overall responsibility for environmental matters at the facility.

#### PART D - EXPANDED EFFLUENT TESTING DATA

18 Self-explanatory. ML/MDL means minimum limit or minimum detection limit.

#### PART E - TOXICITY TESTING DATA

19. Self- explanatory.

### PART F - INDUSTRIAL USER DISCHARGES AND RCRA/CERCLA WASTES

- 20. Federal regulations are available through the U.S. Government Printing Office at https://www.gpo.gov/fdsys/browse/collectionCfr.action?collectionCode=CFR.
- 20.1 Self explanatory
- 20,2 A noncategorical significant industrial user is an industrial user that is not a CIU and meets one or more of the following:
  - i. Discharges an average of 25,000 gallons per day or more of process wastewater to the treatment works (with certain exclusions).
  - ii. Contributes a process waste stream that makes up 5% or more of the average dry weather hydraulic or organic capacity of the treatment plant.
  - iii. Is designated as an SIU by the control authority.
- 21,-23,4 Self-explanatory.

### PART G – COMBINED SEWER SYSTEMS 24.-25.4 Self-explanatory.

### Submittal of an incomplete application may result in the application being returned.

This completed form and any attachments along with the applicable permit fees, should be submitted to:

cleanwaterpermits@dnr.mo.gov

Of

Department of Natural Resources
Water Protection Program
ATTN: NPDES Permits and Engineering Section
P.O. Box 176
Jefferson City, MO 65102-0176

Map of regional offices with addresses and phone numbers are available on the web at <a href="http://dnr.mo.gov/regions/">http://dnr.mo.gov/regions/</a>. If there are any questions concerning this form, contact the appropriate regional office or the Department of Natural Resources, Water Protection Program, Operating Permits Section at 800-361-4827 or 573-522-4502.



## MISSOURI DEPARTMENT OF NATURAL RESOURCES WATER PROTECTION PROGRAM

## FORM I – PERMIT APPLICATION FOR OPERATION OF WASTEWATER IRRIGATION SYSTEMS

FOR AGENCY	USE ONLY
PERMIT NUMBER	
MO -	
DATE RECEIVED	

INST	RUCTIONS: The following forms must be submitted with	Form I: FORM B or B2 for domestic wastewater.  FORM A for industrial wastewater.
1. F/	ACILITY INFORMATION	
1,1	Facility Name	1.2 Permit Number
	LINCOLN WINTP	MO-0120227
1.3		Municipal ☐ State/National Park ☐ Seasonal business
***************************************	☐ Municipal with Pretreatment Program or Significant Indust	rial Users
	SIC Codes (list all that apply, in order of importance)	
1.4	Months when the business or enterprise will operate or gener ☐ Part of year (list Months): _	
1.5	This system is designed for:  No-discharge Partial irrigation when feasible and control irrigation during recreation season (April – October) and control irrigation (explain)	-
1.6	List the Facility outfalls which will be applicable to the irrigation Outfall Numbers: 半のこ * #2003	on system.
2. S	TORAGE BASINS	
2.1	Number of storage basins:	
	Type of basin: Steel Concrete	☐ Fiberglass
	☐ Earthen with membrane liner	
3. L	AND APPLICATION SYSTEM	
3.1	Number of irrigation sites 2 Total Acres	108.1
	Location: 14, 14, 14, Sec 22 TULN R	AZW BENTOW County 42 Acres
	Location:¼,¼, Sec \(\frac{72}{22}\) T\(\frac{41N}{2N}\) R\(\frac{2}{2}\) Location:¼,¼, Sec \(\frac{72}{22}\) T\(\frac{42N}{2N}\) R\(\frac{2}{2}\) Attach pages as needed.	22W BENTON County (66.1 Acres
3.2	Attach a site map showing topography, storage basins, irriga other pertinent features.	tion sites, property boundary, streams, wells, roads, dwellings, and
3.3	Type of vegetation: ☐ Grass hay ☐ Pasture ☐	Timber Row crops Other (describe)
3.4	Wastewater flow (dry weather) gallons/day:	
	Average annual: 175,000 Seasonal	Off-season
	Months of seasonal flow: 12	
L		

780-1686 (08-14)

3. LAND APPLICATION SYSTEM (continued)	
3.5 Land Application rate per acre (design flow including 1 in 10 year st	ormwater flows):
Design: 24 inches/year 1/4 inches/hour	inches/day
Actual:inches/yearinches/hour	inches/dayinches/week
Total Irrigation per year (gallons): 70. 444 เชีย Design บู	Actual Actual
Actual months used for Irrigation (check all that apply): ☐ Jan 🏚 Feb 🔀 Mar 🗹 Apr 🗹 May 🗹 Jun 🗗 Jul 🔀	Aug IA Sep ⊠ Oct ĈÎ Nov ĈÎ Dec
3.6 Land Application Rate is based on:  ☐ Nutrient Management Plan (N&P)  ☑ Hydraulic Loading ☐ Other (describe)	
3.7 Equipment type: ☐ Sprinklers ☐ Gated pipe ☒ Center piv Equipment Flow Capacity: ユー・シー Gallons per hour ป	rot
3.8 Public Use Areas. Public access shall not be allowed to public use of Public Access Restriction:  ☐ Site is Fenced ☐ Wastewater disinfection prior to in ☐ Other (describe):	-
3.9 Separation distance (in feet) from the outside edge of the wetted irri  Permanent flowing stream Losing Stream	Intermittent (wet weather) stream (OS) Lake or pond
3.10 The facility must develop and retain an Operation and Maintenance	(O&M) Plan for the irrigation system.
Date of O&M Plan: IN PROCESS	
4. CERTIFICATION	
I certify under penalty of law that I have personally examined and am fam attachments and that based on my inquiry of those individuals immediated the information is true, accurate and complete. I am aware that there are including the possibility of fine or imprisonment.	y responsible for obtaining this information, I believe that
OWNER OR AUTHORIZED REPRESENTATIVE	OFFICIAL TITLE
NATHAN LINES	PUBLIC WORRS DIRECTOR TELEPHONE NUMBER WITH AREA CODE
line maint shop @ amail.com	660-547-3613
NATHAN LINES  EMAIL ADDRESS  // / / / / / / / / / / / / / / / / /	DATE SIGNED 4-8-2 /
780-1686 (08-14)	



MO 780-2511 (12/18)

# MISSOURI DEPARTMENT OF NATURAL RESOURCES WATER PROTECTION PROGRAM FINANCIAL QUESTIONNAIRE

NO.	NOTE FINANCIAL INFORMATION THAT IS NOT PROVIDED THROUGH THIS FORM WILL BE OBTAINED BY THE DEPARTMENT FROM READILY AVAILABLE SOURCES.				
1.	GENERAL INFORMATION				
FACIL	LINCOLN WWTP	PERMIT NUMBER #MO- 0120227			
CITT	Lincoln	Benton *			
2.	GENERAL FINANCIAL INFORMATION (ALL FACILITIES)				
2.1	Number of connections to the facility: Residential 420	Commercial 60 Industrial 0			
2.2	Current sewer user rate (Based on a 5,000 gallon per month usa	age): \$\\\ \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\			
2.3	Current annual operating costs for the facility (excludes deprecia	ation): \$273,860.00			
2.4	Bond rating (if applicable):				
2.5	Bonding capacity:	"Auditoria granus"			
2.6	Current outstanding debt relating to wastewater collection and tr	eatment: \$3,020,000,0	O		
2.7	Amount within the current user rate used toward payments on or related to the current wastewater infrastructure:	utstanding debt \$34.00			
2.8	Attach any relevant financial statements.				
3.	FINANCIAL INFORMATION REQUIRED FROM MUNICIPALITI	ES	-		
3.1	Municipality's Full Market Property Value:				
3.2	Municipality's Overall Net Debt:	4,035,000.00			
3.3	Municipality's Property Tax Revenues (levied) [A]:	2,001,211			
3.4	Municipality's Property Tax Revenues (collected) [B]:	#12000.00			
3.5	5 Municipality's Property Tax Collection Rate ([B]/[A]):				
4.	FINANCIAL INFORMATION REQUIRED FROM SEWER DISTR				
4.1	Total connections to the sewer district: Residential	Commercial Industrial			
4.2	When facilities require upgrades, how are the costs divided? Will Will the costs be divided across the sewer district?	the homes connected to the upgraded facility bear t	he costs?		
5.	ADDITIONAL CONSIDERATIONS (ALL FACILITIES)				
5.1	Provide a list of major infrastructure or other investments in envir indicate any possible overlap or complications (attach sheets as	onmental projects. Include project timing and costs a necessary):	ınd		
	JUST COMPLETED WW PRO				
	No DISCHARGE SYSTEM	•			
5.2	Provide a list of any other relevant local community economic correquirements (attach sheets as necessary):	nditions that may impact the ability to afford new per	nit		

PAGE 1 of 2

6. CERTIFICATION				
FINANCIAL CONTACT		T official pro-		
49%		OFFICIAL TITLE	Λ	
RUTH ECK	HOFF	CITY	CLERK	
EMAIL ADDRESS		TELEPHONE NUMBER	WITH AREA CODE	
lincolncitye	lerk @ gmail.com	660-5	47-27	18
I certify under penalty of law that this	s document and all attachments were	nropared under m	u disastian ana	one and date of the second
with a system designed to assure (i)	iai uudiilleu beisonnei properiv aathe	r and evaluate the	information out	mittad Danad an acce
I middle of the person of persons will	Julianane me system or those hereo	ne directiv recenen	úblo for wath auto	
I mornation submitted is, to the best	Of My knowledge and belief frue ac	curate and comple	oto I am avvara	that there are structured
penalties for submitting false information	ation, including the possibility of fine	and imprisonment	for knowing viol	ations.
OWNER OR AUTHORIZED REPRESENTATIVE		OFFICIAL TITLE	<b>J</b>	
NATHAN L	ENES	PUBLEC	WORKS	Deacasa
SIGNATURE	-1000	108626	DATE SIGNED	DIRECTOR
	46		1	
	TOTAL DESCRIPTION OF THE PROPERTY OF THE PROPE		4-9-2	1
The Financial Questionnaire it to be their Missouri State Operating Permi	UCTIONS FOR COMPLETING THE completed by municipalities, sewer dit. The Financial Questionnaire is to be ACILITIES THAT RECEIVE PRIMARI	listricts, and water	supply districts	
LEGO THAN ON EQUAL TO 100,00	U GALLONS PER DAY and FORM B	32: APPLICATION	EOR OPERATI	NO DEDMIT COD
I LYOURINES THAT KEDEIVE PRIMA	ARILY DOMESTIC WASTE AND HA	VE A DESIGN FI C	ON OPERATION MORE THA	NO PERIVIT FOR N 100 000 GALLONS
PER DAY.			W WORL III	N 100,000 GALLONS
4 05115011111111111111111111111111111111				
GENERAL INFORMATION  Number and the site of the s	- Provide the name by which the fac	cility is locally know	n, the Missouri	State Operating Permit
indifficer, and the city and co	Dunity where the facility is incated			
complete.	ORMATION (ALL FACILITIES) - Mu	inicipalities, sewer	districts, and wa	ater supply districts are to
2.1 Self-explanatory.				
2.2 Provide the rate that a house	sehold would be charged for sewer se	anijoo if thay you E	000	- · · · · · · · · · · · · · · · · · · ·
2.3 Provide the cost to operate	and maintain the wastewater facility	annually	ouu ganons pe	r month.
2.4 Bond ratings can be found by	here: https://emma.msrb.org/lssuerH	omePage/Homens	ngesEorC62euei	in6-705160
2.5 General obligation bond cap	pacity allowed by constitution: Cities :	= up to 20% of tax	able tangible pro	onerty: Sewer
districts = up to 5% of taxab	ole tangible property.			· -
2.6 Provide the amount of debt	owed on wastewater collection and t	reatment. Debt info	rmation is typic	cally available from your
Community a amuar imancia	ai statements			
This may be a persentage	er's monthly sewer bill that is used to	ward debt owed or	wastewater co	llection and treatment.
This may be a percentage of 2.8 Self-explanatory.	or dollar amount.			
3. FINANCIAL INFORMATION	I PEOLIEP EDOM MUNICIPALITU	50 March 1 88		
3.1 Full Market Property Value i	NREQUIRED FROM MUNICIPALITIES is typically available through your core	=5 - Municipalities	are to complete	e.
3.2 Debt information is typically	available from your community's anr	minumity or state as	ssessor's office.	•
3.3 Property tax revenues are to	ypically available from your communi	tudi ilitariciai statei	nenis. I statomonto D	Proporty for soles for
Missouri communities can b	be found in the annual auditor's report	ty s annuai iirianua t	ii statements, P	roperty tax rates for
https://app.auditor.mo.gov/A	AuditReports/AudRpt2.aspx?id=31.			
3.4 Property Taxes Levied = (Remarks)	eal Property Assessed Value) * (Pror	perty Tax Rate).		
This information is typically	available through your community or	state assessor's o	ffice and your c	ommunity's annual
ilianciai statements. Proper	Tty tax rates for Missouri communities	can be found in th	e annual audito	or's report:
nttps://app.auditor.mo.gov/A	AuditReports/AudRpt2.aspx?id=31.			
3.5 Property tax collection rate	= (Property Tax Revenues) ÷ (Proper	ty Taxes Levied).		
4. FINANCIAL INFORMATION	REQUIRED FROM SEWER DISTR	ICTS – Sewer Dist	ricts and Water	Supply Districts are to
compiete.				
<ul><li>4.1-4.2 Self-explanatory.</li><li>5. ADDITIONAL CONSIDERATIONS</li></ul>	TIONS (ALL FACILITIES) AND A			
complete.	TIONS (ALL FACILITIES) Municipa	alities, sewer distric	ts, and water si	upply districts are to
5.1-5.2 Self-explanatory.				
6. CERTIFICATION – Provide	the name and contact information for	r the individual	oon room! (	a fluorestation of
requests for your community	y. This form must be signed by your o	rano munity'e "awaa	r" or "authori=a	d representatives. The
owner for a municipality is e	ither the principal executive officer or	ranking elected of	i oi autiitii200 ficial	u representative The
If there are any questions concerning	this form or your Missouri State Ope	erating Permit, conf	act the Departn	nent of Natural
Resources, Water Protection Program	n, Operating Permits Section at 800-	361-4827 or 573-7	51-6825.	

