STATE OF MISSOURI

DEPARTMENT OF NATURAL RESOURCES

MISSOURI CLEAN WATER COMMISSION

MISSOURI STATE OPERATING PERMIT

In compliance with the Missouri Clean Water Law, (Chapter 644 R.S. Mo. as amended, hereinafter, the Law), and the Federal Water Pollution Control Act (Public Law 92-500, 92nd Congress) as amended,

Permit No.	MO-G490000
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:	<1/4, 1/4, 1/4, Sec. xx, TxxN, RxxW <county>County
UTM Coordinates:	X= Y=
Receiving Stream:	<receiving stream> <C, P, L1, L2, L3>
First Classified Stream and ID:	<1st classified stream> <C, P, etc.)><ID number> 303(d) List
USGS Basin & Sub-watershed No.:	<USGS HUC 12#>

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 (As listed in the permit application)
SIC #1411, 1422, 1429, 1446, 295x, 32xx
Stormwater and other specified discharges from limestone and other rock quarries, concrete, glass, and asphalt industries.

This permit authorizes only process wastewater and/or stormwater 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 Section 621.250, 640.013, and 644.051.6; 10 CSR 20-1.020 and 20-6.020 of the Law.

.

May 1, 2017
Effective Date

Steven Feeler, Acting Director, Division of Environmental Quality

April 30, 2022
Expiration Date

David J. Lamb, Acting Director, Water Protection Program

APPLICABILITY

1. This Missouri State Operating Permit (permit) authorizes the discharge of process wastewater and stormwater to waters of the state of Missouri from multiple industries, including but not limited to permittees (facilities) with the primary Standard Industrial Classification (SIC) Codes:

SIC Code	Activity
1411	Dimension Stone;
1422	Crushed and Broken Limestone;
1429	Crushed and Broken Stone, Not elsewhere Classified;
1446	Industrial Sand, including fracturing sand;
2951	Asphalt Paving Mixtures and Blocks;
2952	Asphalt Shingle, Felts and Coatings;
32xx	Stone, Clay, Glass, and Concrete Products;

   or facilities that the Missouri Department of Natural Resources (department) determines are similar to facilities that are under the above SIC Codes, to include stormwater runoff and quarry pit or mine de-watering.

2. The stormwater provisions of this permit are applicable to facilities (associated with the above industries) with materials exposed to stormwater

3. If a facility has no materials exposed to stormwater, the facility may apply for No Exposure Certification in lieu of coverage under this permit. A No Exposure certification https://www.epa.gov/sites/production/files/2015-10/documents/msgp2015_appendixk.pdf must be submitted with the application for permit coverage. Some examples of the no exposure requirements are:
   (a) Drums, barrels, tanks, and similar containers are tightly sealed, provided those containers are not deteriorated and do not leak (sealed means banded or otherwise secured and without operational taps or valves);
   (b) Adequately maintained vehicles are used in material handling; and
   (c) All industrial materials consist of final products other than products that would be mobilized by stormwater [10 CSR 20-6.200(1)(B)16].

4. Co-located Industrial Activities: A facility may obtain authorization under this general permit if the facility has one or more of the SIC Codes listed as applicable to this permit. If these facilities have additional activities that are described by a secondary SIC code that is listed above, then these additional activities are described as co-located industrial activities. Stormwater and applicable wastewater discharges from co-located industrial activities may be authorized under this general permit provided that the facility complies with all of the sector specific requirements defined in this general permit for each of these co-located activities. The sector specific requirements apply only to the portion of the facility where that specific sector of activity occurs, except where runoff from different activities combines before leaving the property. In cases where these discharges are comingled, the most stringent monitoring requirements and effluent limitations for the comingled discharge must be met.

5. Co-located Industrial Facilities: A facility operator may obtain authorization under this general permit if the facility meets one or more of the SIC Codes listed as applicable to this permit. If authorization under this general permit is sought, the operator of each co-located facility may individually obtain authorization to discharge under this general permit. If individual coverage is sought, each co-located facility will then be issued a unique permit authorization number.

6. Facilities holding this permit are exempted from obtaining a land disturbance permit for activities covered by the permit so long as the permit is obtained prior to the beginning of any land disturbance activities.

7. Industrial mining and processing of fracturing sand (SIC 1446) and any other types of industrial sand (glass sand, molding sand, abrasive sand) engaged in activities similar in nature to rock quarries such as underground mining, grinding, crushing, pulverizing and/or blasting are covered under this permit. Any industrial sand facilities engaged in activities similar to construction aggregate mining such as the dredging or excavation of unconsolidated sand deposits from open pits may be covered under the MO-G500000 general permit.

8. This permit does not authorize the discharge of waters with added detergents, additives, cleaners, or solvents. For the purpose of this permit, coagulants and flocculants used as treatment to reduce Total Suspended Solids and/or pH are not considered to be "additives" and may be added to wastewater in accordance with manufacturer's instructions in order to meet permit requirements.

9. Vehicle and equipment wash water with added detergents, acids, caustics, solvents, or other washing additives is authorized only if the total volume of water used is less than 500 gallons per day and the wash water is not discharged. This means that the wash water with said additives must not enter settling basins or other treatment device, unless such devices are designed and operated to be no-discharge. It must soak into the ground, evaporate, or be contained in a tank on site.

APPLICABILITY (continued)

10. Vehicle and equipment wash water without added detergents, acids, caustics, solvents or other washing additives is authorized, and may enter settling basins or other treatment devices as long as it meets the provisions of this permit prior to discharge into waters of the state.
11. This general operating permit **does not authorize** non-stormwater discharges:
    (a) Within 300 feet of reservoirs or lakes used for public drinking water supplies (class L1)[1] or major reservoirs (class L2)[1];
    (b) Within 500 feet of biocriteria reference locations[1] or streams, lakes, or reservoirs identified as critical habitat for endangered species;
    (c) Within 100 feet of wetlands or sinkholes and other direct conduits to groundwater;
    (d) From mining operations other than limestone, industrial sand and other rock quarries;
    (e) From construction sand and gravel washing operations (covered by MO-G50); or
    (f) From clay pits or clay mining operations (covered by MO-G84).
12. This permit does not authorize mining activity, only water discharges that result from the activity. A permit authorizing mining activities must be obtained from the Land Reclamation Program.
13. For discharges within 1,000 feet of Outstanding State Resource Waters (OSRW) or within the watershed of Outstanding National Resource Waters (ONRW), which includes the Ozark National Riverways and the Wild and Scenic Rivers System, this permit:
    (a) Authorizes no-discharge facilities [as defined in 10 CSR 20-6.015(1)(B)7.] to operate. If a no-discharge facility desires to become a facility that is authorized to discharge stormwater, the facility is directed to contact the department to discuss applicability. Any discharge from a no-discharge facility will be considered a violation of this permit unless a catastrophic or chronic storm event [as defined in 10 CSR 20-6.015(1)(B)] occurs. In the event of a catastrophic or chronic storm event, the no-discharge facility is authorized to release only the amount of stormwater required to prevent damage to the facility or established Best Management Practices (BMPs).
    (b) Authorizes stormwater discharge facilities to operate and continue to discharge stormwater so long as the benchmarks set forth in this permit are not exceeded. Should a benchmark be exceeded, the discharge is considered to cause degradation in water quality and the facility must take corrective action to meet the benchmarks. OSRWs and ONRWs are protected against any degradation in quality as defined in 10 CSR 20-7.015(6)(B) and 7.031(3)(C). Failure to take corrective action to address a benchmark exceedance and failure to make tangible progress towards achieving compliance with the benchmarks is a permit violation. More detailed requirements concerning stormwater discharges are found in the Stormwater Requirement section of this permit. If exceedances of benchmarks continue to occur, the department may require the facility to operate as a no-discharge facility under this permit or to apply for a site-specific permit.
    (c) Does not authorize discharge of process wastewater or mine dewatering per 10 CSR 20-7.015(6)(A)3.
14. The department may require any facility authorized by a general permit to apply for and obtain a site specific operating permit. Any interested person may petition the department to take action under this subsection. Cases where an individual operating permit may be required include, but are not limited to, the following:
    (a) The discharge(s) is a significant contributor of pollution which impairs the beneficial uses of the receiving stream;
    (b) The discharger is not in compliance with the conditions of the general operating permit;
    (c) A Total Maximum Daily Load (TMDL) containing requirements applicable to these point sources is approved.
15. Facilities covered under a current site-specific permit who desire to apply for inclusion under this general permit may contact the department for application requirements and procedures.
16. 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.
17. Facilities that are located within the watershed of an impaired water as designated on 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 dnr.mo.gov/env/wpp/waterquality/index.html. Facilities that are found to be discharging the listed pollutant(s) of concern for any impaired water may be required to obtain a site-specific permit.
18. This permit does not authorize discharges of waste material, such as concrete and water from washing or emptying of concrete delivery trucks, into waters of the state. This permit does not authorize discharges to waters of the state from any location other than the outfalls described in the facility description section of this permit.

[1] Identified or described in 10 CSR 20, Chapter 7, Water Quality. These regulations are available at many libraries and online at www.sos.mo.gov, or may be purchased from the Department of Natural Resources by calling the Water Protection Program.

APPLICABILITY (continued)

19. Non-stormwater discharges are those caused by something other than stormwater runoff and include mine pit dewatering, vehicle and equipment wash water and all dry-weather discharges from processing plants. This permit does not authorize the discharge of waters with added detergents, acids, caustics, solvents, or other additives, except as allowed below.
    The following are allowable non-stormwater discharges authorized under this permit:
    (a) Uncontaminated condensate from air conditioners, coolers, and other compressors and from the outside storage of refrigerated gases or liquids;
    (b) Irrigation drainage;
    (c) Pavement wash waters where no detergents are used and no spills or leaks of toxic or hazardous materials have occurred (unless all spilled material has been removed);
    (d) Routine external building wash down that does not use detergents; and
    (e) Uncontaminated ground water or spring water.

EXEMPTIONS

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

PERMIT REQUIREMENTS

1. 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) Application 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.
        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) Other actions. The following shall be submitted electronically after such a system has been made available by the department:
        1) General Permit Applications/Notices of Intent to discharge (NOIs);
        2) Notices of Termination (NOTs);
        3) No Exposure Certifications (NOEs); and
        4) Low Erosivity Waivers and Other Waivers from Stormwater Controls (LEWs).
    (c) Electronic Submissions. To access the eDMR system, use the following link in your web browser: https://edmr.dnr.mo.gov/edmr/E2/Shared/Pages/Main/Login.aspx.
    (d) 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. 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 that the approved electronic reporting waiver is effective.

2. The discharge shall not contain floating solids or visible foam in other than trace amounts.

3. Facilities shall manage materials (products, stockpiles, waste piles, etc.) to aid in the prevention of these materials being transported off-site or into a water of the state during a high water event.

4. All outfall areas must be clearly marked in the field. On classified waters of the state, outfalls should be marked so that they are visible from both land and water perspectives.

5. 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.

6. Compliance with all requirements in this permit does not supersede nor remove liability for compliance with city, county and other local ordinances

PERMIT REQUIREMENTS (continued)

7. Waste concrete from delivery trucks shall be washed into a dedicated, enclosed, shallow depression or other device designed to capture the concrete and allow it to dry. Washing waste concrete into waters of the state or in a location where it is likely to enter waters of the state, such as a drainage ditch or storm drain, is prohibited by State Law and Regulations (644.051 RSMo, 10 CSR 20-6.010).

8. 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. This notification applies to pollutants subject to the effluent limitations of this permit as well as new pollutants that are 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 that are different from or absent in the current permit.

EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS FOR NON-STORMWATER DISCHARGES

TABLE A — **EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS**

The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective upon issuance and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the facility as specified below:

OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	SAMPLING FREQUENCY**	SAMPLE TYPE
Process Wastewater for Asphalt Emulsion Facilities (Subset of SIC 2951)**** Non-Stormwater Discharges (Note 1)						
Limit Set: PA						
Flow	gpd	*		*	once/quarter	24 hour estimate
Settleable Solids	ml/L/hr	1.5		1.0	once/quarter	grab
Oil and Grease	mg/L	15		10	once/quarter	grab
pH ***	SU	6.5 – 9.0		6.5 – 9.0	once/quarter	grab
Total Suspended Solids	mg/L	23		15	once/quarter	grab
Process Wastewater and Mine Dewatering for Industrial Sand Facilities (SIC 1446) **** Non-Stormwater Discharges (Note 1)						
Limit Set: PI						
Flow	gpd	*		*	once/quarter	24 hour estimate
Settleable Solids	ml/L/hr	1.5		1.0	once/quarter	grab
Oil and Grease	mg/L	15		10	once/quarter	grab
pH***	SU	6.5 – 9.0		6.5 – 9.0	once/quarter	grab
Total Suspended Solids	mg/L	45		25	once/quarter	grab
Process Wastewater and Mine Dewatering (where applicable) All Others (All other SIC Codes)**** Non-Stormwater Discharges (Note 1)						
Limit Set: PW						
Flow	gpd	*		*	once/quarter	24 hour estimate
Settleable Solids	ml/L/hr	1.5		1.0	once/quarter	grab
Oil and Grease	mg/L	15		10	once/quarter	grab
pH ***	SU	6.5 – 9.0		6.5 – 9.0	once/quarter	grab
Total Suspended Solids	mg/L	70		70	once/quarter	grab

MONITORING REPORTS SHALL BE SUBMITTED QUARTERLY VIA THE DEPARTMENT'S eDMR SYSTEM AS REQUIRED BY THE FEDERAL NPDES REPORTING RULE. SHOULD A WAIVER TO eDMR BE GRANTED BY THE DEPARTMENT, PAPER REPORTS SHALL BE SUBMITTED IN A TIMELY MANNER TO THE APPROPRIATE REGIONAL OFFICE. THE FIRST REPORT IS DUE MONTH 28, 2017. IT IS A VIOLATION OF THIS PERMIT TO FAIL TO SAMPLE.

* Monitoring requirement only.
** See Table B for quarterly sampling schedule.
*** pH is measured in pH units and is not to be averaged. The pH is limited to the range of 6.5-9.0 pH units.
**** Non-stormwater discharges include mine dewatering, process wastewater, truck washing, etc. Samples must be collected for non-stormwater discharges as described in Table A. Any stormwater discharges comingled with non-stormwater are considered to be process wastewater and must be monitored as such.

Note 1 - If a discharge occurs during the reporting period, samples shall be collected and tested for the parameters listed in Table A. 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 to be averaged at intervals not exceeding one calendar month (excluding pH, which is not to be averaged.)

Table B	**Sample and Reporting Schedule for Quarterly Sampling**
Sample discharge at least once for the months of:	Report is due:
January, February, March (1st Quarter)	April 28
April, May, June (2nd Quarter)	July 28
July, August, September (3rd Quarter)	October 28
October, November, December (4th Quarter)	January 28

STORMWATER REQUIREMENTS

1. The department may require sampling and reporting as a result of illegal discharges, compliance issues, complaint investigations, or evidence of off-site impacts from activities at the facility. If such an action is needed, the department will specify in writing the sampling requirements, including such information as location and extent. It is a violation of this permit to fail to comply with said written notification to sample.

2. When evaluating benchmarks, stormwater samples should be collected within the first 60 minutes of discharge occurring as a result of precipitation events of 0.1 inches or greater in order to achieve a representative sample and represent an appropriate evaluation of the best management practice. Samples should be collected from an active discharge and should not be taken from standing pools. Precipitation events include rainfall as well as run-off from the melting of frozen precipitation. Local weather stations and on-site gauges are two methods for obtaining local precipitation amounts.

3. This permit stipulates pollutant benchmarks applicable to the facility's discharge. The facility shall develop and implement a SWPPP as explained in more detail later in this section. Benchmark monitoring is primarily used by the facility to determine the overall effectiveness of the SWPPP and to assist the facility in knowing when additional corrective action may be necessary to protect water quality. If a sample exceeds a benchmark, the facility should review the SWPPP and Best Management Practices (BMPs) to determine what improvements or additional controls are needed to reduce that pollutant in the stormwater discharge(s). Failure to improve BMPs and failure to make tangible progress towards achieving a benchmark is a permit violation. If it is believed that a benchmark value is affected by legacy chemical use at the facility the benchmark should still be met. Facilities are encouraged to contact the department to formulate a plan for investigation and clean-up if legacy chemical use is suspected to be the cause of exceedances.

4. The results of all samples from a stormwater discharge that are collected and analyzed must be retained for a period of five (5) years and made available to the department upon request.

5. Benchmarks do not constitute direct numeric effluent limitations; therefore, not meeting a benchmark is not a permit violation. Failure to address a benchmark exceedance with improved BMPs is a permit violation. The 10-year, 24-hour rain event information may be found at: http://www.nws.noaa.gov/oh/hdsc/PF_documents/TechnicalPaper_No40.pdf or http://hdsc.nws.noaa.gov/hdsc/pfds/.

6. Co-located industrial facilities that are permitted separately may either choose to develop a separate stormwater pollution prevention plan (SWPPP) or may participate in a shared SWPPP. Co-located industrial facilities that develop a shared SWPPP must develop the SWPPP to meet all applicable requirements stated in this general permit in addition to the following:
   (a) The SWPPP must clearly list the name and permit number for each facility that participates in the shared SWPPP.
   (b) The SWPPP must clearly indicate which permittee is responsible for performing each shared element of the SWPPP. If the responsibility for performing an element is not described in the plan, then each permittee is entirely responsible for performing the element within the boundaries of its facility and in any common or shared areas.
   (c) A site map must be included in the SWPPP which clearly delineates the boundaries of each co-located facility and must clearly mark shared areas that are used by the facilities in common.
   (d) Co-located facilities may obtain exclusion based on no-exposure, if applicable.

STORMWATER REQUIREMENTS (continued)

7. If the BMPs used by the facility are not sufficient and a benchmark cannot be met, the facility may demonstrate to the department that a benchmark is not achievable. The demonstration must include rationale and supporting documentation and must show that a benchmark value cannot be achieved through the application of BMPs that represent available technology. Additionally, the demonstration must show that the benchmark is not feasible because no further pollutant reductions are technologically available or economically practicable in light of best industry practices. This demonstration must be presented to the department for review and approval.

8. If a facility has no discharge, that is acceptable for demonstrating that benchmarks are not exceeded.

9. When applying for coverage under this permit, the facility shall develop a SWPPP. The facility shall select, install, use, operate, and maintain the BMPs prescribed in the SWPPP in accordance with the concepts and methods described in the following document: *Developing Your Stormwater Pollution Prevention Plan, a Guide for Industrial Operators*, (number EPA 833-B-09-002) published by the United States Environmental Protection Agency (EPA) in June 2015 (www.epa.gov/sites/production/files/2015-11/documents/swppp_guide_industrial_2015.pdf).

10. The selection of control measures that prevent or reduce the discharge of pollutants in stormwater shall be specified in the SWPPP. The SWPPP shall identify the BMPs that are reasonable and effective, taking into account environmental impacts and costs. This analysis must document why no discharge or no exposure options are not feasible at the facility. This selection and documentation of appropriate control measures shall serve as an alternative analysis of technology and fulfill the requirements of Antidegradation [10 CSR 20-7.031(3) and 10 CSR 20-7.015(9)(A)5.]. Existing facilities with established SWPPPs and BMPs need not conduct an additional alternatives analysis unless new BMPs are established to address benchmark exceedances.

11. New Facilities:
    (a) For New facilities that are being issued coverage under this general permit for the first time, the SWPPP must be prepared within sixty (60) days and implemented within one hundred eighty (180) days of the permit issuance.
    (b) Throughout coverage under this permit, the facility must perform ongoing SWPPP review and revision to incorporate any site condition changes.
    (c) The SWPPP must be kept on-site or be made readily available to the department upon request. The SWPPP should not be sent to the department unless specifically requested.

12. Existing and Expanding Facilities:
    (a) The facility was required to prepare a SWPPP for coverage under a previous version of this permit. The facility must review and update the SWPPP to assure that the selected BMPs continue to be appropriate and ensure implementation of all provisions of this permit by permit issuance.
    (b) Throughout coverage under this permit, the facility must perform ongoing SWPPP review and revision to incorporate any site condition changes.
    (c) The SWPPP must be kept on-site or be made readily available to the department upon request. The SWPPP should not be sent to the department unless specifically requested.

13. For all facilities the SWPPP must include the following:
    (a) An assessment of all stormwater discharges associated with the facility, facility activities, and facility materials. This assessment must include a list of potential contaminants and an annual estimate of amounts that will be used in the described activities.
    (b) A listing of BMPs and a narrative explaining how the BMPs will be implemented to control and minimize the amount of potential contaminants that may enter stormwater.
    (c) A schedule for monthly site inspections and a brief written report, which includes the name of the inspector, the signature of the inspector, and the date. The inspections must include observation and analysis of BMP effectiveness, deficiencies, and corrective action that will be taken. Deficiencies must be corrected within seven (7) days and must be documented in the inspection report. The facility may submit a written notification to the department justifying additional time, if necessary, to complete corrective action. The purpose of the SWPPP and the BMPs listed therein is to prevent pollution per 10 CSR 20-2.010(56) to waters of the state. A deficiency of a BMP means it was not effective in preventing pollution of waters of the state or meeting benchmarks of this permit. Corrective action means the facility took steps to eliminate the deficiency. Inspection reports must be kept with the SWPPP and must be made available to the department upon request.
    (d) A provision for designating an individual to be responsible for environmental matters.
    (e) A detailed plan of action in the case of release or spill of a hazardous substance. A record of each reportable spill shall be retained with the Stormwater Pollution Prevention Plan (SWPPP) and made available to the department upon request. Records must include the type of material spilled, volume, date of spill, date clean-up was completed, clean-up method, and final disposal method. This is in addition to the Noncompliance Reporting requirement found in Standard Conditions Part I.

STORMWATER REQUIREMENTS (continued)

(f) A provision for providing training to all personnel involved in material handling, material storage, and housekeeping of areas having materials exposed to stormwater. Proof of training must be made available to the department upon request.
(g) A provision for evaluating BMPs and their ability to achieve compliance with benchmarks established in this permit.

14. The following minimum BMPs must be implemented at all facilities:
(a) Prevent the spillage or loss of fluids, oil, grease, fuel, etc. from vehicle maintenance, equipment cleaning and upkeep, or warehouse activities and thereby prevent the contamination of stormwater from these substances.
(b) Provide collection facilities on-site and arrange for proper disposal of waste products including, but not limited to, petroleum waste products, solid waste, de-icing/anti-icing products, and solvents.
(c) Store all paints, solvents, petroleum products, waste products in storage containers (such as drums, cans, or cartons) so that these materials, and the storage containers themselves (where possible), 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 as stormwater under this permit. Commingled water must be discharged as process wastewater and meet applicable effluent limitations. 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.
(d) Provide sediment and erosion control sufficient to prevent 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.
(e) Provide good housekeeping practices on-site to keep solid waste from entering waters of the state.

BENCHMARKS FOR STORMWATER DISCHARGES

There are no regular stormwater sampling requirements in this permit. However, benchmarks in Table C are to assist in the evaluation of BMPs at facilities according to their primary Standard Industrial Classification (SIC) code.

TABLE C	**BENCHMARKS FOR ALL FACILITIES**	
The facility is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The benchmarks shall become effective upon issuance of the permit and remain in effect until the expiration of the permit. Such stormwater discharges shall be controlled, and limited, by the facility as specified below:		
DISCHARGE PARAMETER(S)	UNITS	BENCHMARKS
Stormwater Discharges Clay Products Manufacturers SIC 3251-3259, 3261-3269		
Oil and Grease	mg/L	10
pH Units	SU	6.5 – 9.0
Total Suspended Solids	mg/L	100
Total Aluminum	mg/L	0.75
Stormwater Discharges Concrete and Gypsum Products SIC 3271-3275		
Oil and Grease	mg/L	10
pH Units	SU	6.5 – 9.0
Total Suspended Solids	mg/L	100
Total Iron	mg/L	4.0
Stormwater Discharges All Other Facilities		
Oil and Grease	mg/L	10
pH Units	SU	6.5 – 9.0
Total Suspended Solids	mg/L	100

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.

1. Water Quality Standards
   (a) To the extent required by law, discharges to waters of the state shall not cause a violation of Missouri Water Quality Standards (10 CSR 20-7.031), including both specific and general criteria.
   (b) General Criteria. The following water quality criteria shall be applicable to all waters of the state at all times, including mixing zones. No water contaminant, by itself or in combination with other substances, shall prevent the waters of the state from meeting the following conditions:
      (1) Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits, or prevent full maintenance of beneficial uses;
      (2) Waters shall be free from oil, scum, and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses;
      (3) Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor, or prevent full maintenance of beneficial uses;
      (4) Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal, or aquatic life;
      (5) There shall be no significant human health hazard from incidental contact with the water;
      (6) There shall be no acute toxicity to livestock or wildlife watering;
      (7) Waters shall be free from physical, chemical, or hydrologic changes that would impair the natural biological community;
      (8) Waters shall be free from used tires, car bodies, appliances, demolition debris, used vehicles or equipment, and solid waste as defined in Missouri's Solid Waste Law, Section 260.200, RSMo, except as the use of such materials is specifically permitted pursuant to Section 260.200-260.247, RSMo.

2. Changes in Discharges of Toxic Substances
   In addition to the reporting requirements under §122.41(1), all existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Director as soon as they know or have reason to believe:
   (a) That an activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following notification levels:
      (1) One hundred micrograms per liter (100 µg/L);
      (2) Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile;
      (3) Five hundred micrograms per liter (500 µg/L) for 2,4-dinitrophenol and for 2-methyl-4, 6-dinitrophenol;
      (4) One milligram per liter (1 mg/L) for antimony;
      (5) Five (5) times the maximum concentration value reported for the pollutant in the permit application in accordance with 40 CFR 122.21(g)(7); or
      (6) The notification level established by the department in accordance with 40 CFR 122.44(f).
   (b) That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
      (1) Five hundred micrograms per liter (500 µg/l);
      (2) One milligram per liter (1 mg/l) for antimony;
      (3) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with §122.21(g)(7); or
      (4) The level established by the Director in accordance with §122.44(f).

3. This permit may be reopened and modified or alternatively revoked and reissued to:
   (a) Comply with any applicable effluent standard or limitation issued or approved under Section 301(b)(2)(C) and (D), 304(b)(2)(A) and (B), and 307(a)(2) of the CWA, if the effluent standard or limitation issued or approved:
      (1) Contains different conditions or is otherwise more stringent than any effluent limitation in this permit; or
      (2) Controls any pollutant not limited in this permit.
   (b) Incorporate new or modified effluent limitations or other conditions, if the result of a wasteload allocation study, toxicity test, or other information indicates changes are necessary to assure compliance with Missouri Water Quality Standards (10 CSR 20-7.031).
   (c) Incorporate new or modified effluent limitations or other conditions if, as the result of a watershed analysis, an effluent limitation derived from a TMDL is developed for the receiving waters, which would then be included in a list of waters of the state not fully achieving Missouri Water Quality Standards.

   The permit, as modified or reissued under this paragraph, shall also contain any other requirements of the CWA then applicable.

PERMIT RENEWAL

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. If a facility submits a timely and complete application in accordance with 10 CSR 20-6.010(5)(B), (5)(C), and (10)(E)1, as well as § 644.051.10 RSMo 2015, 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 for a facility that is still in operation is a violation of the Missouri Clean Water Law. 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. 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.

PERMIT TRANSFER

This permit may not be transferred to a new owner in any fashion except by submitting an *Application for Transfer of Operating Permit* http://dnr.mo.gov/forms/780-1517-f.pdf signed by the seller and buyer of the facility along with the appropriate modification fee. In some cases, revocation and reissuance may be necessary. Standard Condition Part 1, Subsection D.7 applies.

PERMIT TERMINATION

The permittee shall apply for permit termination when activities covered by this permit have ceased and no significant materials (as defined by 10 CSR 20-6.200(1)(C)27.) remain on the property or if on the property, are stored in such a way as to have no potential for pollution. Proper closure of any storage structure is required prior to permit termination. In order to terminate this permit, the permittee shall notify the department's appropriate regional office by completing and submitting *Form H- Request for Termination of a General Permit* http://dnr.mo.gov/forms/780-1409-f.pdf. The regional office may require inspection of the premises prior to granting termination of a permit.

PUBLIC NOTICE OF GENERAL PERMIT COVERED FACILITIES

As required by 10 CSR 20-6.020, permits proposed to be issued to newly constructed limestone or other rock quarries must undergo public notification in accordance with 10 CSR 20-6.020 prior to issuance. Public Notice of reissuance is required only if the facility was found to be in significant noncompliance during the time of the previous permit [10 CSR 20-6.020(1)(C)]. All master general permits are required to undergo not less than 30 days public notice before the permit becomes effective.

Missouri Department of Natural Resources
FACT SHEET
FOR THE PURPOSE OF RENEWAL
OF
MO-G490000

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 CFR124.8, 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 a MSOP.

This Fact Sheet is for a:

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

Part I – Facility Information

Facility Type: Industrial
Facility SIC Code(s): 1411, 1422, 1429, 1446, 2951, 2952, 32xx

Facility Description:
Facilities that are eligible for coverage under this master general permit are limestone and other rock quarries, concrete plants, concrete product industries, asphalt production plants, asphalt product plants, industrial sand mining facilities, glass product industries, and clay product industries.

Summary of Changes:
Changes to this permit include:

- A reduction in setback distance from 1,000 feet to 500 feet for streams, lakes and reservoirs identified as critical habitat for endangered species and from 300 feet to 100 feet for wetlands and sinkholes. The major pollutants of concern are Total Suspended Solids and Settleable Solids. A thorough literature review has revealed that smaller, less restrictive setbacks are appropriate when sediment is the main pollutant of concern. Based on the absence of toxic chemicals from this type of discharge and using best professional judgement, staff determined that the setbacks proposed will maintain protection of those sensitive resources and allow sufficient filtering of sediment before reaching those resources. For more information on the lowered setback limits, see Anti-Backsliding on page 3 of the Fact Sheet. Additionally, this permit removes a setback from losing streams given the permit contains conditions and requirements protective of water quality in losing streams as well as any waters lost to subsurface waters in losing settings. The Missouri Water Quality Standards do not contain differing standards for losing streams as it pertains to the pollutants of concern associated with the facilities discharging under this general permit. Technology based requirements for the discharges authorized under this general do not differ when discharging to a losing stream versus a gaining stream.
- Industrial Sand Mining (SIC 1446) permitting has been split between this MO-G49 permit and the MO-G50 according to activities carried out by these facilities. Industrial sand facilities engaged in activities similar to construction sand and gravel facilities (i.e., dredging and/or excavation of unconsolidated material in open pit mining) will be covered under MO-G50. Industrial sand and fracturing sand facilities that are engaged in activities carried out by rock quarry operations (i.e., underground mining, grinding, pulverizing and/or blasting) will be covered under MO-G49.
- This permit also establishes the limit of 45 mg/L as a daily maximum and 25 mg/L as a monthly average for TSS for industrial sand facilities. These limits apply to both process wastewater and mine dewatering discharges associated with SIC Code 1446. For more discussion of the new effluent limitations, see Part IV – Effluent Limits Determinations beginning on page 6 of this Fact Sheet.

- New limits for Total Suspended Solids for facilities operating as Asphalt Paving and Roofing Emulsion Production facilities (a subset of SIC 2951) have been added in accordance with EPA effluent limit guidelines in accordance with 40 CFR 443.13. For more discussion on Asphalt sectors, see clarification section below.
- The benchmark for Settleable Solids has been removed due to the fleeting nature of stormwater discharges.
- New benchmarks for Total Aluminum (required for SIC Codes 3251-3259, 3261-3269) and Total Iron (required for SIC Codes 3271-3275) have been added. More information on the benchmark changes may be found under Part V: Benchmarks under the Derivation and Discussion section on page 6 of the Fact Sheet.
- Minor changes have been made to the organization of the permit including updated language and requirements to bring it into line with other similar operating permits.
- Coverage by this permit does not supersede nor remove liability for compliance with city, county or other local ordinances. It should be noted that many municipalities and MS4 districts have their own prescribed BMPs for cement truck washout water which generally consist of collecting and retaining washout water, with associated solids, in leak-proof containers and recycling the water and solids for other uses. It is the responsibility of the permittee to familiarize themselves with the specific local requirements.

Clarification:

- Outstanding National Resource Waters (ONRW) or Outstanding State Resource Waters (OSRW) - At permit renewal, the department may examine monitoring reports submitted by a facility located within the watershed of an ONRW or an OSRW to determine if this permit is still appropriate for the facility. If degradation of water quality has occurred, the department may require the facility to begin operating as a no-discharge facility under this permit or to apply for a site-specific permit.
- SIC 2951, NAICS Code 324121: Asphalt Paving and Roofing Emulsion facilities describes companies employed in manufacturing asphalt and tar paving mixtures and paving blocks made of asphalt mixed with other materials. The main asphalt paving product is hot mix asphalt, in which asphalt cement is used to bind a mixture of stone, sand and gravel. The subset of SIC 2951 identified in Table A applies to facilities engages in the actual refining and manufacturing (production) of asphalt emulsion.
- SIC 2952, NAICS Code 324122: Asphalt Felts and Coatings is comprised of establishments that manufacture asphalt in roll or shingle form and roof cement or coatings. This includes asphalt brick siding, tar coating compounds, roofing fabrics, pitch, shingles and tarpaper.

Part II – Receiving Stream Information

APPLICABLE DESIGNATIONS OF WATERS OF THE STATE:

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

Missouri or Mississippi River [10 CSR 20-7.015(2)]: ☒
Lake or Reservoir [10 CSR 20-7.015(3)]: ☒
Losing [10 CSR 20-7.015(4)]: ☒
Metropolitan No-Discharge [10 CSR 20-7.015(5)]: ☐
Special Stream [10 CSR 20-7.015(6)]: ☒
Subsurface Water [10 CSR 20-7.015(7)]: ☒
All Other Waters [10 CSR 20-7.015(8)]: ☒

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

RECEIVING STREAM MONITORING REQUIREMENTS:

☒ Not Applicable: There are no receiving water monitoring requirements recommended at this time.

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

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

A TMDL is a calculation of the maximum amount of a given pollutant that a body of water can absorb before its water quality is affected. If a water body is determined to be impaired as listed on the 303(d) list, then a watershed management plan will be developed that shall include the TMDL calculation. 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. For facilities requesting a new general permit that are located within the watershed of an impaired water as designated on the 305(b) Report will be evaluated on a case-by-case basis for inclusion under this permit.

☒ Conditional: The department will review all discharges to 303(d) listed streams on a case by case basis.

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

☒ Not Applicable: All effluent limits and benchmarks in this operating permit are at least as protective as those previously established.
To address the decrease in setback distances, a literature review was conducted to assess the effectiveness of buffer widths in relation to sediment removal. In an early literature review on grass buffers in agricultural settings, Dosskey (2001) concluded that 40 -100% of sediment entering from cultivated fields was removed using buffer strips 0.5 to 20 meters. Liu *et al*. (2008) conducted an analysis of 85 estimates of sediment removal by vegetated buffers. They found that sediment removal efficiency (E_S, the percentage of inflowing sediment trapped within a buffer) increased with buffer width according to the relationship:
$E_S = 13.4 \log_e (w)+56.9$ in which w (m) is buffer width.
This equation predicts that E_S increases from 78% for a 5 meter wide buffer to 88% and 97% at widths of 10 meters and 20 meters, respectively. Yaun *et al*. (2009; 93 estimates) and Zhang *et al*. (2010; 81 estimates) garnered similar results to Liu *et al*. Both concluded that the additional benefits of a buffer wider than 10 meters may be limited in terms of cost effectiveness. Additional literature reviews reveal that buffer benefits in extreme conditions reach maximum effectiveness at around 200 feet. As allowed under CWA §402 (o)(2)(B)(i), in light of the new information provided in these studies, the department has concluded that where sedimentation is the primary pollutant a setback distance of 100 feet is appropriate and protective for most applications. In addition, the department has determined that a buffer width of 500 feet for sensitive resources is more than adequate to be protective of water quality in this situation.

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. The department has determined that the best avenue forward for implementing the Antidegradation requirements into general permits is by requiring the appropriate development and maintenance of a SWPPP. The SWPPP must identify all Best Management Practices (BMPs) that are reasonable and effective, taking into account environmental impacts and costs. This analysis must document why no discharge or no exposure options are not feasible at the facility. This selection and documentation of appropriate control measures will then serve as the analysis of alternatives and fulfill the requirements of the Antidegradation Rule and Implementation Procedure 10 CSR 20-7.031(3) and 10 CSR 20-7.015(9)(A)5.

Any facility seeking coverage under this permit, which undergoes expansion or discharges a new pollutant of concern, must update their SWPPP and select new BMPs that are reasonable and cost effective. New facilities seeking coverage under this permit are required to develop a SWPPP that includes this analysis and documentation of appropriate BMPs. Renewal of coverage for a facility requires a review of the SWPPP to assure that the selected BMPs continue to be appropriate.

☒ Applicable: The pollutants of concern in this permit are changes in pH, total suspended sediment, oil and grease, and settleable solids. Iron and aluminum benchmarks have been added for stormwater for certain industrial sectors. Compliance with the effluent limitations established in this permit for the protection of General Criteria, along with the evaluation and implementation of BMPs as documented in the SWPPP, meets the requirements of Missouri's Antidegradation Review [10 CSR 20-7.031(3), 10 CSR 20-7.031 Table A, and 10 CSR 20-7.015(9)(A)5].

BENCHMARKS:
When a permitted feature or outfall consists of only stormwater, a benchmark may be implemented at the discretion of the permit writer. Benchmarks give the facility a means to measure the efficacy of BMPs and to replace and update stormwater control measures. Benchmark concentrations are not effluent limitations. A benchmark exceedance, therefore, is not a permit violation; however, failure to address a benchmark violation with improved BMPs is a permit violation. The 10-year, 24-hour rain event information may be found at: http://www.nws.noaa.gov/oh/hdsc/PF_documents/Atlas14_Volume8.pdf.

Benchmark data is used to determine the overall effectiveness of control measures and to assist the permittee in knowing when additional corrective actions may be necessary to comply with the limitations of the permit. This assures that water quality is protected without placing undue restriction on small businesses.

If data becomes available that indicates existing water quality will be protected by alternative benchmarks or by adding sampling frequency specific to this industry, the department will propose to incorporate those benchmarks into this general operating permit as part of a general operating permit modification. Such data must be approved by the department as appropriate and representative before it can be considered.

☒ Applicable; this facility has stormwater-only outfalls with benchmark constraints. The benchmarks listed are consistently achieved in stormwater discharges by a variety of other industries with SWPPPs and is deemed protective of instream water quality and aquatic life.

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.]. Newly permitted facilities require public notice before the permit is issued.

☒ Applicable: Issuance of coverage to individual newly constructed limestone or other rock quarries under this permit for the first time shall be placed on Public Notice for thirty (30) days in accordance with 10 CSR 20-6.020(1)(B) & (C)2.

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.

SPILL REPORTING:
Per 10 CSR 24-3.010, 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

STORMWATER POLLUTION PREVENTION PLAN (SWPPP):
In accordance with 40 CFR 122.44(k) Best Management Practices (BMPs) must be used to control or abate the discharge of pollutants when: (1) Authorized under section 304(e) of the Clean Water Act (CWA) for the control of toxic pollutants and hazardous substances from ancillary industrial activities; (2) Authorized under section 402(p) of the CWA for the control of stormwater discharges; (3) Numeric effluent limitations are infeasible; or (4) The practices are reasonably necessary to achieve effluent limitations and standards or to carry out the purposes and intent of the CWA. In accordance with the EPA's Developing Your Stormwater Pollution Prevention Plan, A Guide for Industrial Operators, (Document number EPA 833-B-09-002) [published by the United States Environmental Protection Agency (USEPA) in February 2009], BMPs are measures or practices used to reduce the amount of pollution entering waters of the state from a permitted facility. BMPs may take the form of a process, activity, or physical structure. Additionally in accordance with the Stormwater Management, a SWPPP is a series of steps and activities to (1) identify sources of pollution or contamination, and (2) select and carry out actions which prevent or control the pollution of storm water discharges.

A SWPPP must be prepared by the permittee if the SIC code is found in 40 CFR 122.26(b)(14) and/or 10 CSR 20-6.200(2). A SWPPP may be required of other facilities where stormwater has been identified as needing better management. The purpose of a SWPPP is to comply with all applicable stormwater regulations by creating an adaptive management plan to control and mitigate pollution of stormwater runoff. Developing a SWPPP provides opportunities to employ appropriate BMPs to minimize the risk of pollutants being discharged during storm events. The following paragraph outlines the general steps the permittee should take to determine which BMPs will work to achieve the benchmark values or limits in the permit. This section is not intended to be all encompassing or restrict the use of any physical BMP or operational and maintenance procedure that will assist in pollution control. Additional steps or revisions to the SWPPP may be required to meet the requirements of the permit.

Areas which should be included in the SWPPP are identified in 40 CFR 122.26(b)(14). Once the potential sources of stormwater pollution have been identified, a plan should be formulated to best control the amount of pollutant being released and discharged by each activity or source. This should include, but is not limited to, minimizing exposure to stormwater, good housekeeping

measures, proper facility and equipment maintenance, spill prevention and response, vehicle traffic control, and proper materials handling. Once a plan has been developed the facility will employ the control measures that have been determined to be adequate to achieve the benchmark values discussed above. The facility will evaluate and inspect the BMPs to ensure they are working properly and re-evaluate any BMP not achieving compliance with permitting requirements. For example, if sample results from an outfall show values of TSS above the benchmark value, the BMP being employed is deficient in controlling stormwater pollution. Corrective action should be taken to repair, improve, or replace the failing BMP. This internal evaluation should be done at least once per month but should be conducted more frequently if BMPs continue to fail. If failures do occur, continue this trial and error process until appropriate BMPs have been established.

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

☒ Applicable: A SWPPP shall be developed and implemented for each site and shall incorporate required practices identified by the department, incorporate erosion control practices specific to site conditions, and provide for maintenance and adherence to the plan.

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.

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 Section 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 with, or through synergistic responses when mixed with receiving stream water.

☒ Not Applicable: At this time, the facility is not required to conduct a WET test.

Part IV – Effluent Limits Determination

Effluent limitations derived and established in the below Effluent Limitations Table are based on current operations of the facility. Future permit action due to facility modification may contain new permit terms and conditions that supersede the terms and conditions, including effluent limitations, of this permit.

EFFLUENT LIMITATIONS FOR TABLE A:

PARAMETER	UNIT	BASIS FOR LIMITS	DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MODIFIED	PREVIOUS PERMIT LIMITATIONS
FLOW	gpd	1	*		*	NO	
SETTLEABLE SOLIDS	mL/L/hr	9	1.5		1.0	NO	
OIL & GREASE	mg/L	1, 2	15		10	NO	
pH UNITS	SU	1, 2	6.5-9.0		6.5-9.0	NO	
TOTAL SUSPENDED SOLIDS**	mg/L	1	23.0		15.0	YES	70/70
TOTAL SUSPENDED SOLIDS***	mg/L	1	70		70	NO	
TOTAL SUSPENDED SOLIDS****	mg/L	1	45		25	YES	70/70

* Monitoring requirement only.
** Requirement for asphalt emulsion production facilities subset of SIC Code 2951 only
*** SIC Codes 1411, 1422, 1429 and SIC 2951- except asphalt emulsion production facilities
****SIC Code 1446

Basis for Limitations Codes:

1. State or Federal Regulation/Law
2. Water Quality Standard
3. Water Quality Based Effluent Limitation
4. Lagoon Policy
5. Ammonia Policy
6. Antidegradation Review
7. Antidegradation Policy
8. Water Quality Model
9. Best Professional Judgment
10. TMDL or Permit in lieu of TMDL
11. WET Test Policy
12. Dissolved Oxygen Policy

DERIVATION AND DISCUSSION OF LIMITATIONS:

The CWA requires that all NPDES discharges to Waters of the U.S. contain technology-based or water-quality based effluent limitations, whichever is more stringent. When the EPA has not established industry specific technology based Effluent Limitation Guidelines, Missouri uses EPA's *Technical Support Document for Water Quality Based Toxics Control* (TSD) method for calculating site-specific water-quality based effluent limitations. It is the department's policy to consult the EPA's *Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity* (MSGP) or other applicable documents or guidance.

- **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 facility is unable to obtain effluent flow, then it is the responsibility of the facility to inform the department, which may require the submittal of a permit modification.
- **Settleable Solids:** Settleable solids are a common constituent of discharges from the types of industrial activities carried out by the facilities covered under this permit. Effluent limitations are necessary to protect narrative criteria, 10 CSR 20-7.031(4). This limit is achievable based on the technology available such as settling tanks or basins. The existing effluent limitations are deemed protective and are carried over from the previous permit.
- **Oil and Grease:** This permit has water quality based effluent limitations of 15 mg/L daily maximum and 10 mg/L monthly average for the protection of aquatic life per 10 CSR 20-7.031. Oil and Grease is a conventional pollutant, in accordance with 10 CSR 20-7.031 Table A: Criteria for Designated Uses; 10 mg/L monthly average (chronic standard). The daily maximum was calculated using the Technical Support Document for Water Quality-Based Toxics Control (EPA/505/2-90-001). Section 5.4.2 indicates the waste load allocation can be set to the chronic standard. When the chronic standard is multiplied by 1.5, the daily maximum can be calculated. The existing effluent limitations are carried over from the previous permit.
- **pH:** pH is not to be averaged. The federal effluent limitations contain technology standards of 6.0-9.0 SU for pH in both construction sand and gravel and industrial sand wastewater discharges. The state water quality standard for pH is 6.5-9.0 SU. In accordance with the Clean Water Act section 301(b)(1)(C), the more stringent standard must be applied to the permit. The technology standard found in the federal ELG is not protective of state water quality standards. Therefore, the state water quality standard 6.5-9.0 SU will be carried over from the previous permit and implemented in this permit.

- **Total Suspended Solids:** Effluent limitations for each type of receiving water body were set according to 10 CSR 20-70.015(2)-(8) and are considered necessary for protection of Water Quality Standards 10 CSR 20-7.031(4). The department has retained the previous permit limits of 70 mg/L as a daily maximum and 70 mg/L as a monthly average in this permit for all SIC codes other than the asphalt paving and roofing emulsion production subset of SIC 2951 and industrial sand facilities (SIC 1446) as defined in the permit. For Asphalt Paving and Roofing Emulsion Production Facilities (subset of SIC 2951) the EPA Effluent Limit Guidelines set forth in 40 CFR 436 set the permit limits at 23.0 mg/L as a daily maximum and 15.0 mg/L for the 30 day average. This is a technology based limit and is deemed to be achievable using best available technology. For SIC code 1446, 40 CFR 436.42, establishes the limit of 45 mg/L as a daily maximum and 25 mg/L as a monthly average for TSS in this permit. These limits apply to both process wastewater and mine dewatering discharges associated with SIC Code 1446. The department has determined that these values are protective of state general criteria.

SAMPLING FREQUENCY:
Sampling frequency is established in accordance with department policy. Effluent limitations are expressed in a daily maximum and a monthly average (except pH, which is not to be averaged). Quarterly monitoring is required unless allowance is made for annual monitoring by the individual permit. 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, with the exception of pH. If no discharges occur during a sampling period, report as "no discharge."

Part V—Benchmarks

BENCHMARKS FOR TABLES C (QUARTERLY) AND E (ANNUAL):

PARAMETER	UNIT	BASIS FOR BENCHMARK	BENCHMARK	MODIFIED	PREVIOUS PERMIT BENCHMARKS
OIL & GREASE	mg/L	9	10	NO	15/10
pH	SU	1	6.5 - 9.0	NO	6.5 – 9.0
TOTAL SUSPENDED SOLIDS	mg/L	1	100	NO	100
TOTAL ALUMINUM*	mg/L	1, 2	0.75	YES	NO BENCHMARK
TOTAL IRON**	mg/L	9	4.0	YES	NO BENCHMARK

* Required for SIC Codes 3251-3259, 3261-3269 **Required for SIC Codes 3271-3275 Basis for Limitation Codes:

1. State or Federal Regulation/Law
2. Water Quality Standard
3. Water Quality Based Effluent Limitations
4. Lagoon Policy
5. Ammonia Policy
6. Antidegradation Review
7. Antidegradation Policy
8. Water Quality Model
9. Best Professional Judgement
10. TMDL or Permit in Lieu of TMDL
11. WET Test Policy
12. Dissolved Oxygen Policy

DERIVATION AND DISCUSSION OF BENCHMARKS
The CWA requires that all NPDES discharges to Waters of the U.S. contain technology-based or water-quality based effluent limitations, whichever is more stringent. When the EPA has not established industry specific technology based Effluent Limitation Guidelines, Missouri uses EPA's *Technical Support Document for Water Quality Based Toxics Control* (TSD) method for calculating site-specific water-quality based effluent limitations. The TSD method is based on assumptions and statistics that apply to continuous discharges, not intermittent stormwater discharges and thus do not apply to this permit.

- **Oil and Grease:** This permit has a benchmark of 10 mg/L, which has been determined to be a feasible and affordable Technology Based Effluent Limit. This value is consistently achieved in stormwater discharges by a variety of other industries with SWPPPs. This value is carried over from the previous permit.
- **pH:** The range is 6.5 – 9.0 Standard pH Units (SU) which has been determined to be a feasible and affordable Technology Based Effluent Limit. pH is not to be averaged. This value is carried over from the previous permit.
- **Total Suspended Solids:** This permit has a benchmark of 100 mg/L, which has been determined to be feasible, affordable Technology Based Effluent Limit. This value is consistently achieved in stormwater discharges by a variety of other industries with SWPPPs.
- **Total Aluminum:** This permit establishes a new benchmark of 0.75 mg/L for Total Aluminum for facilities operating with the primary SIC codes of 3251-3259, 3261-3269. This value has been determined to be a feasible and affordable Technology Based Effluent Limit.
- **Total Iron:** This permit establishes a new benchmark of 4.0 mg/L for Total Iron for facilities with the primary SIC codes of 3271- 3275. This value has been determined to be a feasible and affordable Technology Based Effluent Limit.

If data becomes available that indicates existing water quality will be protected by alternative benchmarks specific to this industry, the department will propose to incorporate those benchmarks into this permit as part of a permit modification. Such data must be approved by the department as appropriate and representative before it can be considered.

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 NOTICE:
The department shall give public notice that a draft permit has been prepared and its issuance is pending. Additionally, public notice will be issued if a public hearing is to be held because of a significant degree of interest 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 of a new or reissued Missouri State Operating Permit. The public comment period is a length of time not less than thirty (30) days following the date of the public notice, during which interested persons may submit written comments about the proposed permit.

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

☒ The Public Notice period for this permit was from February 10, 2017 to March 13, 2017.

DATE OF FACT SHEET: APRIL 5, 2017

COMPLETED BY:

SUSAN HIGGINS
ENVIRONMENTAL SPECIALIST III
MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM
OPERATING PERMITS SECTION
573-526-1002
Susan.Higgins@dnr.mo.gov