

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

Permit No.: MO-G130000

Owner: < name >  
Address: < address >

Continuing Authority: < name, or Same as above >  
Address: < address, or Same as above >

Facility Name: < name >  
Facility Address: < physical address >

Legal Description: ¼, ¼, ¼, Sec. xx, TxxN, RxxW, < county > County  
UTM Coordinates: X = , Y =

Receiving Stream: < receiving stream > < (C, P, L1, L2, L3) >  
First Classified Stream and ID: < 1<sup>st</sup> classified stream > <(C, P, etc.)> <(ID number)> 303(d) List  
USGS Basin and Sub-watershed No.: < (USGS HUC12 #) >

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

**FACILITY DESCRIPTION**

All Outfalls – SIC Codes #0273 and #0921

Process wastewater discharges from Concentrated Aquatic Animal Production Facilities utilizing flow-through systems, impoundments, or recirculating systems. This permit also authorizes the land application of waste solids produced as part of normal operation, cleaning processes, or maintenance in these facilities.

This permit authorizes only wastewater discharges under the Missouri Clean Water Law and the National Pollutant Discharge Elimination System; it does not apply to other regulated areas. This permit may be appealed in accordance with §§ 621.250, 640.013, and 644.051.6, RSMo and 10 CSR 20-1.020 and 20-6.020.

February 19, 2019  
Effective Date

Edward B. Galbraith, Director, Division of Environmental Quality

February 18, 2024  
Expiration Date

Chris Wieberg, Director, Water Protection Program

A. APPLICABILITY

1. This Missouri State Operating Permit (permit) authorizes discharges of process wastewater to waters of the State of Missouri from Concentrated Aquatic Animal Production Facilities (CAAPFs) utilizing flow-through systems, impoundments, or recirculating systems. This permit also authorizes the land application of waste solids produced as part of normal operation, cleaning processes, or maintenance in these facilities. These facilities include, but are not limited to, permittees (facilities) with the primary Standard Industrial Classification (SIC) Codes listed below or facilities the Missouri Department of Natural Resources (Department) determines are fundamentally similar to facilities with the below SIC Codes:

<u>SIC CODE</u>	<u>ACTIVITY</u>
0273	Animal Aquaculture
0921	Fish Hatcheries and Preserves

This permit applies only to CAAPFs. A CAAPF is defined as a hatchery, fish farm, or other facility which contains, grows, or holds aquatic animals; that discharges at least thirty (30) days per year, cumulatively, not necessarily consecutively; and meets either of the following operational thresholds:

- (a) Facilities which produce “cold water aquatic animals” in excess of 20,000 pounds per year or which feed at least 5,000 pounds during the month of maximum feeding. Examples of “cold water aquatic animals” include, but are not limited to, trout and salmon.
  - (b) Facilities which produce “warm water animals” in excess of 100,000 pounds per year. Examples of “warm water aquatic animals” include, but are not limited to, catfish, minnows, and sunfish.
2. This permit applies only to the production of fish, crawfish, and amphibians. It does not apply to the production of alligators, turtles, or other aquatic species, unless the Department determines a facility’s processes and pollutants discharged are fundamentally similar to the covered species.
  3. Definitions:
    - (a) Flow-through facilities are those diverting water from a river, stream, or spring to supply a continual flow through a series of tanks or raceway. A raceway is a series of pools or chambers at or below grade and constructed of earth, concrete, plastic, or metal. After passing through the tank or raceway system, the water is discharged back into the river, stream, or spring. This term does not apply to pens.
    - (b) Impoundments include, but are not limited to, ponds, pools, pits, closed cells, tanks, or other structures constructed from earth, concrete, plastic, or metal that are used for production aquaculture or as settling ponds or basins used for the collection of solids.
    - (c) Recirculating systems filter and reuse water from the production of aquatic animals. Typically tanks, biological or mechanical filtration are used to maintain high quality water for production.
  4. This permit does not apply to CAAPFs which use floating, hanging, or anchored new structures with a hydraulic connection to waters of the state, otherwise known as net pen aquaculture.
  5. This permit does not apply to the discharge of any water other than from a CAAPF, including domestic waste. Solids collected as part of normal operation, cleaning processes, or maintenance must be disposed of properly and not discharged to waters of the state. Solids can include, but are not limited to, manure, mortalities, waste feed, and sediment. Proper disposal methods include, but are not limited to, land application, composting, or disposal at a permitted wastewater treatment facility or permitted solid waste facility.
  6. This permit authorizes the discharge of drugs or chemicals used in the regular CAAPF operations which have been approved by the United States Environmental Protection Agency (USEPA) for use in aquatic environments. USEPA approval is demonstrated on the product label by mandated instructions or precautions for use in aquatic environments. Drugs or chemicals must be used according to, or more dilute than, label instructions. In no case shall the discharge of drugs or chemicals result in acute or chronic toxicity in the receiving stream.

Per the Effluent Limitation Guideline (ELG) found at 40 CFR 451, other drugs or chemicals, including those approved by the United States Food and Drug Administration (USFDA) and “Investigational New Animal Drugs” (INAD) require prior approval from the Department before use. The Department may request additional information before approval is granted. Unless an INAD has been previously approved by USFDA for a different species or disease and is used at or below the approved dosage and under similar conditions, the permittee shall submit the following information to the Department’s Regional Office:

- (a) A written report shall be submitted within seven (7) days of the use, which may be by email, agreeing or signing up to participate in an INAD study. The report must include the drug or chemical to be used, the concentration and toxicity information of the drug, the method of use, the dosage, the duration of exposure, the disease or condition to be treated, and method of disposal.

- (b) An oral report shall be submitted no later than seven (7) days after beginning use. The oral report must include the drug or chemical used, the method of application, and the reason for use. This report may be delivered via telephone or in person at the Department's Regional Office.
  - (c) A follow up written report shall be submitted thirty (30) days after beginning use. This report must include the drug or chemical used; reason for treatment; date(s), time(s), and duration of use; the method of application; and the amount added.
7. New facilities that wish to discharge must obtain an antidegradation analysis prior to obtaining this permit. For information on how to obtain an antidegradation analysis, please see this website: <https://dnr.mo.gov/env/wpp/permits/antideg-implementation.htm>. Facilities which have been discharging under previous versions of this permit are not required to obtain an antidegradation analysis unless they are increasing their design flow.
8. This permit does not cover land disturbance activities or construction of earthen basins.
- (a) Land disturbance activities disturbing one or more acres of total area for the entire project or less than one acre for sites that are part of a common promotional plan of development may require a land disturbance permit. Instructions on how to apply for and receive the online land disturbance permit are located at <https://dnr.mo.gov/env/wpp/epermit/help.htm>. Questions regarding permit requirements may be directed to the Department's Land Disturbance phone line at [573-526-2082](tel:573-526-2082) or toll free at [855-789-3889](tel:855-789-3889).
  - (b) Construction of an earthen basin designed to hold, convey, contain, store, or treat process wastewater requires an application for a construction permit. Instructions on how to apply for and receive a construction permit are located at <https://dnr.mo.gov/env/wpp/permits/ww-construction-permitting.htm>. Questions regarding permit requirements may be directed to Department's Water Protection Program phone line at [573-751-1300](tel:573-751-1300), or toll free at [800-361-4827](tel:800-361-4827). Construction of any point source system designed to hold, convey, contain, store, or treat process wastewater shall be designed by a professional engineer licensed in Missouri to comply with regulations and constructed in accordance with those design plans.
9. Discharge to the watersheds of a Metropolitan No-Discharge Stream (10 CSR 20-7.031 Table F) is prohibited except uncontaminated cooling water, non-contaminated stormwater flows, permitted stormwater discharges in compliance with permit conditions, and excess wet-weather bypass discharges not interfering with beneficial uses per 10 CSR 20-7.015(5) and 7.031(7). Existing interim discharges may be allowed until interceptors are available within 2,000 feet or a distance deemed feasible by the Department, or unless construction of outfalls to alternative receiving waters not listed in Table F is deemed feasible by the Department. This permit authorizes no-discharge facilities [as defined in 10 CSR 20-6.015(1)(B)7.] to operate in the watersheds of Metropolitan No-Discharge Streams. Any discharge from a no-discharge facility, excluding non-contaminated stormwater, will be a violation of this permit unless a catastrophic or chronic storm event [as defined in 10 CSR 20-6.015(1)(B)2.-3.] occurs.
10. This permit does not authorize discharges which are located in a way to allow water to be released into sinkholes, caves, fissures, or other openings in the ground which could drain into aquifers directly or indirectly (except losing streams) per 10 CSR 20-7.015(7).
11. This permit does not authorize the discharge of industrial or domestic wastewater into the watersheds above lakes and reservoirs designated as L1 in 10 CSR 20-7.031, which are primarily used as drinking water supplies, per 10 CSR 20-7.015(3)(C).
12. This general permit does not authorize discharges within 100 feet up gradient or upstream of any well or water supply structure, such as an intake, within a water designated for groundwater (GRW) or drinking water supply (DWS) as defined in 10 CSR 20-7.031.
13. For facilities which would discharge directly to Outstanding State Resource Waters:
- (a) Outstanding State Resource Waters are protected against any degradation in quality as defined in 10 CSR 20-7.015(6)(B) and 7.031(3)(C).
  - (b) This permit does not authorize non-stormwater (wastewater) discharges to Outstanding State Resource Waters unless they are in compliance with the limitations in this permit and do not cause degradation in the receiving stream.
  - (c) New facilities that wish to discharge into Outstanding State Resource Waters must obtain an antidegradation analysis, which evaluates no-discharge options and finds them impracticable prior to obtaining this permit. For information on how to obtain an antidegradation analysis, please see this website: <https://dnr.mo.gov/env/wpp/permits/antideg-implementation.htm>. Facilities which have been operating under previous versions of this permit are not required to obtain an antidegradation analysis unless they are increasing their design flow.
  - (d) This permit authorizes no-discharge facilities to operate in Outstanding State Resource Waters. These facilities may discharge stormwater, as it is unregulated; however, all wastewaters must be no-discharge. New facilities which are designed to be no-discharge are not required to obtain an antidegradation analysis.
  - (e) Any discharge from a no-discharge facility, excluding stormwater, will be a violation of this permit unless a catastrophic or chronic storm event [as defined in 10 CSR 20-6.015(1)(B)2.-3.] occurs.

14. For facilities operating within the watershed of Outstanding National Resource Water, which includes the Ozark National Riverways and the National Wild and Scenic Rivers System:
  - (a) This permit authorizes no-discharge facilities [as defined in 10 CSR 20-6.015(1)(B)7.] to operate.
  - (b) If a no-discharge facility desires to become authorized to discharge stormwater, the facility is directed to contact the Department to discuss applicability.
  - (c) Any discharge from a no-discharge facility, including stormwater, will be considered a violation of this permit unless a catastrophic or chronic storm event [as defined in 10 CSR 20-6.015(1)(B)2.-3.] occurs. In the event of a catastrophic or chronic storm event, the no-discharge facility is authorized to release only the amount of stormwater required to prevent damage to the facility or established BMPs.
  - (d) Discharges from sources that existed before June 29, 1974, will be allowed to continue to discharge under this permit.
15. Facilities located within the watershed of an impaired water as designated in the 305(b) Report must be evaluated on a case-by-case basis for inclusion under this permit. Missouri's impaired waters can be found at <https://dnr.mo.gov/env/wpp/waterquality/index.html>. Facilities found to be discharging the listed pollutant(s) of concern for any impaired water may be required to obtain a site-specific permit.
16. The Department may require any facility authorized by a general permit to apply for a site-specific permit [10 CSR 20-6.010(13)(C)]. Cases where a site-specific permit may be required include, but are not limited to, the following:
  - (a) The discharge(s) is a significant contributor of a pollutant(s) which impairs the beneficial uses of the receiving stream;
  - (b) The discharger is not in compliance with the conditions of the general permit;
  - (c) A Total Maximum Daily Load (TMDL) containing requirements applicable to the discharge(s) is approved.
17. If a facility covered under a current general permit desires to apply for a site-specific permit, the facility may do so by contacting the Department for application requirements and procedures.
18. Facilities covered under a current site-specific permit who desire to apply for inclusion under this general permit may contact the Department for application requirements and procedures.

**B. EXEMPTION**

Facilities discharging wastewater directly to a combined sewer system with a Department approved Long Term Control Plan [10 CSR 20-7.015(10)] or to a publicly owned treatment works which has consented to receiving such a discharge are exempt from permit requirements.

C. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

TABLE A Cold Water Aquatic Animal Facilities Greater Than 20,000 lbs. but Less Than 100,000 lbs. Production per Year		FINAL EFFLUENT LIMITATIONS AND MONITORING				
The facility is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective upon issuance and remain in effect until the expiration of the permit. All discharges shall be controlled, limited, and monitored by the facility as specified below:						
EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS***	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	SAMPLING FREQUENCY	SAMPLE TYPE
<b>DISCHARGE TO GAINING STREAMS</b>		<b>OUTFALL:</b>			<b>LIMIT SET<sup>∞</sup>: A1 OR A2<sup>‡</sup></b>	
<b>PHYSICAL</b>						
Flow †	MGD	*		*	once/year	24 hr est.
<b>CONVENTIONAL</b>						
Biochemical Oxygen Demand <sub>5</sub>	mg/L	20		20	once/year	grab
pH**	SU	6.5-9.0		-	once/year	grab
Total Suspended Solids	mg/L	20		15	once/year	grab
<b>NUTRIENTS</b>						
Phosphorus, Total	mg/L	*		*	once/year	grab
Phosphorus, Total-Special Streams <sup>‡</sup>	mg/L	0.5		0.5	once/year	grab
<b>DISCHARGE TO LOSING STREAMS</b>		<b>OUTFALL:</b>			<b>LIMIT SET<sup>∞</sup>: A3 OR A4<sup>‡</sup></b>	
<b>PHYSICAL</b>						
Flow †	MGD	*		*	once/year	24 hr est.
<b>CONVENTIONAL</b>						
Biochemical Oxygen Demand <sub>5</sub>	mg/L		15	10	once/year	grab
pH**	SU	6.5-9.0		--	once/year	grab
Total Suspended Solids	mg/L		20	15	once/year	grab
<b>NUTRIENTS</b>						
Phosphorus, Total	mg/L	*		*	once/year	grab
Phosphorus, Total-Special Streams <sup>‡</sup>	mg/L	0.5		0.5	once/year	grab
MONITORING REPORTS SHALL BE SUBMITTED <u>ANNUALLY</u> VIA THE DEPARTMENT'S eDMR SYSTEM. THE FIRST REPORT IS DUE <u>JANUARY 28, 2020</u> . IT IS A VIOLATION OF THIS PERMIT TO FAIL TO SAMPLE. THE DISCHARGE SHALL NOT CONTAIN FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						

\* Monitoring requirement only.

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

\*\*\* Sampling shall be scheduled to coincide with rearing impoundment or raceway cleaning operations, or harvest activities if cleaning does not occur during the sampling period. Report as no-discharge when a discharge does not occur during the reporting period. If multiple samples are collected and analyzed during the sampling period, the multiple samples are not to be averaged at intervals exceeding one calendar month.

† No impoundment aquaculture facility shall discharge more than three days in any one week for any reason other than harvest, renovation, or excessive precipitation.

‡ Facilities located in hydrologic units 11010001 & 11010002, discharging to watersheds of Lake Taneycomo & Table Rock Lake.

∞ A1 limit set is for standard streams, cold water animals; A2 is for special streams (see ‡ above), cold water animals; A3 is losing streams, cold water animals; A4 is losing special streams, cold water animals.

C. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS, CONTINUED

<b>TABLE B All Facilities Greater Than 100,000 lbs. of Production per Year</b>		<b>FINAL EFFLUENT LIMITATIONS AND MONITORING</b>				
The facility is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective upon issuance and remain in effect until the expiration of the permit. All discharges shall be controlled, limited, and monitored by the facility as specified below:						
EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS***	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	SAMPLING FREQUENCY	SAMPLE TYPE
<b>DISCHARGING TO GAINING STREAMS</b>		<b>OUTFALL:</b>			<b>LIMIT SET<sup>∞∞∞</sup>: B1 OR B2‡</b>	
<b>PHYSICAL</b>						
Flow †	MGD	*		*	once/quarter ◇	24 hr est.
<b>CONVENTIONAL</b>						
Biochemical Oxygen Demand <sub>5</sub>	mg/L	20		20	once/quarter ◇	grab
pH**	SU	6.5-9.0		--	once/quarter ◇	grab
Total Suspended Solids	mg/L	20		15	once/quarter ◇	grab
<b>NUTRIENTS</b>						
Ammonia as N	mg/L	2.0		1.0	once/quarter ◇	grab
Phosphorus, Total	mg/L	*		*	once/quarter ◇	grab
Phosphorus, Total-Special Streams‡	mg/L	0.5		0.5	once/quarter ◇	grab
<b>OTHER</b>						
Chloride Ω	mg/L	376		187	once/quarter ◇	grab
Copper, Total Recoverable Ω	µg/L	20.7		10.3	once/quarter ◇	grab
<b>DISCHARGING TO LOSING STREAMS</b>		<b>OUTFALL:</b>			<b>LIMIT SET<sup>∞∞∞</sup>: B3 OR B4‡</b>	
<b>PHYSICAL</b>						
Flow †	MGD	*		*	once/quarter ◇	24 hr est.
<b>CONVENTIONAL</b>						
Biochemical Oxygen Demand <sub>5</sub>	mg/L		15	10	once/quarter ◇	grab
pH**	SU	6.5-9.0		-	once/quarter ◇	grab
Total Suspended Solids	mg/L		20	15	once/quarter ◇	grab
<b>NUTRIENTS</b>						
Ammonia as N	mg/L	2.0		1.0	once/quarter ◇	grab
Phosphorus, Total	mg/L	*		*	once/quarter ◇	grab
Phosphorus, Total-Special Streams‡	mg/L	0.5		0.5	once/quarter ◇	grab
<b>OTHER</b>						
Chloride Ω	mg/L	376		187	once/quarter ◇	grab
Copper, Total Recoverable Ω	µg/L	20.7		10.3	once/quarter ◇	grab
MONITORING REPORTS SHALL BE SUBMITTED QUARTERLY VIA THE DEPARTMENT'S eDMR SYSTEM. THE FIRST REPORT IS DUE <b>MONTH 28, 20XX</b> . IT IS A VIOLATION OF THIS PERMIT TO FAIL TO SAMPLE. THE DISCHARGE SHALL NOT CONTAIN FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						

See notes on next page

NOTES:

- \* Monitoring requirement only.
- \*\* pH is measured in standard units and is not to be averaged.
- \*\*\* Sampling shall be scheduled to coincide with rearing impoundment or raceway cleaning operations, or harvest activities if cleaning does not occur during the sampling period. Report as no-discharge when a discharge does not occur during the reporting period. If multiple samples are collected and analyzed during a sampling period, the multiple samples are not to be averaged at intervals exceeding one calendar month.
- † No impoundment aquaculture facility shall discharge more than three days in any one week for any reason other than harvest, renovation, or excessive precipitation.
- ‡ Facilities located in hydrologic units 11010001 & 11010002, discharge to watersheds of Lake Taneycomo & Table Rock Lake.
- ∞∞∞ B1 limit set is for standard streams; B2 is for special streams (see ‡ above); B3 is losing streams; B4 is losing special streams.
- Ω If a facility does not add copper or chloride containing additives, they may report the code “AG” for “conditional monitoring not required this period” on eDMRs.

◇ Quarterly sampling

MINIMUM QUARTERLY SAMPLING REQUIREMENTS			
QUARTER	MONTHS	QUARTERLY EFFLUENT PARAMETERS	REPORT IS DUE
First	January, February, March	Sample at least once during any month of the quarter	April 28 <sup>th</sup>
Second	April, May, June	Sample at least once during any month of the quarter	July 28 <sup>th</sup>
Third	July, August, September	Sample at least once during any month of the quarter	October 28 <sup>th</sup>
Fourth	October, November, December	Sample at least once during any month of the quarter	January 28 <sup>th</sup>

D. BEST MANAGEMENT PRACTICES

1. Per the Effluent Limitations Guidelines found in 40 CFR Part 451, Concentrated Aquatic Animal Production Point Source Category, all CAAPFs producing 100,000 pounds or more per year of aquatic animals in a flow-through or recirculating system, the following best management practices shall be implemented:
  - (a) Solids Control. The facility must:
    - 1) Employ efficient feed management and feeding strategies that limit feed input to the minimum amount reasonably necessary to achieve production goals and sustain targeted rates of aquatic animal growth in order to minimize potential discharges of uneaten feed and waste products to waters of the state.
    - 2) In order to minimize the discharge of accumulated solids from settling ponds and basins and production systems, identify and implement procedures for routine cleaning of rearing units and off-line settling basins, and procedures to minimize any discharge of accumulated solids during the inventorying, grading and harvesting of aquatic animals in the production system.
    - 3) Remove and dispose of aquatic animal mortalities properly on a regular basis to prevent discharge to waters of the state, except in cases where the permitting authority authorizes such discharge in order to benefit the aquatic environment.
  - (b) Materials storage. The facility must:
    - 1) Ensure proper storage of drugs, pesticides, and feed in a manner designed to prevent spills that may result in the discharge of drugs, pesticides, or feed to waters of the state.
    - 2) Implement procedures for properly containing, cleaning, and disposing of any spilled material.
  - (c) Structural Maintenance. The facility must:
    - 1) Inspect the production system and the wastewater treatment system on a routine basis in order to identify and promptly repair any damage.
    - 2) Conduct regular maintenance of the production system and wastewater treatment system in order to ensure that they are properly functioning.

- (d) Recordkeeping. For a period of five years, the facility must retain records related to:
- 1) Aquatic animal rearing units, documenting the feed amounts and estimates of the numbers and weight of aquatic animals; which are used in order to calculate representative feed conversion ratios.
  - 2) The frequency of cleaning, detailed inspection records (including date of inspection, who conducted the inspection, findings of the inspection), maintenance performed, and repairs made.
- (e) Training. The facility must:
- 1) In order to ensure the proper clean-up and disposal of spilled material, adequately train all relevant facility personnel in spill prevention and how to respond in the event of a spill.
  - 2) Train staff on the proper operation and cleaning of production and wastewater treatment systems including training in feeding procedures and proper use of equipment.
2. The following Best Management Practices apply to all permitted facilities under this permit:
- (a) Reportable Damage. The facility must:
- 1) Notify the Department when there is a failure in or damage to the structure of an aquatic animal containment system or BMP resulting in an unanticipated discharge of pollutants to waters of the state.
  - 2) The facility must provide an oral report within 24 hours of discovery of any failure or damage that results in a material discharge of pollutants, describing the cause of the failure or damage in the containment system or BMP and identifying the materials that have been released to the environment as a result of this failure.
  - 3) The facility must provide a written report within 7 days of discovery of the failure or damage documenting the cause, the estimated time elapsed until the failure or damage was repaired, an estimate of the material released as a result of the failure or damage, and steps being taken to prevent a reoccurrence.
  - 4) In the event a spill of drugs, pesticides or feed occurs that results in a discharge to waters of the state, the facility must provide an oral report of the spill to the Department within 24 hours of its occurrence and a written report within 7 days. The report shall include the identity and quantity of the material spilled.
- (b) An Operation and Maintenance Plan shall be developed, implemented, and kept onsite. Within 60 days of obtaining this permit, the facility shall certify to the Department that an O&M plan have been developed by submitting the plan via eDMR. The plan should be specific to the facility and shall include, at a minimum:
- 1) A sketch, map, or diagram showing the flow of the water through all production and treatment areas, with outfalls marked;
  - 2) BMPs and procedures for solids control (as described in Part D. Best Management Practices above):
    - i. Identify BMPs, procedures used to capture or collect solids to minimize the discharge of solids, especially during cleaning and harvesting activities, etc.;
    - ii. Describe procedure for removal and disposal of solids from BMPs and treatment devices;
  - 3) A description of feeding strategies limiting the amount of feed to the minimum amount reasonably necessary to achieve production goal and maintain targeted aquatic animal growth rates;
  - 4) Methods used to ensure proper storage and disposal of drugs, feed, and chemicals;
  - 5) A list of all BMPs, treatment devices, production and wastewater systems, and feeding equipment that are visually inspected monthly. A schedule of when visual inspections and routine maintenance are to be conducted shall also be included; and
  - 6) The operation and maintenance plan shall be reviewed at least annually. The plan shall also be reviewed and updated when there is a change in operations or an expansion to the facility.
- (c) The following records shall be maintained on site for a period of five years and shall be made available to the Department upon request:
- 1) The name and amount of drugs and chemicals applied to fish or production waters, except ice, oxygen, and carbon dioxide. This includes pesticides, sodium chloride (salt), vinegar, or any other substance added to the water. In addition, the Department's Regional Office must be notified sixty (60) days prior to application of new or different drugs or chemicals. Additional prior approval must be obtained following the procedure in part A.6. above unless the drugs or chemicals which have been approved by the USEPA for use in aquatic environments.
  - 2) For feed: the product name, chemical additives (including antibiotics), guaranteed analysis, and amounts used.



## E. PERMIT REQUIREMENTS

1. Electronic Discharge Monitoring Report (eDMR) Submission System. Per 40 CFR Part 127 National Pollutant Discharge Elimination System (NPDES) Electronic Reporting Rule, reporting of effluent limits and monitoring shall be submitted by the facility via an electronic system to ensure timely, complete, accurate, and nationally consistent set of data about the NPDES program. All general permit covered facilities under this master general permit shall comply with the Department's requirements for electronic reporting.
  - (a) Discharge Monitoring Reporting Requirements.
    - 1) Registration to participate in the Department's eDMR system is required as part of the application for general permit coverage in order to constitute a complete permit application and may be accessed at [dnr.mo.gov/env/wpp/edmr.htm](http://dnr.mo.gov/env/wpp/edmr.htm).
    - 2) The facility must electronically submit compliance monitoring data via the eDMR system. In regards to Standard Conditions Part I, Section B, #7, the eDMR system is currently the only Department approved reporting method for this permit.
  - (b) Other actions. The following shall be submitted electronically after such a system has been made available by the Department:
    - 1) General Permit Applications/Notices of Intent to discharge (NOIs);
    - 2) Notices of Termination (NOTs);
    - 3) No Exposure Certifications (NOEs); and
    - 4) Low Erosivity Waivers and Other Waivers from Stormwater Controls (LEWs).
  - (c) Electronic Submissions. To access the eDMR system, use the following link in your web browser: <https://edmr.dnr.mo.gov/edmr/E2/Shared/Pages/Main/Login.aspx>. If you experience difficulties with using the eDMR system you may contact [edmr@dnr.mo.gov](mailto:edmr@dnr.mo.gov) or call 573-526-2082 or toll free 855-789-3889 for assistance.
  - (d) Waivers from Electronic Reporting.
    - 1) The facility must electronically submit compliance monitoring data and reports unless a waiver is granted by the Department in compliance with 40 CFR Part 127.
    - 2) The facility may obtain a temporary or permanent electronic reporting waiver by first submitting an eDMR Waiver Request Form (Form 780-2692): <http://dnr.mo.gov/forms/780-2692-f.pdf>, by contacting the appropriate permitting office, or emailing [edmr@dnr.mo.gov](mailto:edmr@dnr.mo.gov). The Department will either approve or deny this electronic reporting waiver request within 120 calendar days of receipt.
    - 3) Only facilities with an approved waiver request may submit monitoring data and reports on paper to the Department for the period the approved electronic reporting waiver is effective.
2. All CAAPFs constructed or expanded after October 1, 2003 must employ BMPs or treatment devices to remove solids from the effluent flow. Examples of appropriate primary treatment devices include, but are not limited to, quiescent zones, full flow sedimentation basins, off line sedimentation basins, and sock filters. Other solids treatment devices will be considered and approved by the Department on a case-by-case basis.
3. BMP and treatment devices intended to remove or collect solids shall be maintained in good repair and routinely cleaned as necessary to protect waters of the state. Devices associated with feeding shall be maintained in good repair to reduce solids generation. Any deficiencies shall be corrected within thirty (30) days from the date discovered. If repairs cannot be made within thirty days, a description as to why repairs could not be completed shall be included with the inspection.
4. Training shall be provided to all staff in the proper operation of production and wastewater treatment facilities, feeding procedures, and the prevention and cleanup of spills. Proof of training shall be kept with the operation and maintenance plan.
5. Feed, fertilizers, and chemicals shall be stored in a manner which prevents contact with precipitation and stormwater.
6. It is a violation of the Missouri Clean Water Law to fail to pay fees associated with this permit (Section 644.055, RSMo). The fee schedule can be found at 10 CSR 20-6.011.
7. Compliance with all requirements in this permit does not supersede nor remove liability for compliance with county and other local ordinances.
8. This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the facility for a permit modification, termination or notice of planned changes or anticipated non-compliance does not stay any permit condition.
9. Outfalls must be:
  - (a) Clearly marked in the field. On classified waters the outfall signs must be clearly visible from land and water perspectives;
  - (b) Above the normal high water mark of the waterbody to which it discharges; and
  - (c) Maintained so a sample of the discharge can be obtained at a point after the final treatment process and before the discharge mixes with receiving waters.

10. The facility shall furnish to the Department, within a reasonable time, any information that the Department requests to determine whether cause exists for modifying, revoking and reissuing or terminating this permit or to determine if the permittee is in non-compliance with this permit. The facility shall also furnish to the Department upon request copies of records required to be kept by this permit.
11. The facility shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility when:
  - (a) The alteration or addition could significantly change the nature or increase the quantity of pollutants. This notification applies to pollutants subject to the effluent limitations of this permit as well as new pollutants different from pollutants listed in this permit; or
  - (b) The alteration or addition results in a significant change in disposal practices and may justify the application of permit conditions different from or absent in the current permit.

#### F. LAND APPLICATION REQUIREMENTS

1. If land application is used to dispose of solids it shall be conducted as a plant nutrient application to ensure appropriate utilization of the nutrients in the solids. Land application of process wastewater and sludge/process solids:
  - (a) Shall not cause surface ponding or result in a discharge of process wastewater from land application fields;
  - (b) Shall not occur during frozen, snow covered, or saturated soil conditions, or when a forecasted precipitation event is likely to produce runoff within 24 hours of land application;
  - (c) Shall occur only during daylight hours;
  - (d) Shall not exceed 0.25 inches/hour; 0.5 inch/day; 1.0 inch/week; and 24 inches/year;
  - (e) Shall not occur on slopes exceeding 20 percent (%). Land application on slopes exceeding 10 percent (%) must be applied at ½ the rate specified in (d);
  - (f) Shall not occur within:
    - 1) 50 feet of the property line or public road;
    - 2) 300 feet up gradient of a public or privately owned drinking water impoundment or intake, or water supply well;
    - 3) 150 feet of an occupied residence, public building, or public use area;
    - 4) 300 feet of a sinkhole, losing stream, or other direct conduit to groundwater; and
    - 5) 100 feet of any perennial or intermittent stream or wetland.
2. For row crop irrigation, a complete ground cover of vegetation shall be maintained on the land application site unless the crop field has erosion control measures or a slope of 4 percent (%) or less.
3. The land application site and system shall be visually inspected at least daily during process wastewater land application to check for runoff and equipment malfunctions. A log of inspections shall be kept and made available to the Department upon request.
4. There shall be no land application of any pollutant in sufficient amounts to cause harm to the soil structure or productivity, or cause stress or toxicity to plant life.

#### G. STORAGE BASIN REQUIREMENTS

1. No-discharge Systems: The minimum and maximum operating water levels for the storage basin shall be clearly marked. Each basin shall be operated so the maximum water elevation does not exceed two feet below the emergency spillway except due to exceedances of the 10-year or 25-year, 24-hour storm events according to National Weather Service data. Process wastewater shall be land applied whenever feasible based on soil and weather conditions and permit requirements. Storage basin(s) shall be lowered to the minimum operating level prior to each winter by November 30.
2. No-discharge storage basins shall have an emergency spillway to protect the structural integrity of 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. It is a violation of this permit to place material in the emergency spillway or otherwise cause it to cease to function properly, as this may result in a catastrophic failure of the storage basin.
3. All wastewater storage basin berms shall be mowed and kept free of any deep rooted vegetation, burrowing animals and dens, or other potential sources of damage to the berms.
4. Any unauthorized discharge from the wastewater storage basins shall be reported to the Department as soon as possible but always within 24 hours of the facility becoming aware of the discharge. Unauthorized discharges should be reported to the appropriate regional office during regular business hours, or to the Department's 24-hour Environmental Emergency Response Hotline at 573-634-2436 outside of regular business hours.

#### H. STANDARD CONDITIONS

In addition to specified conditions stated herein, this permit is subject to the attached Standard Conditions Parts I and Standard Conditions Part III dated August 1, 2014 and March 1, 2015, respectively, and hereby incorporated as though fully set forth herein.

#### I. SPECIAL CONDITIONS

1. 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 CWA section 402(k); however, this permit may be reopened and modified, or alternatively revoked and reissued to comply with any applicable effluent standard or limitation issued or approved under §§ 301(b)(2)(C) and (D), 304(b)(2), and 307(a) (2) of the Clean Water Act, if the effluent standard or limitation so issued or approved contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or controls any pollutant not limited in the permit.
2. Changes in Discharges of Toxic Substances. In addition to the reporting requirements under §122.41(1), all existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Director as soon as they know or have reason to believe:
  - (a) An activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if the discharge will exceed the highest of the following notification levels:
    - 1) One hundred micrograms per liter (100 µg/L);
    - 2) Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile;
    - 3) Five hundred micrograms per liter (500 µg/L) for 2,4-dinitrophenol and for 2-methyl-4, 6-dinitrophenol;
    - 4) One milligram per liter (1 mg/L) for antimony;
    - 5) Five (5) times the maximum concentration value reported for the pollutant in the permit application in accordance with 40 CFR 122.21(g)(7); or
    - 6) The notification level established by the Department in accordance with 40 CFR 122.44(f).
  - (b) An activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if the discharge will exceed the highest of the following “notification levels:”
    - 1) Five hundred micrograms per liter (500 µg/l);
    - 2) One milligram per liter (1 mg/l) for antimony;
    - 3) Ten (10) times the maximum concentration value reported for the pollutant in the permit application in accordance with §122.21(g)(7); or
    - 4) The level established by the Director in accordance with §122.44(f).
3. Reporting of Non-Detects:
  - (a) An analysis conducted by the facility or their contracted laboratory shall be conducted in such a way the precision and accuracy of the analyzed result can be enumerated.
  - (b) The facility shall not report a sample result as “Non-Detect” without also reporting the detection limit of the test. Reporting as “Non-Detect” without also including the detection limit will be considered failure to report, which is a violation of this permit.
  - (c) The facility shall report the “Non-Detect” result using the less than sign and the minimum detection limit (e.g. <10).
  - (d) See Standard Conditions Part I, Section A, #4 regarding proper detection limits used for sample analysis.
  - (e) When calculating monthly averages, one-half of the minimum detection limit (MDL) should be used instead of a zero. Where all data are below the MDL, the “<MDL” shall be reported as indicated in item (C).

#### J. PERMIT RENEWAL

1. Unless terminated, the facility shall submit an application for the renewal of this permit by submitting *Form E-Application for General Permit* <http://dnr.mo.gov/forms/780-0795-f.pdf> no later than thirty (30) days prior to the permit’s expiration date.
2. When a facility submits a timely and complete application in accordance with 10 CSR 20-6.010(5)(B), and (10)(E)1, as well as §644.051.10 RSMo 2015, and if the Department is unable through no fault of the facility to issue a renewal prior to expiration of the previous permit, the terms and conditions of the expired permit are administratively continued and will remain fully effective and enforceable until such time when a permit action is taken. Failure to submit a renewal application for a facility still in operation is a violation of the Missouri Clean Water Law. Failure to apply for renewal of a permit may result in termination of this permit and enforcement action to compel compliance with this condition and the Missouri Clean Water Law.

3. As part of the complete application and as required by the federal NPDES eReporting rule, participation in the Department's Electronic Discharge Monitoring Report Submission System (eDMR) will be required. Facilities already participating in eDMR need not re-apply upon renewal. More information can be found at: <http://dnr.mo.gov/env/wpp/edmr.htm>.

K. PERMIT TRANSFER

1. This permit may not be transferred to a new owner except by submitting an *Application for Transfer of Operating Permit* <http://dnr.mo.gov/forms/780-1517-f.pdf> signed by the seller and buyer of the facility along with the appropriate modification fee. In some cases, revocation and reissuance may be necessary. Standard Condition Part 1, Subsection D.7 applies.
2. Facilities with transfers carried out without prior notice to the Department will be considered to be operating without a permit and may be assessed an administrative penalty.

L. PERMIT TERMINATION

1. Proper closure of any effluent storage structure is required prior to permit termination. See <https://dnr.mo.gov/pubs/pub2568.htm> for more information on closure. Whenever a release or a potential for release from a permitted facility is permanently eliminated, the existing permit may be terminated. The facility must apply for termination, permits do not terminate automatically at expiration.
2. In order to terminate this permit, the facility shall notify the Department's appropriate regional office by completing and submitting *Request for Termination of Operating Permit* <http://dnr.mo.gov/forms/780-1409-f.pdf>. The Department may require inspection of the premises prior to granting termination of a permit.

## Missouri Department of Natural Resources

### Fact Sheet

### MO-G13xxxx

The Federal Water Pollution Control Act [Clean Water Act (CWA)] Section 402 of Public Law 92-500 (as amended) established the National Pollution 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 CWA). After a permit is obtained, a discharge not in compliance with all permit terms and conditions is unlawful. Missouri State Operating Permits (permit) are issued by the Missouri Department of Natural Resources (Department) under an approved program, operated in accordance with federal and state laws (Federal CWA and Missouri Clean Water Law Section 644 as amended). Permits are issued for a period of five (5) years unless otherwise specified.

Per 40 CFR 124.56, 40 CFR 124.8, and 10 CSR 20-6.020(1)(A)2., a Fact Sheet 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 permit. A Fact Sheet is not an enforceable part of an MSOP.

This Fact Sheet is for a:

- Major
- Minor
- Industrial Facility
- Variance
- Master General Permit
- Permit with widespread public interest

### **Part I – Facility Information**

Facility Type: Industrial, Concentrated Aquatic Animal Production Facilities (CAAPFs)  
Facility SIC Code(s): #0273, #0921  
Facility Description: Process wastewater discharges from Concentrated Aquatic Animal Production Facilities utilizing flow-through systems, impoundments, or recirculating systems. This permit also authorizes the land application of waste solids produced as part of normal operation, cleaning processes, or maintenance in these facilities.

#### **CLARIFICATION:**

The previous permit did not fully implement the Effluent Limitation Guidelines applicable to these facilities found in 40 CFR 451. The required ELGs have been included in this permit. The ELG has no numeric limitations, and instead requires certain Best Management Practices (BMPs) to be implemented at the facilities. See “Best Management Practices” section in the permit for a full listing of BMP requirements. The permit did previously implement the ELG requirements for Investigational New Animal Drugs (INADs) and extra label usages. This ELG requirement is continued in this permit, found under the “Applicability” section of the permit.

Changes to this permit include:

- ✓ Updated language throughout the permit to current permit language used by the Department.
- ✓ Clarified and updated setback language. (See “Setbacks” in the fact sheet below for more information.)
- ✓ Fully implemented required ELGs in permit. (See Best Management Practices section on permit page 7 above.)
- ✓ Facility description updated to explicitly authorize land application. It was previously authorized, but only under the special conditions section of the permit.
- ✓ Added Standard Conditions Part III, as land application is authorized.
- ✓ New land application requirements added to the permit (see Land Application Requirements section on permit page 10 above.)
- ✓ TSS daily maximum was increased for all facilities to 20 mg/L. (See Part IV. Effluent Limit Determinations below for more information on this change.)
- ✓ Losing streams daily maximums for BOD<sub>5</sub> and TSS were changed to Weekly Average Maximums to be in line with 10 CSR 20-7.015(4).
- ✓ Added eDMR submission requirements and language.
- ✓ Added storage basin requirements for no-discharge systems. (See Storage Basin Requirements section on page 10 of the permit above.)
- ✓ Updated language related to antidegradation requirements.

## **Part II – Receiving Stream Information**

### **APPLICABLE DESIGNATIONS OF WATERS OF THE STATE:**

Per Missouri Effluent Regulations (10 CSR 20-7.015), the waters of the state are divided into seven (7) categories. Each category lists effluent limitations for specific parameters, which are presented in each outfall's Effluent Limitation Table and further discussed in the Derivation & Discussion of Effluent Limitations section. This permit applies to facilities discharging to the following water body categories:

- Missouri or Mississippi River [10 CSR 20-7.015(2)]
- Lakes or Reservoirs [10 CSR 20-7.015(3)] – excluding L1 reservoirs and lakes.
- Losing Streams [10 CSR 20-7.015(4)]
- Metropolitan No-Discharge Streams [10 CSR 20-7.015(5)] – No-discharge facilities only
- Special Streams [10 CSR 20-7.015(6)] – No-discharge facilities only
- Subsurface Waters [10 CSR 20-7.015(7)]
- All Other Waters [10 CSR 20-7.015(8)]

Missouri Water Quality Standards (10 CSR 20-7.031) defines the Clean Water Commission water quality objectives in terms of "water uses to be maintained and the criteria to protect those uses." The receiving stream and/or 1<sup>st</sup> classified receiving stream's beneficial water uses shall be maintained in accordance with 10 CSR 20-7.031(4). The limits established by this permit are intended to be protective of all streams falling within the categories of receiving water bodies indicated above. A general permit does not take into consideration site-specific conditions.

### **MIXING CONSIDERATIONS:**

This permit applies to receiving streams of varying low flow conditions. Therefore, the effluent limitations must be based on the smallest low flow streams considered, which includes waters without designated uses. As such, no mixing is allowed [10 CSR 20-7.031(5)(A)4.B.(I)(a)]. No Zone of Initial Dilution is allowed [10 CSR 20-7.031(5)(A)4.B.(I)(b)].

### **RECEIVING STREAM MONITORING REQUIREMENTS:**

There are no receiving water monitoring requirements recommended at this time.

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

### **305(B) REPORT, 303(D) LIST, & TOTAL MAXIMUM DAILY LOAD (TMDL):**

Section 305(b) of the Federal CWA requires each state identify waters not meeting Water Quality Standards and for which adequate water pollution controls have not been required. Water Quality Standards protect such beneficial uses of water as whole body contact, maintaining fish and other aquatic life, and providing drinking water for people, livestock, and wildlife. The 303(d) list, a section of the 305(b) report, helps state and federal agencies keep track of waters which are impaired but not addressed by normal water pollution control programs.

A TMDL is a calculation of the maximum amount of a given pollutant a body of water can absorb before its water quality is affected. If a water body is determined to be impaired as listed on the 303(d) list, then a watershed management plan will be developed which shall include the TMDL calculation. For facilities with an existing general permit before a TMDL is written on their receiving stream, the Department will evaluate the permit and may require any facility authorized by this general permit to apply for and obtain a site-specific operating permit. Requests for coverage of a new facility under this general permit will be evaluated on a case-by-case basis for facilities located within the watershed of an impaired water as designated on the 305(b) Report.

- ✓ Conditional: The Department will review all discharges to impaired waters on a case-by-case basis.

### **ANTI-BACKSLIDING:**

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

- ✓ Applicable: Limitations in this operating permit for the reissuance conform to the anti-backsliding provisions of Section 402(o) of the Clean Water Act, and 40 CFR Part 122.44.
- ✓ The Department determined technical mistakes or mistaken interpretations of law were made in issuing the permit under section 402(a)(1)(b).
  - The previous permit placed incorrect limitations on TSS for losing streams. The regulations at 10 CSR 20-7.015(4) require technology limitations of 20 mg/L weekly average, and 15 mg/L monthly average. This permit implements these limits, as the permittees were not consistently meeting the previously placed limits of 15 mg/L daily maximum and 15 mg/L monthly average maximum. Additionally, the daily maximum limits for BOD<sub>5</sub> on losing streams was changed to a weekly average limit. Treatment mechanisms at permitted facilities were not consistently meeting the technology based limits, and the requirements in the regulations are for a weekly average, not a daily maximum.

- TSS limitations for gaining streams were also raised to 20 mg/L daily maximum to be in line with the requirements for losing streams. The previous limitations were not routinely achieved by the permittees, indicating the technology based limitations were not set at an achievable level. As the regulations require 20 mg/L weekly average for more sensitive streams (losing streams), the permit writer uses best professional judgment to determine these limitations will also be protective of gaining stream settings.
- The previous permit special conditions contained a specific set of prohibitions related to general criteria found in 10 CSR 20-7.031(4); however, there was no determination as to whether the discharges have reasonable potential to cause or contribute to excursion of those general water quality criteria in the previous permit. Federal regulations 40 CFR 122.44(d)(1)(iii) requires instances where reasonable potential (RP) to cause or contribute to an exceedance of a water quality standard exists, a numeric limitation must be included in the permit. Rather than conducting the appropriate RP determination, the previous permit simply placed the prohibitions in the permit. These conditions were removed from the permit. Appropriate reasonable potential determinations were conducted for each general criterion listed in 10 CSR 20-7.031(4)(A) through (I) and effluent limitations were placed in the permit for those general criteria where it was determined the discharge had reasonable potential to cause or contribute to excursions of the general criteria. Specific effluent limitations were not included for those general criteria where it was determined the discharges will not cause or contribute to excursions of general criteria. Removal of the prohibitions does not reduce the protections of the permit or allow for impairment of the receiving stream. The permit maintains sufficient effluent limitations, monitoring requirements and best management practices to protect water quality. See General Criteria Considerations below.

#### **ANTIDegradation:**

Antidegradation policies ensure protection of water quality for a particular water body on a pollutant by pollutant basis to ensure Water Quality Standards are maintained to support beneficial uses such as fish and wildlife propagation and recreation on and in the water. This also includes special protection of waters designated as an Outstanding National Resource Water or Outstanding State Resource Water [10 CSR 20-7.031(3)(C)]. Antidegradation policies are adopted to minimize adverse effects on water.

- ✓ Applicable: Antidegradation reviews are performed at the time of construction, and must also be performed if a facility is expanding design flow or desire to switch from no-discharge to a discharging facility. Facilities which have discharged under this permit previously and are not increasing their design flow do not need to obtain an antidegradation review.

#### **EFFLUENT LIMITATION GUIDELINE:**

Effluent Limitation Guidelines, or ELGs, are found at 40 CFR 400-499. These are limitations established by USEPA based on the SIC code and the type of work a facility is conducting. Most ELGs are for process wastewater and some address stormwater. All are technology based limitations which must be met by the applicable facility at all times.

- ✓ Applicable: The industries covered under this permit have an associated Effluent Limit Guideline (ELG) found at 40 CFR 451, which is applicable to the wastewater discharges in this permit and is applied under 40 CFR 125.3(a).

#### **GENERAL CRITERIA CONSIDERATIONS:**

In accordance with 40 CFR 122.44(d)(1), effluent limitations shall be placed into permits for pollutants which have been determined to cause, have the reasonable potential to cause, or to contribute to an excursion above any State water quality standard, including State narrative criteria for water quality. The rule further states 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 protecting the narrative criterion. The previous permit included the narrative criteria as specific prohibitions placed upon the discharge. These prohibitions were included in the permit absent any discussion of the discharge's reasonable potential to cause or contribute to an excursion of the criterion. In order to comply with this regulation, the permit writer has completed a reasonable potential determination on whether the discharge has reasonable potential to cause or contribute to an excursion 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 the rule itself, under 10 CSR 20-7.031(4)). In instances where reasonable potential exists, the permit includes numeric limitations to address the reasonable potential. In instances where reasonable potential does not exist the permit includes monitoring of the discharges potential to impact the receiving stream's narrative criteria. Finally, all of the previous permit narrative criteria prohibitions have been removed from the permit given they are addressed by numeric limits where reasonable potential exists. It should also be noted Section 644.076.1, RSMo as well as Section D – Administrative Requirements of Standard Conditions Part I of this permit state 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 which are 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.

- For all facilities, there is no RP for putrescent bottom deposits preventing full maintenance of beneficial uses because permit writer research on the industry and review of previous facility data did not indicate putrescent wastewater would be discharged from these facilities.

- For all facilities, there is RP for unsightly or harmful bottom deposits preventing full maintenance of beneficial uses because the primary pollutant of concern for this industry is solids. The permit contains limitations for TSS which are protective of this criterion.
- (B) Waters shall be free from oil, scum, and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses.
- For all facilities, there is no RP for oil in sufficient amounts to be unsightly preventing full maintenance of beneficial uses because permit writer research on the industry and review of previous facility data did not indicate oil will be present in sufficient amounts to impair beneficial uses.
  - For all facilities, there is no RP for scum and floating debris in sufficient amounts to be unsightly preventing full maintenance of beneficial uses because permit writer research on the industry and review of previous facility data did not indicate scum or floating debris will be present in sufficient amounts to impair beneficial uses.
- (C) Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses.
- For all facilities, there is RP for unsightly color or turbidity in sufficient amounts preventing full maintenance of beneficial uses because the primary pollutant of concern with this industry is solids. The permit includes limitations on TSS to protect this criterion.
  - For all outfalls, there is no RP for offensive odor in sufficient amounts preventing full maintenance of beneficial uses because permit writer research on the industry and review of previous facility data did not indicate offensive odor will be present in sufficient amounts to impair beneficial uses.
- (D) Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life.
- The permit writer considered specific toxic pollutants found in the industry when writing this permit. Numeric effluent limitations are included for those pollutants which could be discharged in toxic amounts. These effluent limitations are protective of human health, animals, and aquatic life.
- (E) There shall be no significant human health hazard from incidental contact with the water.
- This criterion is very similar to (D) above. See Part IV, Effluent Limits Derivation below.
- (F) There shall be no acute toxicity to livestock or wildlife watering.
- This criterion is very similar to (D) above. See Part IV, Effluent Limits Derivation below.
- (G) Waters shall be free from physical, chemical, or hydrologic changes which would impair the natural biological community.
- For all outfalls, there is no RP for physical changes which would impair the natural biological community because permit writer research on the industry and review of previous facility data did not indicate physical changes which would impair the natural biological community.
  - For all outfalls, there is no RP for hydrologic changes which would impair the natural biological community because permit writer research on the industry and review of previous facility data did not indicate hydrologic changes would impair the natural biological community.
  - It has been recognized any chemical changes are covered by the specific numeric effluent limitations established in the permit.
- (H) Waters shall be free from used tires, car bodies, appliances, demolition debris, used vehicles or equipment and solid waste as defined in Missouri's Solid Waste Law, Section 260.200, RSMo, except as the use of such materials is specifically permitted pursuant to Section 260.200-260.247.
- There are no solid waste disposal activities or any operation which has reasonable potential to cause or contribute to the materials listed above being discharged through any outfall for this industry.

**MAJOR WATER USER:**

Any surface or groundwater user with a water source and the equipment necessary to withdraw or divert 100,000 gallons (or 70 gallons per minute) or more per day combined from all sources from any stream, river, lake, well, spring, or other water source is considered a major water user in Missouri. All major water users are required by law to register water use annually (Missouri Revised Statutes Chapter 256.400 Geology, Water Resources and Geodetic Survey Section). <https://dnr.mo.gov/pubs/pub2337.htm>

**PUBLIC NOTICE OF COVERAGE FOR AN INDIVIDUAL FACILITY:**

Public Notice of reissuance of coverage is not required unless the facility has been found to be in significant noncompliance [10 CSR 20-6.020(1)(C)4.]. The need for an individual public notification process shall be determined and identified in the permit [10 CSR 20-6.020(1)(C)5.].

- ✓ Not Applicable: Public Notice is not required for issuance of coverage under this permit to individual facilities for the first time.



**REASONABLE POTENTIAL ANALYSIS (RPA):**

Federal regulation 40 CFR Part 122.44(d)(1)(i) requires effluent limitations for all pollutants which are or may be discharged at a level which will cause or have the reasonable potential to cause or contribute to an in-stream excursion above narrative or numeric water quality standard. In accordance with 40 CFR Part 122.44(d)(iii) if the permit writer determines any given pollutant has the reasonable potential to cause, or contribute to an in-stream excursion above the water quality standard, the permit must contain effluent limits for the pollutant.

- ✓ Conservative assumption: A traditional statistical Reasonable Potential Analysis has not been conducted for this master general permit; but instead the Department has made a reasonable potential determination based on sources of pollutants related to water quality standards. Activities performed by facilities covered under this master general permit were evaluated as to whether discharges have reasonable potential to cause or contribute to excursions of general criteria listed in 10 CSR 20-7.031(4). A reasonable potential to violate water quality standards is assumed for the pollutants of concern due to the nature of the activities carried out under this permit, resulting in the effluent limits contained in the permit.
- ✓ Permit writers use the Department's permit writer's manual (<https://dnr.mo.gov/env/wpp/permits/manual/permit-manual.htm>), the USEPA's permit writer's manual (<https://www.epa.gov/npdes/npdes-permit-writers-manual>), program policies, and best professional judgment. For each parameter in each permit, the permit writer carefully considers all applicable information regarding technology based effluent limitations, effluent limitation guidelines, and water quality standards. Best professional judgment is based on the experience of the permit writer, cohorts in the Department and resources at the USEPA, research, and maintaining continuity of permits if necessary. For stormwater permits, the permit writer is required per 10 CSR 6.200(6)(B)2 to consider: A. application and other information supplied by the permittee; B. effluent guidelines; C. best professional judgment of the permit writer; D. water quality; and E. BMPs. Part V provides specific decisions related to this permit.
- ✓ The permit writer reviewed industry materials, available DMR data, past inspections, and other available documents and research to evaluate general and narrative water quality reasonable potential for this permit. Per the permit writer's best professional judgment, based on available data and full and accurate disclosure on application materials, this industry demonstrates reasonable potential for excursions from the general or narrative water quality criteria. See Part IV: Effluent Limit Determinations for specific parameter RP.

**SETBACKS:**

Setbacks are common elements of permits and are established to provide a margin of safety in order to protect the receiving water from accidents, spills, unusual events, etc.

This renewal added the following setbacks:

Discharge to the watersheds of Metropolitan No-Discharge Streams, as defined in 10 CSR 20-7.031 Table F, is prohibited. Any discharge from a no-discharge facility, excluding non-contaminated stormwater, will be a violation of this permit. Discharge of uncontaminated stormwater is authorized from these sites, but no process wastewater.

This permit does not authorize discharges to sinkholes, caves, fissures, or other openings in the ground which could drain into aquifers directly or indirectly. This exclusion does not include losing streams. Discharges to the subsurface require additional approvals not able to be granted through the general permit process. Discharges to these locations can be approved through a site-specific permit process.

Per 10 CSR 20-7.015(3)(C), discharges upstream of lakes and reservoirs classified as L1 are not authorized. This is to protect primary drinking water supplies.

This general permit does not authorize discharges within 100 feet upgradient or upstream of any well or water supply intakes in a GRW or DWS designated receiving stream. This is to protect drinking water sources.

Per 10 CSR 20-7.015(6)(B) and 7.031(3)(C) Outstanding National and State Resource Waters are protected against any degradation in water quality, so stricter conditions apply in these watersheds. Facilities located in such a way as to discharge directly to Outstanding State Resource waters are required to operate as No-Discharge Facilities. This protects the receiving stream from degradation. To discharge to these waters, the facility may get an antidegradation review and apply for a site-specific permit, if authorized. General permits do not allow for the full antidegradation review required, therefore they are not authorized to discharge under this permit. Facilities located in the Outstanding National Resource watersheds are required to operate as No-Discharge facilities. These protections are granted by 10 CSR 20-7.015(6)(A).

Should the permittee choose land application as a best management practice, additional setbacks apply, as required by 10 CSR 20-8.020(15).

**SLUDGE – DOMESTIC BIOSOLIDS:**

Biosolids are solid materials resulting from domestic wastewater treatment meeting federal and state criteria for beneficial use (i.e., fertilizer). Sewage sludge is solid, semi-solid, or liquid residue generated during the treatment of domestic sewage in a treatment works including but not limited to, domestic septage; scum or solids removed in primary, secondary, or advanced wastewater treatment process; and material derived from sewage sludge. Sewage sludge does not include ash generated during the firing of sewage sludge in a sewage sludge incinerator or grit and screening generated during preliminary treatment of domestic sewage in a treatment works. Additional information: <http://extension.missouri.edu/main/DisplayCategory.aspx?C=74> (WQ422 through WQ449).

- ✓ This permit does not authorize land application of biosolids. Biosolids must be removed by contract hauler, incinerated, stored in the lagoon, etc.

**SLUDGE – INDUSTRIAL:**

Industrial sludge is solid, semi-solid, or liquid residue generated during the treatment of industrial process wastewater in a treatment works including but not limited to, scum or solids removed in primary, secondary, or advanced wastewater treatment process; scum and solids filtered from water supplies and backwashed; and a material derived from industrial sludge.

- ✓ Applicable: this permit authorizes the land application of industrial sludge in accordance with Standard Conditions III.

**SPILL REPORTING:**

Any emergency involving a hazardous substance must be reported to the Department's 24-hour Environmental Emergency Response hotline at (573) 634-2436 at the earliest practicable moment after discovery. The Department may require the submittal of a written report detailing measures taken to clean up a spill. These reporting requirements apply when the spill results in chemicals or materials leaving the permitted property or reaching waters of the state. This requirement is in addition to the noncompliance reporting requirement found in Standard Conditions Part I. <http://dnr.mo.gov/env/esp/spillbill.htm>.

Underground and above ground storage devices for petroleum products, vegetable oils and animal fats are subject to control under SPCC and are expected to be managed under those provisions. Substances regulated by federal law under the Resource Conservation and Recovery Act (RCRA) or the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) which are transported, stored, or used for maintenance, cleaning, or repair shall be managed according to the provisions of RCRA and CERCLA. These storage devices are not covered under this general permit because to do so would create a double jeopardy for the permitted facility. Permit requirements cover those fueling areas and storage devices which fall below the threshold of SPCC, RCRA and CERCLA regulations.

**VARIANCE:**

Per the Missouri Clean Water Law Section 644.061.4, variances shall be granted for such period of time and under such terms and conditions as shall be specified by the Clean Water 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 Section 644.006 to 644.141 or any standard, rule, or regulation promulgated pursuant to Missouri Clean Water Law Section 644.006 to 644.141.

- ✓ Not Applicable: This permit is not drafted under premises of a petition for variance.

**WASTELOAD ALLOCATIONS (WLA) FOR LIMITATIONS:**

Per 10 CSR 20-2.010(78), the amount of pollutant each discharger is allowed by the Department to release into a given stream after the Department has determined total amount of pollutant which may be discharged into the stream without endangering its water quality.

Water quality based maximum daily and average monthly effluent limitations were calculated using methods and procedures outlined in USEPA's Technical Support Document For Water Quality-based Toxics Control (TSD) (EPA/505/2-90-001).

- ✓ Not Applicable: no mixing is allowed under general permits, so Water Quality Standards are used in place of Wasteload Allocations.

**WATER QUALITY STANDARDS:**

Per 10 CSR 20-7.031(4), General Criteria shall be applicable to all waters of the state at all times, including mixing zones. Additionally, 40 CFR 122.44(d)(1) directs the Department to include in each NPDES permit conditions to achieve water quality established under Section 303 of the CWA, including state narrative criteria for water quality.

**Part IV – Effluent Limitations Determination**

Effluent limitations derived and established for this permit are applied per 10 CSR 20-7.015(9)(A). Any flow through the outfall is considered a discharge and must be sampled and reported as provided below. Future permit action due to facility modification may contain new operating permit terms and conditions which supersede the terms and conditions, including effluent limitations, of this operating permit. Daily maximums and monthly averages are required per 40 CFR 122.45(d)(1) for continuous discharges (not from a POTW).

**EFFLUENT LIMITATIONS FOR TABLE A:**

**Cold Water Aquatic Animal Facilities Greater than 20,000 lbs. but less than 100,000 lbs. production per year**

PARAMETERS	UNIT	DAILY MAX	MONTHLY AVERAGE	PREVIOUS PERMIT LIMITS	MINIMUM SAMPLING FREQUENCY	MINIMUM REPORTING FREQUENCY	SAMPLE TYPE
<b>DISCHARGE TO GAINING STREAMS</b>							
PHYSICAL							
FLOW †	MGD	*	*	SAME	ONCE/YEAR	ONCE/YEAR	24 HR. EST
CONVENTIONAL							
BOD <sub>5</sub>	mg/L	20	20	SAME	ONCE/YEAR	ONCE/YEAR	GRAB
pH **	SU	6.5-9.0	--	SAME	ONCE/YEAR	ONCE/YEAR	GRAB
TOTAL SUSPENDED SOLIDS (TSS)	mg/L	20	15	15/15	ONCE/YEAR	ONCE/YEAR	GRAB
NUTRIENTS							
PHOSPHORUS, TOTAL	mg/L	*	*	SAME	ONCE/YEAR	ONCE/YEAR	GRAB
PHOSPHORUS, TOTAL –SPECIAL	mg/L	0.5	0.5	SAME	ONCE/YEAR	ONCE/YEAR	GRAB
<b>DISCHARGE TO LOSING STREAMS</b>							
PHYSICAL							
FLOW †	MGD	*	*	SAME	ONCE/YEAR	ONCE/YEAR	24 HR. EST
CONVENTIONAL							
BOD <sub>5</sub>	mg/L	15***	10	SAME	ONCE/YEAR	ONCE/YEAR	GRAB
pH	SU	6.5-9.0	--	SAME	ONCE/YEAR	ONCE/YEAR	GRAB
TOTAL SUSPENDED SOLIDS (TSS)	mg/L	20***	15	15/15	ONCE/YEAR	ONCE/YEAR	GRAB
NUTRIENTS							
PHOSPHORUS, TOTAL	mg/L	*	*	SAME	ONCE/YEAR	ONCE/YEAR	GRAB
PHOSPHORUS, TOTAL-SPECIAL	mg/L	0.5	0.5	SAME	ONCE/YEAR	ONCE/YEAR	GRAB

\* Monitoring and reporting requirement only

\*\* Report the minimum and maximum pH values; pH is not to be averaged

\*\*\* Weekly average, not daily maximum

† No impoundment aquaculture facility shall discharge more than three days in any one week for any reason other than harvest, renovation, or excessive precipitation.

‡ Facilities located in hydrologic units 11010001 and 11010002, discharging to watersheds of Lake Taneycomo and Table Rock Lake.

NEW Parameter not established in previous state operating permit

## **DERIVATION AND DISCUSSION OF LIMITATIONS:**

### **PHYSICAL:**

#### **Flow**

In accordance with 40 CFR Part 122.44(i)(1)(ii), the volume of effluent discharged from each outfall is needed to assure compliance with permitted effluent limitations. If the permittee is unable to estimate effluent flow, then it is the responsibility of the permittee to inform the Department, which may require the submittal of an operating permit modification. The facility will report the total flow in millions of gallons per day (MGD).

### **CONVENTIONAL:**

#### **Biochemical Oxygen Demand - 5 Day (BOD<sub>5</sub>)**

BOD<sub>5</sub> measures the quantity of biodegradable organic matter contained in water by evaluating the oxygen consumed by microorganisms. Organic matter is expected to be a pollutant of concern in CAAPF effluent.

Gaining Streams: Daily maximum limit of 20 mg/L with a monthly average limit of 20 mg/L, continued from the previous permit. These effluent limits were assessed by the permit writer and determined to be protective of the possible receiving streams. The DMRs showed 92% compliance with the permitted gaining stream limitations on BOD<sub>5</sub> across all permitted facilities' samples.

Losing Streams: Weekly average limit of 15 mg/L, with a monthly average limit of 10 mg/L. The previous permit required 15 mg/L as a daily maximum. Regulations at 10 CSR 20-7.015(4) require industrial sources in losing streams which treat influents containing significant amounts of organic loading to conform to the limits applied in this permit. The previous requirement of a daily maximum as opposed to a weekly average was incorrectly applied.

#### **pH**

6.5 to 9.0 SU – instantaneous grab sample. Water quality limits [10 CSR 20-7.031(5)(E)] are applicable to this outfall, continued from the previous permit. DMR data showed 100% compliance with these limitations in the previous permit cycle by all facilities for all reported samples.

#### **Total Suspended Solids (TSS)**

There is no numeric water quality standard for TSS; however, sediment discharges can negatively impact aquatic life habitat. TSS is also a valuable indicator parameter. TSS monitoring allows the permittee to identify increases in TSS indicating uncontrolled materials leaving the site. Increased suspended solids in runoff can lead to decreased available oxygen for aquatic life and an increase of surface water temperatures in a receiving stream. Suspended solids can also be carriers of toxins, which can adsorb to the suspended particles; therefore, total suspended solids are a valuable indicator parameter for other pollution.

Gaining Stream: Daily maximum limit of 20 mg/L, with a monthly average limit of 15 mg/L. Previous permit required a daily maximum limit of 15 mg/L with a monthly average limit of 15 mg/L. The permit writer used best professional judgment to increase the limits on gaining stream TSS to match the increased losing stream TSS. The DMRs from the previous permit cycle show 99% compliance with the permitted limits across all facilities' reported samples.

Losing Stream: Weekly average limit of 20 mg/L, with a monthly average limit of 15 mg/L. Previous permit required a daily maximum limit of 15 mg/L with a monthly average limit of 15 mg/L. Regulations at 10 CSR 20-7.015(4) require industrial sources in losing streams which treat influents containing significant amounts of organic loading to conform to the limits applied in this permit. The previous requirement of a daily maximum as opposed to a weekly average was incorrectly applied.

### **NUTRIENTS:**

#### **Phosphorous, Total P (TP)**

Monitoring for phosphorus is continued from the previous permit, as phosphorus is a pollutant of concern in the effluent of CAAPFs.

Facilities located in hydrologic units 11010001 and 11010002, discharging to watersheds of Lake Taneycomo and Table Rock Lake., shall be limited to 0.5 mg/L daily maximum and 0.5 mg/L monthly average, per 10 CSR 20-7.015(3). This is continued from the previous permit.

**EFFLUENT LIMITATIONS FOR TABLE B:  
All Aquatic Animal Facilities Greater than 100,000 lbs. production per year**

PARAMETERS	UNIT	DAILY MAX	MONTHLY AVG	PREVIOUS PERMIT LIMITS	MINIMUM SAMPLING FREQUENCY	MINIMUM REPORTING FREQUENCY	SAMPLE TYPE
<b>DISCHARGE TO GAINING STREAMS</b>							
PHYSICAL							
FLOW †	MGD	*	*	SAME	ONCE/QUARTER	ONCE/QUARTER	24 HR. EST
CONVENTIONAL							
BOD <sub>5</sub>	mg/L	20	20	SAME	ONCE/QUARTER	ONCE/QUARTER	GRAB
pH **	SU	6.5-9.0	--	SAME	ONCE/QUARTER	ONCE/QUARTER	GRAB
TOTAL SUSPENDED SOLIDS (TSS)	mg/L	20	15	15/15	ONCE/QUARTER	ONCE/QUARTER	GRAB
NUTRIENTS							
AMMONIA AS N	mg/L	2.0	1.0	SAME	ONCE/QUARTER	ONCE/QUARTER	GRAB
PHOSPHORUS, TOTAL	mg/L	*	*	SAME	ONCE/QUARTER	ONCE/QUARTER	GRAB
PHOSPHORUS, TOTAL –SPECIAL	mg/L	0.5	0.5	SAME	ONCE/QUARTER	ONCE/QUARTER	GRAB
OTHER							
COPPER, TOTAL RECOVERABLE	µg/L	20.7	10.3	SAME	ONCE/QUARTER	ONCE/QUARTER	GRAB
CHLORIDE	mg/L	376	187	SAME	ONCE/QUARTER	ONCE/QUARTER	GRAB
<b>DISCHARGE TO LOSING STREAMS</b>							
PHYSICAL							
FLOW †	MGD	*	*	SAME	ONCE/QUARTER	ONCE/QUARTER	24 HR. EST
CONVENTIONAL							
BOD <sub>5</sub>	mg/L	15***	10	SAME	ONCE/QUARTER	ONCE/QUARTER	GRAB
pH	SU	6.5-9.0	--	SAME	ONCE/QUARTER	ONCE/QUARTER	GRAB
TOTAL SUSPENDED SOLIDS (TSS)	mg/L	20***	15	15/15	ONCE/QUARTER	ONCE/QUARTER	GRAB
NUTRIENTS							
PHOSPHORUS, TOTAL	mg/L	*	*	SAME	ONCE/QUARTER	ONCE/QUARTER	GRAB
PHOSPHORUS, TOTAL-SPECIAL	mg/L	0.5	0.5	SAME	ONCE/QUARTER	ONCE/QUARTER	GRAB
OTHER							
COPPER, TOTAL RECOVERABLE ∞	µg/L	20.7	10.3	SAME	ONCE/QUARTER	ONCE/QUARTER	GRAB
CHLORIDE ∞	mg/L	376	187	SAME	ONCE/QUARTER	ONCE/QUARTER	GRAB

\* Monitoring and reporting requirement only

\*\* Report the minimum and maximum pH values; pH is not to be averaged

\*\*\* Weekly average, not daily maximum

† No impoundment aquaculture facility shall discharge more than three days in any one week for any reason other than harvest, renovation, or excessive precipitation.

‡ Facilities located in hydrologic units 11010001 and 11010002, discharging to watersheds of Lake Taneycomo and Table Rock Lake.

∞ If a facility does not add copper or chloride containing additives, they may report “0” on eDMR for these parameters.

NEW Parameter not established in previous state operating permit

## **DERIVATION AND DISCUSSION OF LIMITATIONS:**

### **PHYSICAL:**

#### **Flow**

In accordance with 40 CFR Part 122.44(i)(1)(ii), the volume of effluent discharged from each outfall is needed to assure compliance with permitted effluent limitations. If the permittee is unable to estimate effluent flow, then it is the responsibility of the permittee to inform the Department, which may require the submittal of an operating permit modification. The facility will report the total flow in millions of gallons per day (MGD).

### **CONVENTIONAL:**

#### **Biochemical Oxygen Demand - 5 Day (BOD<sub>5</sub>)**

BOD<sub>5</sub> measures the quantity of biodegradable organic matter contained in water by evaluating the oxygen consumed by microorganisms. Organic matter is expected to be a pollutant of concern in CAAPF effluent.

Gaining Streams: Daily maximum limit of 20 mg/L with a monthly average limit of 20 mg/L, continued from the previous permit. These effluent limits were assessed by the permit writer and determined to be protective of the possible receiving streams. The DMRs showed 92% compliance with the permitted gaining stream limitations on BOD<sub>5</sub> across all permitted facilities' samples.

Losing Streams: Weekly average limit of 15 mg/L, with a monthly average limit of 10 mg/L. The previous permit required 15 mg/L as a daily maximum. Regulations at 10 CSR 20-7.015(4) require industrial sources in losing streams which treat influents containing significant amounts of organic loading to conform to the limits applied in this permit. The previous requirement of a daily maximum as opposed to a weekly average was incorrectly applied.

#### **pH**

6.5 to 9.0 SU – instantaneous grab sample. Water quality limits [10 CSR 20-7.031(5)(E)] are applicable to this outfall, continued from the previous permit. DMR data showed 100% compliance with these limitations in the previous permit cycle by all facilities for all reported samples.

#### **Total Suspended Solids (TSS)**

There is no numeric water quality standard for TSS; however, sediment discharges can negatively impact aquatic life habitat. TSS is also a valuable indicator parameter. TSS monitoring allows the permittee to identify increases in TSS indicating uncontrolled materials leaving the site. Increased suspended solids in runoff can lead to decreased available oxygen for aquatic life and an increase of surface water temperatures in a receiving stream. Suspended solids can also be carriers of toxins, which can adsorb to the suspended particles; therefore, total suspended solids are a valuable indicator parameter for other pollution.

Gaining Stream: Daily maximum limit of 20 mg/L, with a monthly average limit of 15 mg/L. Previous permit required a daily maximum limit of 15 mg/L with a monthly average limit of 15 mg/L. The permit writer used best professional judgment to increase the limits on gaining stream TSS to match the increased losing stream TSS. The DMRs from the previous permit cycle show 99% compliance with the permitted limits across all facilities' reported samples.

Losing Stream: Weekly average limit of 20 mg/L, with a monthly average limit of 15 mg/L. Previous permit required a daily maximum limit of 15 mg/L with a monthly average limit of 15 mg/L. Regulations at 10 CSR 20-7.015(4) require industrial sources in losing streams which treat influents containing significant amounts of organic loading to conform to the limits applied in this permit. The previous requirement of a daily maximum as opposed to a weekly average was incorrectly applied.

### **NUTRIENTS:**

#### **Ammonia as N**

Daily maximum limits of 2.0 mg/L, with a monthly average limit of 1.0 mg/L, continued from the previous permit. These limits are more stringent than the water quality standards in the most sensitive streams; however, all facilities are currently meeting these limits consistently, with only one exceedance noted in the entire previous permit cycle. These limits are continued in this permit, as the technologies employed by the permitted sites can achieve them. In most current permits, ammonia is split into two seasons, summer and winter; however, the limits assigned in this permit are more stringent than both seasons, and therefore will be continued as a year-round requirement. Ammonia is a pollutant of concern associated with sites that treat influent containing large amounts of organics.

### **Phosphorous, Total P (TP)**

Monitoring for phosphorus is continued from the previous permit, as phosphorus is a pollutant of concern in the effluent of CAAPFs.

Special Streams: Facilities located in hydrologic units 11010001 and 11010002, discharging to watersheds of Lake Taneycomo and Table Rock Lake, shall be limited to 0.5 mg/L daily maximum and 0.5 mg/L monthly average, per 10 CSR 20-7.015(3). This is continued from the previous permit.

### **OTHER:**

#### **Copper, Total Recoverable**

Daily maximum limit of 20.7 µg/L with a monthly average limit of 10.3 µg/L, continued from the previous permit. The limits in the previous permit were calculated using the default hardness of 162 mg/L. The permit writer determined the lowest 50<sup>th</sup> percentile hardness of the ecoregions in Missouri is 130 mg/L for the Mississippi Alluvial Plain Ecoregion; however, after review, it was determined that currently all facilities operate in ecoregions with 50<sup>th</sup> percentile hardness of 170 mg/L or higher, meaning the current limits are protective of the receiving streams. At renewal, the permit writer will reassess the operating facilities to determine if a lower hardness should be used when calculating these limits. DMR records show all facilities but one are in compliance with copper limitations in this permit. Copper is a pollutant of concern at these sites as they add cupric chloride to the feed of animals. Not all facilities add copper or chloride containing additives. If no additives are added, the facility may report "0" for this parameter.

#### **Chloride**

Daily maximum limit of 376 mg/L with a monthly average limit of 187 mg/L continued from the previous permit. Limits are retained to be protective of the receiving stream water quality. DMRs show 100% compliance with this parameter from all facilities for all reported values. Chloride is a pollutant of concern at these sites as they add cupric chloride to the feed of animals. Not all facilities add copper or chloride containing additives. If no additives are added, the facility may report "0" for these parameters.

## **Part V – Sampling and Reporting Requirements**

### **SAMPLING FREQUENCY:**

Sampling frequency is established in accordance with Department policy. Effluent limitations are expressed in a daily maximum, weekly average, and/or a monthly average. Quarterly or yearly monitoring is required depending on the parameter. Results from one sample may be submitted as both the daily maximum/weekly average and the monthly average. If the facility collects multiple samples during any month, the permit requires the facility to submit a monthly average of all samples taken that month. If no discharges occur during a sampling period, report as "no discharge."

### **SAMPLING TYPE JUSTIFICATION:**

Sampling type was continued from the previous permit. The sampling types are representative of the discharges, and are protective of water quality. Discharges with altering effluent should have composite sampling; discharges with uniform effluent can have grab samples. Grab samples are usually appropriate for stormwater. Parameters which must have grab sampling are: pH, ammonia, *E. coli*, total residual chlorine, free available chlorine, hexavalent chromium, dissolved oxygen, total phosphorus, volatile organic compounds, and others.

### **SUFFICIENTLY SENSITIVE ANALYTICAL METHODS:**

Please review Standard Conditions Part 1, section A, number 4. The analytical and sampling methods used shall conform to the reference methods listed in 10 CSR 20-7.015 and/or 40 CFR 136 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 the selected methods are able to quantify the presence of pollutants in a given discharge at concentrations low enough to determine compliance with Water Quality Standards in 10 CSR 20-7.031 or effluent limitations unless provisions in the permit allow for other alternatives. A method is "sufficiently sensitive" when 1) the method quantifies the pollutant below the level of the applicable water quality criterion; 2) the method minimum level is above the applicable water quality criterion, but the amount of pollutant in a facility's discharge is high enough the method detects and quantifies the level of pollutant in the discharge; or 3) the method has the lowest minimum level of the analytical methods approved under 10 CSR 20-7.015 and/or 40 CFR 136. These methods are also required for parameters listed as monitoring only, as the data collected may be used to determine if numeric limitations need to be established. A permittee is responsible for working with their contractors to ensure the analysis performed is sufficiently sensitive. 40 CFR 136 lists the approved methods accepted by the Department. Tables A1-B3 at 10 CSR 20-7.031 shows water quality standards.

## **Part VI – Administrative Requirements**

Based on preliminary staff review and 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 permit. The proposed determinations are tentative pending public comment.

### **PUBLIC MEETING:**

A public meeting is not required for general permits with fewer than 50 General Permit Covered Facilities (GPCFs). MOG13 covers 11 GPCFs.

### **PUBLIC NOTICE:**

The Department shall give public notice when 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 or because of 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 facility must be notified of the denial in writing.

The Department must give public notice of a pending permit or of a new or reissued Missouri State Operating Permit. The public comment period is a length of time not less than thirty (30) days following the date of the public notice, during which interested persons may submit written comments about the proposed permit.

For persons wanting to submit comments regarding this proposed permit, please refer to the Public Notice page located at the front of this draft permit. The Public Notice page gives direction on how and where to submit appropriate comments.

- ✓ The Public Notice period for this permit was from 01/11/2019 to 02/11/2019. No comments were received.

**DATE OF FACT SHEET:** 12/05/2018

### **COMPLETED BY:**

**AMBERLY SCHULZ**  
**ENVIRONMENTAL SPECIALIST**  
**MISSOURI DEPARTMENT OF NATURAL RESOURCES**  
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