

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.: MOG760000

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 > < (U, C, P, L1, L2, L3) >  
First Classified Stream and ID: < 1<sup>st</sup> classified stream > < (U, 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 5999, 7000, 7010, 7030, 7032, 7996, 7997, 7999

Discharge of filter backwash and pool drainage from swimming pools and water features.

This permit authorizes only process 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 RSMo § 621.250, 640.013, and 644.051.6; 10 CSR 20-1.020 and 20-6.020.

August 1, 2019  
Effective Date

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

July 31, 2024  
Expiration Date

Chris Wieberg  
Chris Wieberg, Director, Water Protection Program

APPLICABILITY

1. This Missouri State Operating Permit (permit) authorizes the discharge of wastewater to waters of the State of Missouri from pools or water features, including but not limited to, facilities with the primary Standard Industrial Classification (SIC) Codes or facilities the Missouri Department of Natural Resources (Department) determines are fundamentally similar to facilities under the SIC Codes listed below.

<u>SIC Code</u>	<u>Activity</u>
5999	Miscellaneous Retail
7000	Hotels and Other Lodging Places
7010	Hotels, Motels, and Tourist Courts
7030	Camps and Trailing Parks
7032	Sporting and Recreational Camps
7996	Amusement Parks
7997	Membership Sports and Recreation Clubs
7999	Amusement and Recreation Services, Not Elsewhere Classified

This includes swimming pools, hottubs, wading pools, and water features (which includes splash pads, manmade fountains, pools, ponds, cascades, waterfalls, and decorative streams) herein referred to as “pools or water features.” This includes those operated by municipalities, communities, subdivisions, apartment complexes, condominiums, clubs, camps, schools, institutions, parks, mobile home parks, hotels, recreational areas, retail, or similar public facilities. The discharge to waters of the state of Missouri may be filter backwash water and water drained or drawn down.

2. This permit does not authorize discharge from facilities using sanitizing chemicals other than chlorine or bromine.
3. Discharges from “Saltwater” pools, which produce chlorine through generation, are authorized by this permit.
4. Recirculating or flow-through fountains and splash pads (also known as spray grounds, spray parks, spray pools, or spray pads) that use chlorine or bromine as a sanitizer or utilize public drinking water sources which contain chlorine or chloramines are included in this permit if they discharge to waters of the state or storm-sewers which discharge to waters of the state. This includes the drainage of the holding tanks or holding structures.
5. For the purposes of this permit, cyanuric acid, algaecides, clarifiers, water balancers used as treatment to adjust the pH shall be referred to as “pool additives.” If used, they shall be used in accordance with manufacturer’s instructions. Approximate quantities added shall be reported on the annual report.
6. Discharge to the watersheds of a Metropolitan No-Discharge Stream (10 CSR 20-7.031 Table F) is prohibited under this permit per 10 CSR 20-7.015(5) and 7.031(7). Facilities seeking renewal under this permit and currently discharge to the watershed of a Metropolitan No-Discharge Stream shall comply with the Schedule of Compliance found in Table E of this permit.
7. This permit does not authorize discharges which allow water to be released into sinkholes, caves, fissures, or other openings in the ground that could drain into aquifers directly or indirectly (except losing streams) per 10 CSR 20-7.015(7).
8. This permit does not authorize the discharge of industrial or domestic wastewater into the watersheds of lakes and reservoirs designated as L1 in 10 CSR 20-7.031, per 10 CSR 20-7.015(3)(C).
9. Discharges to losing streams from industrial sources which treat influents containing significant amounts of organic loading shall apply for a site-specific permit to comply with the limitations found in 10 CSR 20-7.015(4).
10. 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 wastewater discharge in Outstanding State Resource Waters, but does authorize no-discharge facilities [as defined in 10 CSR 20-6.015(1)(B)7.] to operate.
11. For facilities operating within the watershed of Outstanding National Resource Waters, which include the Ozark National Riverways and the National Wild and Scenic Rivers System
  - (a) This permit authorizes only no-discharge facilities [as defined in 10 CSR 20-6.015(1)(B)7.] to operate.
12. 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.

13. Facilities shall take precautions to ensure activities do not cause or contribute to an alteration of the stream channel, especially during high volume discharges. The facility shall ensure high volume discharges do not cause stream alteration through scouring or other mechanisms. Stream channel alterations require review by the U.S. Army Corps of Engineers under Section 404 of the federal Clean Water Act (CWA).
14. 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.
15. 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.
16. Facilities covered under a site-specific permit who desire to apply for inclusion under this general permit may contact the Department for application requirements and procedures.

#### EXEMPTIONS AND EXCLUSIONS

1. Discharges from pools or water features at single-family residences are exempted from permit requirements.
2. Facilities discharging directly to a combined sewer system (as defined in 40 CFR 122.26 and 40 CFR 35.2005) or to a publicly owned treatment works which has consented to receive all discharges are exempt from this permit.
3. Flow-through fountains and water features (also known as single pass) using a potable water supply, without added sanitizer or pool additives, or which do not discharge to waters of the state are exempt from this permit. The Department may exempt these based on engineering plans, photographs, and/or site visits.
4. Recirculating fountains, not designed for human or animal contact, which discharge 11,000 gallons or less a year, without added sanitizer or where the sanitizers have been allowed to dissipate, and no pool additives were added, are exempt from this permit. The Department may exempt these based on engineering plans, photographs, and/or site visits.
5. Unlined natural or artificial lakes, natural pools, farm ponds, siltation basins at construction sites, and stormwater detention basins are not covered under this permit.
6. Beneficial reuse of the pool or water feature discharge wastewater is exempt, provided that beneficial use and/or reclamation can be demonstrated and provided that pollution, a public nuisance or a health hazard will not be created. The reuse must comply with Solid Waste regulations 10 CSR 80-2.020(9) for beneficial use of solid waste.

FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS – ALL OUTFALLS

<b>TABLE A</b>	<b>FILTER BACKWASH (Note 3)</b>					
The facility is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. These effluent limitations shall be effective at issuance of the Master General Permit. Such 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>OUTFALL: 001 LIMIT SET: FB</b>						
Chlorine/Bromine, Total Residual (Note 1)	mg/L	0.13ML		0.13ML	once/month***	grab
Flow (Amount released) (Note 2)	gallons	*		*	once/month***	estimate
pH **	SU	6.5 to 9.0		--	once/month***	grab
Settleable Solids	ml/L/hr	1.5		1.0	once/month***	grab
		DAILY MINIMUM	WEEKLY AVERAGE MINIMUM	MONTHLY AVERAGE MINIMUM	SAMPLING-FREQUENCY	SAMPLE TYPE
Dissolved Oxygen	mg/L	5.0		5.0	once/month***	grab
MONITORING REPORTS SHALL BE SUBMITTED <u>MONTHLY</u> VIA THE DEPARTMENT'S eDMR SYSTEM. THE FIRST REPORT IS DUE <u>MONTH 28, 20xx</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.						

<b>TABLE B</b>	<b>DISCHARGE OR DRAWDOWN (Note 4)</b>					
The facility is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. These effluent limitations shall be effective at issuance of the Master General Permit. For new facilities, these final effluent limitations shall be effective at issuance of the Master General Permit. Such 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>OUTFALL: 002 LIMIT SET: PD</b>						
Chlorine/Bromine, Total Residual (Note 1)	mg/L	0.13ML		0.13ML	once/discharge***	grab
Flow (Amount released) (Note 2)	gallons	*		*	once/discharge***	estimate
pH **	SU	6.5 to 9.0		6.5 to 9.0	once/discharge***	grab
Settleable Solids	mL/L	1.5		1.0	once/discharge***	grab
Chloride †	mg/L	*		*	once/discharge***	grab
Annual Report		--		--	Annually	Report
		DAILY MINIMUM	WEEKLY AVERAGE MINIMUM	MONTHLY AVERAGE MINIMUM	SAMPLING FREQUENCY	SAMPLE TYPE
Dissolved Oxygen	mg/L	5.0		5.0	once/discharge***	grab
MONITORING REPORTS SHALL BE SUBMITTED <u>ANNUALLY</u> VIA THE DEPARTMENT'S eDMR SYSTEM. THE FIRST REPORT IS DUE <u>OCTOBER 28, 20xx</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.						

<b>Table C</b>		<b>LAND APPLICATION OPERATIONAL MONITORING AND REPORTING REQUIREMENTS (Note 5)</b>				
The facility is authorized to conduct land application of wastewater as specified in the application for this permit. The final monitoring and limitations shall become effective upon issuance and remain in effect until expiration of the permit. The land application of wastewater shall be controlled, limited and monitored by the permittee as specified below:						
PARAMETER(S)	UNITS	FINAL LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
<b>PERMITTED FEATURE: 003 LIMIT SET: LA</b>						
Irrigation Period	hours/day	*		*	daily††	total
Volume Irrigated	gallons	*		*	daily††	total
Application Area	acres	*		*	daily††	total
Application Rate	inches/day	*		*	daily††	total
MONITORING REPORTS SHALL BE SUBMITTED <u>MONTHLY</u> . THE FIRST REPORT IS DUE <u>MONTH 28, 20XX</u> .						

<b>Table D</b>		<b>STORAGE BASIN MONITORING AND REPORTING REQUIREMENTS</b>				
The facility is authorized to conduct land application of wastewater as specified in the application for this permit. The final limitations shall become effective upon issuance and remain in effect until expiration of the permit. The land application of wastewater shall be controlled and monitored by the permittee as specified below:						
PARAMETER(S)	UNITS	FINAL LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY TOTAL	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
<b>PERMITTED FEATURE: 004 LIMIT SET: SB</b>						
Precipitation	inches	*		*	daily	total
Storage Basin Freeboard (Note 6)	feet	*		*	monthly	measured
MONITORING REPORTS SHALL BE SUBMITTED <u>MONTHLY</u> ; THE FIRST REPORT IS DUE <u>MONTH 28, 20XX</u> .						

<b>Table E</b>		<b>SCHEDULE OF COMPLIANCE REQUIREMENTS-METROPOLITAN NO-DISCHARGE STREAMS</b>	
In accordance with 10 CSR 20-7.031, the requirement to cease discharging to Metropolitan No-Discharge Streams, as defined in 10 CSR 20-7.031 Table F, must be achieved as soon as possible but no later than August 1, 2024. The interim discharge allowance is effective beginning August 1, 2019, and remains in effect through July 31, 2024, or as soon as possible. Interim reports are required as specified below:			
PARAMETER(S)	REPORTING REQUIREMENTS		
	REQUIREMENTS	SUBMIT REPORT	
<b>PERMITTED FEATURE: 005 LIMIT SET: SC</b>			
Annual Schedule of Compliance Report	See Note 8		Annually
REPORTS SHALL BE SUBMITTED <u>ANNUALLY</u> ; THE FIRST REPORT IS DUE <u>AUGUST 28, 2020</u> .			

- \* Monitoring requirement only.
- \*\* pH is measured in standard units and is not to be averaged.
- \*\*\* **Samples are to be taken prior to any discharge.** Retain and report all sample results taken prior to discharge, even if multiple samples are taken. Samples may be obtained more often than once per year; however, all results are reported once annually. If the pool is drained multiple times a year, or multiple samples are obtained, submit additional sample records as an attachment through the eDMR system. 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. Sheet flow from a water feature shall be sampled as discharge if there is no outfall structure.
- † Monitoring requirement for “Saltwater” pools or other facilities with chlorine generated through the addition of salt. For traditional (non-saltwater) pools; in eDMR report as AG for Conditional Monitoring Not Required
- †† Daily measurements should be recorded. When in eDMR, only one daily measurement will be reported directly; additional daily results shall be uploaded as an attachment with the monitoring reports.

Note 1 - This permit contains a Total Residual Chlorine (TRC)/Bromine limit.

- (a) The limitations for chlorine are determined based on use designation. The Minimum Quantification Level (ML) is 0.13 mg/L for both use designations.

**For warm water habitats (WWH) and cool water habitats (CLH):**

Daily maximum limit: 0.017 mg/L, Monthly average limit: 0.008 mg/L

**For cold water habitats (CDH):**

Daily maximum limit: 0.003 mg/L, Monthly average limit: 0.002 mg/L.

- (b) These effluent limitations are below the minimum quantification level (ML) of the most common and practical U.S. Environmental Protection Agency approved CLTRC methods. The Department has determined the current acceptable ML for total residual chlorine to be 0.13 mg/L when using the DPD Colorimetric Method #4500 – CL G from Standard Methods for the Examination of Waters and Wastewater. The facility will conduct analyses in accordance with this method, or equivalent, and report actual analytical values. Measured values greater than or equal to the minimum quantification level of 0.13 mg/L will be considered violations of the permit and values less than the minimum quantification level of 0.13 mg/L will be considered to be in compliance with the permit limitation. The minimum quantification level does not authorize the discharge of chlorine in excess of the effluent limits stated in the permit.
- (c) Do not chemically de-chlorinate if it is not needed to meet the limits in the permit.

Note 2 - Estimate the volume as the total gallons of water released. The release rate shall be controlled to avoid high volumes of water being discharged into streams which have the potential to cause stream channel erosion, downstream flooding, or property damage. Where possible, release pool drainage to overland flow, rocks, basins, or similar BMP to increase infiltration, reduce energy, and increase oxygen, thereby reducing sanitizer concentrations.

Note 3 – If discharging the filter backwash to a sanitary sewer, but not the pool discharge, sampling of the filter backwash is not required for Table A and the facilities shall report “no discharge” or Permissible Value “C” on the Electronic Discharge Monitoring Report for the filter backwash portion.

Note 4 - Measure the chlorine or bromine level in the pool or water feature prior to discharging the water anytime there is drainage, including end of year drawdown, beginning of season cleaning, or daily flow through discharge. There shall be less than the minimum quantification level of 0.13 mg/L of the sanitizer before discharge and pH within the range of 6.5-9.0.

Note 5 - This table only applies to no-discharge land application facilities.

Note 6 - Storage basin freeboard shall be reported as storage basin water level in feet below the overflow level.

Note 7 - Facilities shall report required parameters when land application occurs during the reporting period. Daily reporting is required only for days when land application occurs. If irrigation does not occur during the reporting period, report “no discharge”.

Note 8 - Facilities seeking renewal under this permit that currently discharge to the watershed of a Metropolitan No-Discharge Stream shall comply with the following Schedule of Compliance:

- a) The facility shall conduct an evaluation of the discharges to determine how to connect to sanitary sewer, operate as a no discharge facility, or other alternative methods within five (5) years of this permit issuance. The evaluation shall include, but is not limited to; discussions with the local sanitary sewer authority for connection to the sewer system, engineering evaluation of connecting to the sanitary sewer, contracting for pump and haul of the swimming pool contents. Documents related to this evaluation shall remain with permit records and made available to the Department upon request.
- b) The facility shall submit annual progress reports by August 28<sup>th</sup> of each year for the previous August 1<sup>st</sup> through July 31<sup>st</sup> period, listing the following information:
- i. Actions taken to ensure compliance with discontinuing discharge to the watershed of a Metropolitan No-Discharge Stream.
  - ii. Estimated schedule for corrective actions to be complete.
- c) Report shall be submitted via the eDMR system as an attachment. If the report is attached “0” will be reported for the annual reporting period. If no report is attached, a “1” shall be reported. Reporting a “0” (i.e., stating the report is attached) and failing to attach the annual progress report is a violation of this permit.
- d) The facility shall cease discharging to the watershed of a Metropolitan No-Discharge Stream by August 1, 2024.

PERMIT REQUIREMENTS

1. An annual report is required by the terms of this permit. This report will contain a list of all non-chlorine or non-bromine compounds and the estimated quantities added to the pool or water feature, including all pool additives, including salt. This report shall be submitted with the effluent data in Table B by October 28th of the reporting period. For the purposes of this permit the year is considered October 1<sup>st</sup>-September 30<sup>th</sup>.
2. Swimming pool and water feature discharge water shall not contain any detergents, wastes, or algaecides, or any other pool additives including salts from pools commonly referred to as "saltwater pools" in excess of applicable water quality standards, including but not limited to chlorine, bromine, hydrogen peroxide based products, copper, silver, algaecides, fungicides, soda ash, cyanuric acid, pH adjusters, or muriatic acid.
3. Dewatering and velocity dissipation devices shall be used when necessary to prevent and minimize erosion, streams scouring, flooding, increases in turbidity or any other potential damage to the receiving waters and its riparian zone. Preventative measures may include use of a diffuser, riprap, a splash barrier, and flow rate control devices.
4. Before the facility can discharge any pool or water feature, the wastewater must sit for a minimum of seven (7) days. During these seven days, there shall be no addition of chlorine, bromine, treated potable water, pool additives, or in the case of saltwater pool, there shall be no use of the chlorine generator. Flow through facilities shall ensure limits are being met at the time of discharge, if there is no ability hold the discharge.

The water shall be sampled prior to discharge. There shall be less than the minimum quantification level of 0.13 mg/L of the sanitizer before discharge. A longer holding period is necessary if chlorine/bromine levels continue to remain at detectable levels at the end of seven (7) days. The drainage of the pool, water feature, or recirculating tank is the wastewater discharge that shall be sampled and reported as pool drainage under Table B.

If drainage is required more than once annually, as in for pool cleaning purposes, these discharges must be sampled as well. The additional sample records shall be added as an attachment through the eDMR system during the submission of the annual report for Table B. Start-of-the-year pool cleaning waste may require adjustment to the pH if the muriatic acid or cleaning products have changed the pH out of the required range of 6.5-9.0 if the cleaning waste is to be discharged. These products must be used according to manufacturer's instructions and shall not be discharged in excess of applicable water quality standards.

5. Filter backwash shall not be discharged to waters of the state, ditch or storm sewer without treatment. If a sanitary sewer connection is not available, a best management feature such as a settling basin or holding tank shall be used to remove the floatables and solids as well as ensure chlorine or bromine levels are in the acceptable range. The solids shall be disposed of properly as solid waste and not discharged to waters of the state.

Treatment requirements vary for each type of filter backwash. Sand filter backwash discharges shall have at least the first five (5) minutes of the backwash cycle routed to a sanitary sewer system or best management feature that doesn't discharge, such as a holding tank. Diatomaceous earth filters are required to have the entire filter cleaning volume routed to a sanitary sewer system or receive adequate settling treatment ensuring there is no discharge of the solids to waters of the state that exceed the limitations of this permit.

After the chlorine or bromine levels have been reduced to the allowable range, and any floatables and/or solids have been removed, the filter backwash water may be discharged, and sampled results from this shall be reported under Table A.

6. If effluent limits for chlorine cannot be achieved through Best Management Practices, a dechlorinating device may be installed with no additional construction permit.
7. Facility must be able to show in the field or on a map the location of the outfall(s) for pool drainage and filter backwash drainage.
8. Facility shall ensure the discharge through the outfall is managed so as to prevent scouring or erosion.
9. 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 permittee 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 permittee must electronically submit compliance monitoring data via the eDMR system. In regards to Standard Conditions Part I, Section B, #7, the eDMR system is currently the only Department approved reporting method for this permit.
  - (b) 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 855-789-3889 or 573-526-2082 for assistance.
  - (c) Waivers from Electronic Reporting.
    - (1) The permittee must electronically submit compliance monitoring data and reports unless a waiver is granted by the Department in compliance with 40 CFR Part 127.
    - (2) The permittee 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 permittees 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.
10. The laboratory results of all samples from a discharge collected and analyzed must be retained on site with monitoring records and made available to the Department upon request. This includes the samples taken prior to drainage of a pool or water feature.
  11. It is a violation of the Missouri Clean Water Law to fail to pay fees associated with this permit (Section 644.055, RSMo). The fees can be found at 10 CSR 20-6.011.
  12. Compliance with all requirements in this permit does not supersede nor remove liability for compliance with county and other local ordinances. It is the responsibility of the facility to contact the local sewer authority and/regulated MS4 to ensure discharges are authorized.
  13. This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, termination or notice of planned changes or anticipated non-compliance does not stay any permit condition.
  14. The permittee shall provide to the Department, within a reasonable time, any information which 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 compliance with this permit. The permittee shall also furnish to the Department upon request copies of records required to be kept by this permit.
  15. The permittee 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 in the discharge. 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.
  16. The following minimum BMPs must be implemented at all facilities:
    - (a) Store all paints, solvents, petroleum products, petroleum waste products and storage containers (such as drums, cans, or cartons) so they are not exposed to stormwater or provide other prescribed BMPs such as plastic lids and/or portable spill pans to prevent the commingling of stormwater with container contents. Commingled water may not be discharged under this permit. Provide spill prevention, control, and countermeasures to prevent any spill of these pollutants from entering waters of the state. Any containment system used to implement this requirement shall be constructed of materials compatible with the substances contained and shall prevent the contamination of groundwater.
    - (b) Provide sediment and erosion control sufficient to minimize sediment loss off of the property, pollution of waters of the state, and to comply with the conditions of this permit, Missouri Clean Water Law, and the CWA. This may require the use of straw bales, silt fences, sediment basins, or other treatment structures. This may require the construction of properly designed sediment basins or other treatment structures.
    - (c) Provide good housekeeping practices on-site to keep solid waste from entering waters of the state.
    - (d) Facilities shall manage materials (products, stockpiles, waste piles, etc.) to ensure these materials are not discharged off-site or into a water of the state during a high water event.

17. 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 RSMo § 644.051.16, , 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 Sections 301(b)(2)(C) and (D), § 304(b)(2), and § 307(a)(2) of the Clean Water Act, if the effluent standard or limitation so issued or approved contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or controls any pollutant not limited in the permit.
18. Reporting of Non-Detects:
  - (a) An analysis conducted by the permittee or their contracted laboratory shall be conducted in such a way the precision and accuracy of the analyzed result can be enumerated.
  - (b) The permittee shall not report a sample result as “Non-Detect” without also reporting the detection limit of the test. Reporting as “Non-Detect” without also including the detection limit will be considered failure to report, which is a violation of this permit.
  - (c) The permittee shall report the “Non-Detect” result using the less than “<” symbol and the minimum detection limit (e.g. <10).
  - (d) Where the permit contains a Minimum Level (ML) and the permittee is granted authority in the permit to report zero in lieu of the <ML for a specified parameter (conventional, priority pollutants, metals, etc.), then zero (0) is to be reported for the parameter.
  - (e) See Standard Conditions Part I, Section A, #4 regarding proper detection limits used for sample analysis.
  - (f) When calculating monthly averages, one-half of the 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).

#### LAND APPLICATION REQUIREMENTS

1. Land application of pool wastewater:
  - (a) Shall not 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 not be land applied within thirty (30) days prior to crop harvesting or grazing by cattle;
  - (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 (e);
  - (f) Shall not cause surface ponding or runoff of process wastewater from the application site during land application; and
  - (g) 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 not located on property;
    - (3) 150 feet of an occupied residence, public building, or public use area; and
    - (4) 300 feet of a sinkhole, losing stream, or other direct conduit to groundwater;
2. The process wastewater land application systems shall be operated so as to provide uniform distribution of process wastewater over the entire irrigation site.
3. 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.
4. The land application site and systems shall be visually inspected at least hourly 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.
5. 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.
6. These requirements do not supersede nor remove liability for compliance with county and other local ordinances.

#### REQUIREMENTS

1. No-discharge Systems:
  - (a) 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.

- (b) Storage basins shall have an emergency spillway to protect the structural integrity 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 function improperly, as this may result in a catastrophic failure of the storage basin.
2. The storage basin berms shall be mowed and kept free of any deep rooted vegetation, burrowing animal dens, or other potential sources of damage to the berms.
3. Ensure adequate provisions are provided to prevent surface water intrusion into storage basins and to protect earthen embankments of storage basins from erosion.
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.

#### STANDARD CONDITIONS

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

#### PERMIT RENEWAL

1. Unless terminated, the permittee 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, and if the Department is unable through no fault of the permittee 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 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>.

#### PERMIT TRANSFER

1. This permit may only be transferred to a new owner 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 having undergone transfers of ownership without prior notice to the Department will be considered to be operating without a permit.

#### PERMIT TERMINATION

1. The permittee shall apply for permit termination when activities covered by this permit have ceased. If release of effluent or potential for release of effluent from a permitted facility is permanently eliminated, the existing permit may be terminated.
2. 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.
3. Permits do not terminate when they expire. In order to terminate this permit, the permittee 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-G76XXX

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:  
 Master General Permit

### **Part I – Facility Information**

Facility Type: Industrial  
Facility SIC Code(s): SIC Codes 5999, 7000, 7010, 7030, 7032, 7996, 7997, 7999, others as applicable  
Facility Description: This permit authorizes the discharge of process water from filter backwash and pool drainage from swimming pools and water features which use chlorine or bromine as a sanitizer through chemical addition or generation to waters of the state of Missouri including, but not limited to, amenities falling under Standard Industrial Classification (SIC) codes 7000, 7010, 7030, 7032, 7997, 7999.

### **Clarifications**

#### **Salt Water Pools:**

While no chlorine is directly added to a “saltwater pool”, saltwater pools are not chlorine-free, the salt added to the water is converted in the generator through electrolysis to chlorine. Because of this process, the actual sanitizer in saltwater pools is chlorine.

#### **Filter Backwash:**

Filter systems include granular media filters such as sand filters, fabric filters (such as paper or cloth cartridge filters) or diatomaceous earth filters. Backwash of sand filters will result in the discharge of an initial high concentration of solids. Backwash of diatomaceous earth filters will result in the discharge of the same types of solids as from sand filters plus the precoat diatomaceous earth added to the filter fabric. Cloth cartridge filters are manually cleaned by rinsing in water and paper cartridges can be cleaned or simply disposed of.

Since pool water is commonly used for backwash, the filter backwash water will usually contain chlorine at a concentration equivalent to the level maintained in the pool. Unless the facility has adequate holding and treatment capacity to dissipate chlorine and settle the solids, this wastewater shall be discharged to a sanitary sewage system. Solids must be removed through either skimming or settling and sanitizers must be reduced to 0.13mg/L or below, and pH must be within 6.5-9.0

Over time, settling equipment fills up with settled solids, resulting in decreased volume and residence time for wastewater and ultimately, ineffective solids treatment. Solids should be removed occasionally to insure effective settling occurs assuring permit limits are met.

#### **Drainage or Drawdown:**

At the end of the operating season, outdoor facilities commonly drain out a large portion of the pool volume. Drawing down the pool allows space for ice expansion and yet provides adequate pressure on the walls to prevent collapse. Indoor facilities may operate for many years before the pool needs to be drained and refilled. If a pool is drained or drawn down, a sample must be obtained and analyzed per Table B. If a flow through water feature is discharging to waters of the state, a sample must be obtained and analyzed per Table B.

## **Significant Changes**

Changes to this permit include:

- Added additional SIC Codes for more accurate representation of facilities with pool and water features.
- Added effluent limits for bromine as a permitted sanitizer.
- Added language for the inclusion of "saltwater" pools.
- Clarified conditions for addition or exemption of splash pads and fountains.
- Added language to prohibit discharge to Metropolitan No-Discharge Streams.
- Added language to prohibit direct discharge to sinkholes, caves, fissures, or other openings which could drain into aquifers.
- Updated language to clarify no discharge into the watersheds of designated L1 waterbodies per 10 CSR 20-7.015(3).
- Added language for discharging to impaired waters.
- Added language to prohibit stream alterations.
- Updated language for TRC limits.
- Clarified language for pool drainage, filter backwash and use of BMPs.
- Clarified language for no discharge reporting.
- Clarified language for sampling of pool wastewater prior to discharge.
- Clarified conditions of the annual report.
- Removed outfall signage requirement.
- Added outfall maintenance requirements.
- The addition of language requiring use of the Electronic Discharge Monitoring Report (eDMR) system.
- Clarified language for retention of records, such as sample results, and availability to the Department.
- Updated language to match that currently being used in General Permits.
- Rearranged and organized permit to match current General Permits.

## **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
- ✓ Lake or Reservoir
- ✓ Losing
- ✓ Metropolitan No-Discharge – No-discharge facilities only.
- ✓ Special Stream – No-discharge facilities only.
- ✓ All Other Waters

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 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.

✓ Not Applicable: All effluent limitations in this permit are at least as protective as those previously established.

**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: The pollutant of concern in this permit is total residual chlorine. Compliance with the effluent limits established in this permit for the protection of General Criteria meets the requirements of Missouri's Antidegradation Review [10 CSR 20-7.031(3) and Table A and 10 CSR 20-7.015(9)(A)5].

**CHLORINE AND BROMINE:**

Bromine is a commonly used sanitizer in swimming pools and hot tubs, therefore it was added as an alternative to chlorine. Both contaminants behave nearly identically in the freshwater environment causing rapid chemical oxidation reactions with available molecules. These halogens are found in the same category of the periodic table, are highly reactive, and neither is found elementally in nature. Missouri's Water Quality Standards do not include limitations for bromine; however, given the inherent chemical similarity, the permit writer has determined bromine and chlorine may be considered the same pollutant therefore they are both covered under this permit. Most of the on-site devices used to test for chlorine also have cross-sensitivities to bromine, therefore, when one is completing a test for total residual chlorine, the test is also measuring total residual bromine and many other light halogens located in column 17 of the periodic table.

Chlorine is a pollutant associated with chlorinated municipal water, also known as potable water. Additionally, chlorine or bromine in gaseous, liquid, or solid form may be added to pools or water features as a sanitizer for human health protection. To protect the aquatic environment of the receiving water, the concentration of disinfectants must be minimized prior to discharge to meet effluent limitations. The following are common minimization methods:

Natural Dissipation - Discontinuing sanitizer and allowing the wastewater to sit for a few days prior to drainage should be sufficient in most cases to allow dissipation of chlorine levels to the point where permit limits are met. The actual amount of time necessary must be verified by analysis prior to discharge.

Chemical Reduction - A treatment system consisting of a holding tank and chemical addition may be necessary for the elimination of chlorine or bromine in the filter backwash water, whirlpool water, and other highly sanitized discharges. Sulfur compounds (e.g., dechlorination compounds include sulphur dioxide, sodium metabisulfite, sodium bisulfite, sodium sulfite, and sodium thiosulfate) can be used to reduce chlorine or bromine levels to meet permit limits. If chemical reduction of chlorine is used, dissolved oxygen level may be lowered. The use of these chemicals must be reported to the Department in the required annual report.

**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 this industry there is no RP for putrescent bottom deposits preventing full maintenance of beneficial uses because nothing disclosed by the permittee indicates putrescent wastewater would be discharged from the facility.
  - For this industry, there is RP for unsightly or harmful bottom deposits preventing full maintenance of beneficial uses because settleable solids are a known pollutant of concern in pool and filter backwash discharges which indicates unsightly or harmful bottom deposits could be discharged from the facility. Limitations are continued for settleable solids to protect this general 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 this industry, there is no RP for oil in sufficient amounts to be unsightly preventing full maintenance of beneficial uses because no research done by the permit writer indicates oil 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 this industry, there is no RP for unsightly color or turbidity in sufficient amounts preventing full maintenance of beneficial uses because no research done by the permit writer indicates unsightly color or turbidity will be present in sufficient amounts to impair beneficial uses. Additionally, this permit has limits for settleable solids, which are believed to be the primary pollutant of concern in pool discharges.
  - For this industry, there is no RP for offensive odor in sufficient amounts preventing full maintenance of beneficial uses because no research done by the permit writer indicates 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 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.
- It is the permit writer's opinion that this criterion is the same as (D).
- (F) There shall be no acute toxicity to livestock or wildlife watering.
- It is the permit writer's opinion that this criterion is the same as (D).
- (G) Waters shall be free from physical, chemical or hydrologic changes which would impair the natural biological community.
- For this industry, there is RP for physical or hydrologic changes from the discharges covered under this permit. The permit writer has included conditions which require the permittee to monitor and control the discharges in such a way as to prevent erosion and scouring, which protects for this criterion.
  - It has been established 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.

**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>

**OPERATOR CERTIFICATION REQUIREMENTS:**

As per 10 CSR 20-6.010(8) Terms and Conditions of a Permit, permittees shall operate and maintain facilities to comply with the Missouri Clean Water Law and applicable permit conditions and regulations. Operators or supervisors of operations at regulated wastewater treatment facilities shall be certified in accordance with [10 CSR 20-9.020(2)] and any other applicable state law or regulation.

✓ Not Applicable: This facility is not required to have a certified operator.

**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 (<http://dnr.mo.gov/env/wpp/permits/manual/permit-manual.htm>), the EPA'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 EPA, 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 does demonstrate reasonable potential for excursions from the general or narrative water quality criteria. See Part IV: Effluent Limit Determinations for specific parameter RP.

**SCHEDULE OF COMPLIANCE (SOC):**

Per § 644.051, RSMo, a permit may be issued with a Schedule of Compliance (SOC) to provide time for a facility to come into compliance with new state or federal effluent regulations, water quality standards, or other requirements. Such a schedule is not allowed if the facility is already in compliance with the new requirement, or if prohibited by other statute or regulation. An SOC includes an enforceable sequence of interim requirements (actions, operations, or milestone events) leading to compliance with the Missouri Clean Water Law, its implementing regulations, and/or the terms and conditions of an operating permit. *See also* Section 502(17) of the Clean Water Act, and 40 CFR 122.2. For new effluent limitations, the permit may include interim monitoring for the specific parameter to demonstrate the facility is not already in compliance with the new requirement. Per 40 CFR 122.47(a)(1) and 10 CSR 20-7.031(11), compliance must occur as soon as possible. If the permit provides a schedule for meeting new water quality based effluent limits, an SOC must include an enforceable, final effluent limitation in the permit even if the SOC extends beyond the life of the permit.

- ✓ Applicable: Facilities seeking renewal under this permit that currently discharge to the watershed of a Metropolitan No-Discharge Stream shall comply with the following Schedule of Compliance:
  - a) The facility shall evaluate the discharges to determine how to connect to sanitary sewer, operate as a no discharge facility, or other alternative methods within five (5) years of the master general permit template issuance. The evaluation shall include, but is not limited to: discussions with the local sanitary sewer authority for connection to the sewer system, engineering evaluation of connecting to the sanitary sewer, contracting for pump and haul of the swimming pool contents. Documents related to this evaluation shall remain with permit records and made available to the Department upon request.
  - b) The facility shall submit annual progress reports by August 28<sup>th</sup> of each year for the previous August 1<sup>st</sup> through July 31<sup>st</sup> period, listing the following information:
    - i. Actions taken to ensure compliance with discontinuing discharge to the watershed of a Metropolitan No-Discharge Stream.
    - ii. Estimated schedule for corrective actions to be complete.
  - c) Report shall be submitted via the eDMR system as an attachment. If the report is attached "0" will be reported for the annual reporting period. If no report is attached, a "1" shall be reported. Reporting a "0" (i.e., stating the report is attached) and failing to attach the annual progress report is a violation of this permit.
  - d) The facility shall cease discharging to the watershed of a Metropolitan No-Discharge Stream by August 1, 2024.

**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.

Per 10 CSR 20-7.015(3)(C), this permit does not authorize discharge to L1 watersheds or waterbodies. This regulation is to protect waterbodies constructed and used primarily for drinking water sources, and prohibits the discharge of wastewaters into these watersheds.

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. These watersheds require no discharge of effluent. Effluent must be land applied or beneficially reused and are not authorized to discharge to waters of the state.

This permit prohibits discharges to Metropolitan No-Discharge watersheds and streams. Per 10 CSR 20-7.031 (7) no water contaminant shall be discharged to the watersheds of metropolitan no-discharge streams except uncontaminated cooling water, permitted stormwater discharges in compliance with permit conditions, or excess wet-weather bypass discharges not interfering with beneficial uses. As this permit authorizes wastewater discharges which do not fit any of these exceptions, discharge is not authorized to these watersheds/streams.

If the previously covered facility discharges to the watershed of a Metropolitan No-Discharge Stream, the permit holder has five years to comply with the requirement to cease discharging to the watershed of a Metropolitan No-Discharge Stream. The progress reports are separate from the annual report due on October 28<sup>th</sup>.

If the facility connects all backwash and pool or feature drainage to sanitary sewer, the facility may terminate the permit. If the facility is land applying the pool wastewater, the facility must still report for Table C and Table D of the permit.

Per 10 CSR 20-7.015(7) no wastewater shall be introduced into sinkholes, caves, fissures, or other openings in the ground that could drain into aquifers (except losing streams). This requirement replaces the previous permit's exclusion of facilities which would discharge to losing streams. It is believed the regulations are protective of the groundwater designation, and additional protections extending to losing streams is unnecessary to protect waters of the state.

Should the permittee choose land application as a best management practice, additional setbacks apply per 10 CSR 20-8.200(6). These setbacks are continued from the previous permit.

**EXEMPTIONS:**

Single family residences:

A pool or water feature connected with a single family residence or owner occupied duplex, located on private property under the control of the property owner the use of which is limited to family members or the family's invited guests. A private residential pool is not part of a business.

Facilities discharging directly to a combined sewer system:

Combined sewer systems are sewers that are designed to collect stormwater, domestic sewage, and industrial wastewater in the same pipe and transport this wastewater to a sewage treatment plant.

Flow to Best Management Practices:

If a facility is designed, constructed and operated so there is no discharge of pool wastewater to waters of the state it is considered "no-discharge." Flow-through fountains, and water features where the water flows to a Best Management Practice (BMP) that will decrease the chlorine level and where the wastewater is absorbed or collected are considered no-discharge. These BMPs include, but are not limited to; a stormwater detention basin, a water quality facility, vegetation, landscaped areas, evaporative surfaces, overland flow, riprap, gravel, or other permeable ground, where the flow travels these surfaces for 1000 feet or greater and where the water soaks fully into the ground.

Gallon exemption for non-swimming pool water features: For this permit 11,000 gallons or less of water from a water feature, such as a fountain, which have no added sanitizers, or where the sanitizers have been allowed to dissipate, and no pool additives, are exempt from this permit. Best Management Practices should be used. This is intended for facilities such as decorative fountains where the water has not been treated with pool additives, and where the water is not intended for human contact such as swimming. Water conditioned for human contact may contain more additives to make the water more comfortable for humans, and more sanitizer for the addition of more bacteria due to humans. Humans also add more bacteria, more oils and greases, and solids such as hair. Uses for animals, such as a dog park, add the same elements as human use.

**Beneficial reuse:** For this permit, wastewater from a pool or water feature may be used for beneficial reuse such as watering vegetation, as long as the wastewater is stored, operated, and applied in a manner that does not discharge to waters of the state. The reuse must comply with Solid Waste regulations 10CSR 80-2.020(9) for beneficial use of solid waste. The department may grant an exemption from having to obtain either a solid waste disposal area permit or coverage under this permit. This can be decided by contacting a Department Regional Office or the Department Water Protection Program. Engineering plans, photos, or site visits may be required by the Department for this exemption.

The no-discharge permit exemption does not excuse any facility or any person from complying with or from liability for violations of the Missouri Clean Water Law and regulations or any other state or local laws. Failure to operate and maintain the facility as a no-discharge wastewater treatment system may be considered a violation of the Missouri Clean Water Law and its regulations resulting in enforcement action.

**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.

**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.

✓ Not applicable; this permit does not authorize land application of industrial sludge. Solids and floatables from filter backwash shall be disposed of as solid waste to landfill.

**SPILL REPORTING:**

Per 260.505 RSMo, 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>.

**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 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.

✓ 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.

**WHOLE EFFLUENT TOXICITY (WET) TEST:**

✓ Per 10 CSR 20-7.031(1)(FF), a toxicity test conducted under specified laboratory conditions on specific indicator organism; and per 40 CFR 122.2, the aggregate toxic effect of an effluent measured directly by a toxicity test. A WET test is a quantifiable method of determining if a discharge from a facility may be causing toxicity to aquatic life by itself, in combination. This permit provides numeric effluent limitations for all parameters of concern therefore WET testing is not required in accordance with 40 CFR 122.44(d)(1)(v).

**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 AND TABLE B:**

PARAMETERS	Unit	Daily Maximum	Monthly Average	Minimum Sampling Frequency	Minimum Reporting Frequency	Modified	Previous Permit Limits
Flow	MGD	*	*	monthly		No	
Chlorine, Total Residual	mg/L	0.13 ML**	0.13 ML**	monthly	quarterly	No	
Bromine, Total Residual	mg/L	0.13 ML**	0.13 ML**	monthly	quarterly	New	
Chloride	mg/L	378	188			New	
Dissolved Oxygen	mg/L	5.0	5.0	monthly	quarterly	No	
pH***	SU	6.5-9.0	6.5-9.0	monthly	quarterly	No	
SETTLABLE SOLIDS (SS)	ML/L/HR	1.5	1.0	monthly	quarterly	No	

- \* Monitoring and reporting requirement only
- \*\* The limitations for chlorine and bromine are determined based on use designation. The ML is 0.013 mg/L for both use designations.  
**For warm water habitats (WWH) and cool water habitats (CLH):**  
 Daily maximum limit: 0.017 mg/L  
 Monthly average limit: 0.008 mg/L  
**For cold water habitats (CDH):**  
 Daily maximum limit: 0.003 mg/L  
 Monthly average limit: 0.016 mg/L
- \*\*\* Report the minimum and maximum pH values; pH is not to be averaged
- NEW Parameter not established in previous state operating permit

**DERIVATION AND DISCUSSION OF LIMITATIONS:**

**Flow**

In accordance with 40 CFR Part 122.44(i)(1)(ii), the volume of effluent discharged from each outfall is needed to assure compliance with permitted effluent limitations. If the permittee is unable to obtain effluent flow, then it is the responsibility of the permittee estimate the volume as the total gallons of water released. The facility will report the total flow in gallons per day (GPD).

**Total Residual Chlorine (TRC)/ Total Residual Bromine (TRB)**

The limitations for chlorine (and by extension, bromine) are determined based on use designation. The Minimum Quantification Level (ML) is 130 µg/L for both use designations. The ML is based on the analytical methods used to determine compliance with the WQS; these methods have limited detection capacity.

- For warm water habitats (WWH) and cool water habitats (CLH):**  
 Daily maximum limit: 0.017 mg/L  
 Monthly average limit: 0.008 mg/L
- For cold water habitats (CDH):**  
 Daily maximum limit: 0.003 mg/L  
 Monthly average limit: 0.016 mg/L

The effluent limits are below the minimum quantification level (ML) of the most sensitive EPA approved CLTRC methods. The Department has determined the current acceptable ML for total residual chlorine to be 0.013 mg/L when using the DPD Colorimetric Method #4500 – CL G. from Standard Methods for the Examination of Waters and Wastewater. The permittee will conduct analyses in accordance with this method, or equivalent, and report actual analytical values. Measured values greater than or equal to the minimum quantification level of 0.0130 mg/L will be considered violations of the permit and values less than the minimum quantification level of 0.013 mg/L will be considered to be in compliance with the permit limitation. The minimum quantification level does not authorize the discharge of chlorine in excess of the effluent limits stated in the permit.

**For warm water habitat use designation (WWH-AQL) and cool water habitats (CLH-AQL):**

Warm-water Protection of Aquatic Life: CCC = 0.010 mg/L, CMC = 0.019 mg/L  
[10 CSR 20-7.031, Table A 1]. Background TRC = 0.000 mg/L.

Chronic WLA: 0.010 mg/L  
Acute WLA: 0.019 mg/L

**For cold water habitat use designation (CDH-AQL):**

Cold-water Protection of Aquatic Life: CCC = 0.002 mg/L, CMC = NA  
[10 CSR 20-7.031, Table A 1]. Background TRC = 0.000 mg/L.

Chronic WLA: 0.002 mg/L  
Acute WLA: none

**Chloride**

Daily maximum limit of 378 mg/L, with a monthly average limit of 188 mg/L. This limitation is only required for “saltwater” pools. Research by the permit writer indicated this parameter should be added to pool drainage for “saltwater” pools as chloride is a pollutant of concern in discharges of these pools. “Saltwater” pools use dissolved sodium chloride (NaCl) which passes through an electric current (electrolysis) and is converted to create chlorine gas (Cl<sub>2</sub>) along with hydrogen gas (H<sub>2</sub>) and sodium hydroxide (NaOH).

Chloride is what is created when Chlorine gains an electron and combines with other elements. Chloride is found abundantly in nature and is most commonly known for forming neutral salts such as sodium chloride. Because chlorine is the result of the electrolysis, there may be a residual of chloride in the pool water once the chlorine generator is no longer on. While chlorine as a gas will dissipate or break down, salts do not, therefore drainage from saltwater pools have an additional requirement to monitor for chlorides.

Protection of Aquatic Life Chronic Criteria = 230 mg/L, Acute Criteria = 860 mg/L.

Chronic WLA: C<sub>c</sub> = 230 mg/L

Acute WLA: C<sub>e</sub> = 860 mg/L

LTA<sub>c</sub> = 230 (0.527) = 121.3 mg/L

LTA<sub>a</sub> = 860 (0.321) = 276.1 mg/L

Use most protective number of LTA<sub>c</sub> or LTA<sub>a</sub>.

MDL = 121.31 (3.114) = 377.8 = **378 mg/L**

AML = 121.31 (1.552) = 188.3 = **188 mg/L**

[CV = 0.6, 99<sup>th</sup> Percentile]

[CV = 0.6, 99<sup>th</sup> Percentile]

[CV = 0.6, 99<sup>th</sup> Percentile]

[CV = 0.6, 95<sup>th</sup> Percentile, n = 4]

**Dissolved Oxygen:**

Warm water aquatic habitat water quality limits for dissolved oxygen are minimum 5 mg/L [10 CSR 20-7.031 Table A 1].

Adequate dissolved oxygen is necessary for good water quality. As dissolved oxygen levels in water drop below 5.0 mg/l, aquatic life is put under stress. While testing for dissolved oxygen may not be a normal procedure of daily pool operation, it is necessary to test before discharge to ensure the wastewater is not too low.

As the pool wastewater sits without aeration, oxygen levels will decrease. Addition of rough surfaces such as rip-rap, gravel, or vegetation for the discharge to flow over will increase the dissolved oxygen levels.

**pH**

2.5 to 9.0 SU – instantaneous grab sample. Water quality limits [10 CSR 20-7.031(5)(E)] are applicable to this outfall.

The pH of water has an effect on the efficiency of the sanitizer. Pools are often using additives to adjust the pH levels to maintain sanitation and comfort levels for the swimmers. Bromine has a pH of 4.0-4.5. Chlorine in outdoor pools must be shielded from the degrading effects of the sun's ultraviolet (UV) rays. Cyanuric acid, which has a pH of 4.0, is used in outdoor pools with the inorganic chlorines such as calcium hypochlorite, sodium hypochlorite, and chlorine gas.

Certain cleaning products also adjust the pH, making pool cleaning discharge subject to testing before discharge.

### **Settleable Solids**

The previous permit required a daily maximum limit of 1.5 mL/L/hr and a monthly average of 1.0 mL/L/hr. There is no numeric water quality standard for SS; however, sediment discharges can negatively impact aquatic life. Increased settleable solids are known to interfere with multiple stages of the life cycle in many benthic organisms. For example, they can smother eggs and young or clog the crevasses benthic organisms use for habitat. The effluent limitations in the previous permit have been reevaluated and found to be protective of the receiving streams.

Settleable solids are also a valuable indicator parameter. Solids monitoring allows the permittee to identify increases in sediment and solids indicating uncontrolled materials leaving the site. In swimming pools this can be an accumulation of leaves, hair, grease from sunscreen, bugs, and other contaminants.

For filter backwash, it is necessary to treat the backwash prior to discharge to a surface water. The filter backwash contains a concentration of dissolved solids such as, perspiration, body oils, lotions, and nitrogen compounds making direct disposal to sanitary sewer the preferred option. The settleable solid daily maximum effluent limit is based on the ability of simple settling equipment to easily remove settleable solids from the discharge. For the filter backwash discharge, the first five minutes of backwash is the period when settleable solids will be at the highest concentration. Allowing this discharge time to settle out the solids, and dissipate the sanitizer will be necessary until disposal to sanitary sewer or land application is possible.

Over time, settling equipment fills up with settled solids, resulting in decreased volume and ultimately, ineffective retention volume. Solids should be removed occasionally to insure effective settling occurs assuring permit limits are met.

## **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 and a monthly average. Monthly or yearly monitoring is required depending on the parameter. Results from samples may be submitted as both the daily maximum and the monthly average. If the facility collects multiple samples during any month, the permit requires the facility to submit a monthly average. 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 or; 2) the method minimum level is above the applicable water quality criterion, but the amount of pollutant in a facility’s discharge is high enough the method detects and quantifies the level of pollutant in the discharge, or 3) the method has the lowest minimum level of the analytical methods approved under 10 CSR 20-7.015 and or 40 CFR 136. These methods are also required for parameters listed as monitoring only, as the data collected may be used to determine if numeric limitations need to be established. A 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 A 1-B3 at 10 CSR 20-7.031 shows water quality standards.

## **Part VI – Administrative Requirements**

On the basis of 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 was required for this permit because it has greater than 50 permittees. The meeting was held on February 13, 2019.

**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 Comment Period for this permit was from 4/12/2019 to 05/13/2019. Two letters were received during the 30-day Public Comment Period. The comments and Department's responses are below and is in reference to the Public Noticed version of this permit. No changes were made to the permit in response to the public notice comments.

The Department added a Schedule of Compliance for facilities operating in the watershed of Metropolitan No Discharge streams, to add clarity due to an internal comment during Public Notice.

**Comment #1:** The requirement for reporting Dissolved Oxygen and Settleable Solids is burdensome of facilities as a monthly reporting requirement.

**Response #1:** The Department has determined the monthly reporting requirement is appropriate. Monthly sampling was carried over from the last permit, but we changed the reporting frequency to monthly. Because pools backwash more than once a month and are expected to sample each time they backwash, the monthly reporting was added to help reduce violations for non-reporting. Reporting records show the current MSOP requirement for annual reporting of monthly sampling left a large number of facilities in violation due to not reporting. Staff can report monthly sampling while still at the facility, not in a month most facilities are not operating.

**Comment #2:** Facilities do not have the capability of testing for these two requirements and it requires them to send water off to a lab.

**Response #2:** The Department as determined that while testing for dissolved oxygen may not be seen as a normal procedure of daily pool operation, it is necessary to test before discharge to ensure the wastewater is not too low in dissolved oxygen. Adequate dissolved oxygen is necessary for good water quality. When dissolved oxygen levels in water drop below 5.0 mg/l, aquatic life is put under stress. A common cause of fish kills in the summer is low concentrations of dissolved oxygen in the water. Pool treatments and sanitizers can affect the dissolved oxygen levels. There are several kits available for under \$100.

While testing for settleable solids may not be seen as a normal procedure of daily pool operations, it is necessary to test. Increased settleable solids can negatively impact aquatic life by interfering with multiple stages of the life cycle. Settleable solids can smother eggs and young or clog the crevasses benthic organisms use for habitat.

Settleable solids are also a valuable indicator parameter. Solids monitoring allows the permittee to identify increases in sediment and solids indicating uncontrolled materials leaving the site. Settleable solids are often higher in the filter backwash due to the collecting of leaves, hair, grease from sunscreen, bugs, and other contaminants. Certain types of filters discharge the majority of their filter material along with the collected debris. There are Imhoff cone kits available for under \$50 for testing settleable solids. The Department is keeping both parameters in the permit.

**Comment #3:** The amount of water discharged monthly from aquatic facilities is not significant enough to justify these tests.

**Response #3:** The Department considered the volume of wastewater from pool discharge or backwash cycles in relationship to the receiving streams, which may not have a large volume of water. Since filters are backwashed numerous times during the pool season, the accumulation of settleable solids and repeated discharge of wastewater with sanitizer can impact the water quality in the stream. The Department will leave the permit as drafted.

**COMPLETED BY:**

DATE OF FACT SHEET :02/26/2019; UPDATED 05/15/2019

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