

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

Permit No. MO-G490000

Owner:  
Address:

Continuing Authority:  
Address:

Facility Name:  
Facility Address:

Legal Description:  
UTM Coordinates:

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

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

**FACILITY DESCRIPTION**

All Outfalls (As listed in the permit application)  
SIC #1422, 295x, 32xx  
Storm water and other specified discharges from limestone and other rock quarries, concrete, glass, and asphalt industries.

This permit authorizes only wastewater discharges under the Missouri Clean Water Law and the National Pollutant Discharge Elimination System; it does not apply to other regulated areas. This permit may be appealed in accordance with Section 644.051.6 of the Law.

October 6, 2011  
Effective Date

Sara Parker Pauley, Director, Department of Natural Resources

October 5, 2016  
Expiration Date

John Madras, Director, Water Protection Program

<b>A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS</b>					PAGE NUMBER 2 of 8	
					PERMIT NUMBER MO-G490000	
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 permittee as specified below:						
OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
<u>Non-storm Water Discharges</u> (Note 1)						
Flow	gpd	*		*	once/quarter**	24 hour estimate
Total Suspended Solids	mg/L	70		70	once/quarter**	grab
Settleable Solids	mL/L/hr	1.5		1.0	once/quarter**	grab
Oil and Grease	mg/L	15		10	once/quarter**	grab
pH – units	SU	***		***	once/quarter**	grab
<u>Storm Water Discharges</u>						
Flow	mgd	*		*	once/quarter **	24 hour estimate
Storm Water Sampling Report** (see Sampling Requirements)		*		*	once/quarter **	grab
MONITORING REPORTS SHALL BE SUBMITTED <u>QUARTERLY</u> ; THE FIRST REPORT IS DUE <u>January 28, 2012</u> . THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						
<b>B. STANDARD CONDITIONS</b>						
IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED <u>Part I</u> STANDARD CONDITIONS DATED <u>October 1, 1980 and August 15, 1994</u> , AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.						

MO 780-0010 (8/91)

**A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)**

\* Monitoring requirement only.

\*\* See table below 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

\*\*\* 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.

Note 1 – Non-storm water discharges shall include wastewater generated from process-related activities such as truck washing, and all dry-weather discharges from processing plants and mine pit dewatering.

APPLICABILITY

1. This permit authorizes the following discharges from limestone and other rock quarries, concrete plants, concrete products industries, asphalt plants, glass products industries, and clay products industries (excluding clay pits and mining which are covered under MO-G84 permit) with primary Standard Industrial Code (SIC):

1422	CRUSHED AND BROKEN LIMESTONE
295x	ASPHALT PAVING
32xx	STONE, CLAY, GLASS, AND CONCRETE PRODUCTS

- (a) Storm water runoff  
(b) Quarry pit or mine de-watering  
(c) Vehicle and equipment wash water without added detergents, acids, caustics, solvents, or other additives.
2. This general operating permit **does not authorize** storm or non storm water discharges:
- (a) Within 300 feet of reservoirs or lakes used for public drinking water supplies (class L1)<sup>1</sup> or major reservoirs (class L2)<sup>1</sup>,  
(b) Within 1,000 feet of biocriteria reference locations<sup>1</sup> or streams, lakes, or reservoirs identified as critical habitat for endangered species,  
(c) Within 300 feet of wetlands or waters that have been identified as losing streams<sup>1</sup>,  
(d) Mining operations other than limestone and other rock quarries,  
(e) Quarries producing any products other than crushed rock, dimension rock, lime, asphalt, or concrete,  
(f) Sand and gravel washing operations (covered by MO-G50),  
(g) Clay pits or clay mining operations (covered by MO-G84), or  
(h) Any discharges other than those described under item 1 of this section
- <sup>1</sup> 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](http://www.sos.mo.gov), or may be purchased from the Department of Natural Resources by calling the Water Protection Program.
3. Vehicle and equipment washing with detergents, acids, caustics, solvents, or other additives is authorized 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. Wash water containing hazardous wastes must be disposed of in accordance with applicable hazardous waste regulations.
4. This permit does not authorize the mining activity, only water discharges that result from the activity. A permit authorizing mining activities must be obtained from the Land Reclamation Program.
5. This permit does not apply to facilities that would discharge within the watershed of Outstanding National Scenic and State Resource Waters and drainages thereto, as defined in 10 CSR 20-7.015(6).
6. Holders of current individual, site-specific permits who desire to apply for inclusion under this general permit should contact the department for application requirements and procedures.
7. The director may require any permittee authorized by a general permit to apply for and obtain an individual 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 Water Quality Management Plan (or Total Maximum Daily Load) containing requirements applicable to these point sources is approved.
8. If at any time, the owner of the permitted facility should desire to apply for an individual permit, the owner may do so.
9. This permit may be transferred to a new owner by submitting an "Application for Transfer of Operating Permit" signed by the seller and buyer of the facility, along with the appropriate modification fee.
10. Concrete and/or asphalt plants contained within the boundaries of a quarry may be included under one permit.

11. Facilities that are located within the watershed of the 303(d) listing of impaired waters will need to be evaluated, on a case-by-case basis, for inclusion under this general permit. Facilities that are found to be discharging the listed pollutant(s) of concern may be required to obtain a site-specific permit.
12. This permit does not authorize discharges of waste material, such as concrete and water from washing 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 on page one of this permit. Waste concrete from delivery trucks shall be washed into a dedicated 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, is prohibited by State Law and Regulations (644.051 RSMo, 10 CSR 20-6.010).

**SAMPLING REQUIREMENTS AND BENCHMARKS**

1. Sampling and analysis of storm water discharges for Total Suspended Solids, Settleable Solids, pH and Oil & Grease shall occur quarterly. The department may also 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. Storm water samples shall be collected within the first 60 minutes of discharge occurring as a result of precipitation events of 0.1 inches or greater. Precipitation events include rainfall as well as run-off from the melting of frozen precipitation.
3. This permit stipulates pollutant Benchmarks applicable to your discharge. The Benchmarks do not constitute direct numeric effluent limitations; a benchmark exceedance alone, therefore, is not a permit violation. Benchmark monitoring data are primarily for your use (and department's use as described in #1, above) to determine the overall effectiveness of your SWPPP and to assist you in knowing when additional corrective action may be necessary to protect water quality. If a sample exceeds a benchmark concentration you must review your SWPPP and your BMPs to determine what improvements or additional controls are needed to reduce that pollutant in your storm water discharge(s). Failure to improve BMPs and achieve compliance with the Benchmarks is a permit violation. Exceedances believed to be the result of legacy chemical uses at the facility are not exempted from this requirement. Permittees are encouraged to contact the Department to formulate a plan for investigation and clean-up if legacy chemical uses are suspected to be the cause of exceedances.
4. The following Benchmarks are considered necessary to protect water quality. The BMPs at the facility should be designed to meet these benchmarks during rainfall events up to the 1-in-10 year, 24 hour rain event.

**Benchmarks Table**

<b>Parameter</b>	<b>Benchmark</b>
Total Suspended Solids	100 mg/L
pH – Units	6.5 – 9.0 Standard Units
Oil & Grease	10 mg/L
Settleable Solids	1.0 mL/L/hr

5. Storm water samples shall be collected prior to or at the property boundary or before the discharge enters waters of the state on the property.
6. 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.
7. At no time shall any discharge result in a violation of Water Quality Standards (as described in Other Requirements #13). A facility will be required to obtain a site specific permit if the department determines that a site specific permit is necessary to protect water quality.
8. Non-storm water discharges are those caused by something other than storm water 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 under Applicability #3 above.
9. If a discharge does not occur during the quarter, the facility shall submit a report of no discharge to the department.

SAMPLING REQUIREMENTS AND BENCHMARKS cont.

10. If during the life of this permit, a limestone or other rock quarry becomes inactive, a stay of the quarterly storm water sampling requirement may occur provided the following requirements are met.
- The facility meets the definition of “inactive.” **Inactive Facility:** A facility that does not produce product; conduct any operations required for production of product, such as site preparation, stripping, blasting, or loading/unloading of unprocessed materials; construct or deconstruct a plant; or, transfer purchased product during the quarter. A facility that does no more than maintain stockpiled rock and conduct routine maintenance of BMPs may be considered inactive.
  - Notification of a facility becoming “inactive” shall be made in writing to the Department’s Regional Office at least 15 days prior to the facility becoming inactive.
  - The facility shall have met all requirements of this general permit prior to becoming “inactive.”
  - The facility shall continue to meet the quarterly storm water reporting requirements of this permit. This reporting requirement shall state that sampling has not occurred because the facility is “inactive.”
  - Quarterly storm water sampling requirements shall resume immediately upon the site being reactivated.
  - The facility shall notify the Department’s Regional Office at least 15 days prior to reactivation.
  - SWPPP requirements shall be met at all times as expressed in this permit.
  - BMPs must be actively maintained and documented in the facility SWPPP.
  - A deficiency of a BMP noted via the SWPPP inspection requirements, will require the site to be reactivated thus resuming quarterly storm water sampling.

OTHER REQUIREMENTS

Note: These requirements do not supersede nor remove liability for compliance with county and other local ordinances.

1. **For New or Expanding Facilities:** A requirement of this general operating permit is the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP). New facilities applying for coverage under this general operating permit, or those seeking to expand, must develop a SWPPP document to be implemented upon permit issuance. Expansion, for the purpose of this permit, would be the addition of new outfalls for discharge at the facility. The addition of outfalls also requires modification of the permit. The SWPPP shall include an Alternative Analysis (AA) evaluation of the Best Management Practices (BMPs). This AA is a structured evaluation of BMPs that are reasonable and cost effective. The AA evaluation should include practices that are designed to be: 1) non-degrading; 2) less degrading; or 3) degrading water quality. The chosen BMP will be the most reasonable and cost effective while ensuring that the highest statutory and regulatory requirements are achieved, and the highest quality water attainable for the facility is discharged. The AA evaluation must demonstrate why “no discharge” or “no exposure” is not a feasible alternative at the facility. This structured analysis of BMPs serves as the Antidegradation review, fulfilling the requirements of 10 CSR 20-7.031(2).

For both new and expanding facilities, the BMP chosen through the AA must be implemented and maintained at the facility. Failure to implement and maintain the chosen alternative is a general operating permit violation.

The Pollutants of Concern for this general operating permit are listed in the Benchmark Table on Page 4 of this general operating permit. A demonstration may be made that the expansion will not result in an increase in the discharge of Pollutants of Concern.

The SWPPP must include the following:

- An assessment of all storm water discharges associated with the facility, including any materials stored onsite in sealed containers, deicing of surfaces, loading and unloading areas, etc. This must include a list of potential contaminants and an annual estimate of amounts that will be used in the described activities;
- A listing of BMPs and a narrative explaining how BMPs will be implemented to control and minimize the amount of potential contaminants that may enter storm water;
- A schedule for implementing the BMPs, if necessary;
- The SWPPP must include a schedule for monthly site inspections and a brief written report. The inspections must include observation and evaluation of BMP effectiveness, deficiencies, and corrective measures that will be taken. The Department must be notified within fifteen (15) days by letter of any corrections of deficiencies. Deficiencies requiring minor repairs must be corrected within seven (7) days. Deficiency corrective actions that require additional time or installation of a treatment device shall be detailed in the written notification which shall include a timeline for the corrective actions. Installation of a treatment device, such as an oil water separator, may require a construction permit. Routine maintenance of BMPs shall be documented in the monthly inspection reports. Notification of BMP routine maintenance is not required. Inspection reports must be kept on site with the SWPPP. These must be made available to DNR personnel upon request.
- A provision for designating an individual to be responsible for environmental matters; and

OTHER REQUIREMENTS (continued)

- (f) A provision for providing training to all personnel involved in material handling and storage, and housekeeping of areas having materials exposed to storm water. This may be satisfied by in-house training provided by facility staff. Proof of training shall be submitted to the Department upon request.
2. **For Existing Facilities:** The previous permit requirements related to storm water BMPs are similar to those included in the SWPPP requirements of this permit, existing facilities are required to develop a SWPPP document to be implemented upon permit issuance, of which must be continually maintained and implemented. The SWPPP must be kept onsite and should not be sent to the Department unless specifically requested. Permittees 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, (Document number EPA 833-B-09-002) published by the United States Environmental Protection Agency (USEPA) in February 2009.
- The SWPPP must include the following:
- (a) An assessment of all storm water discharges associated with the facility, including any materials stored onsite in sealed containers, deicing of surfaces, loading and unloading areas, etc. This 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 BMPs will be implemented to control and minimize the amount of potential contaminants that may enter storm water.
  - (c) A schedule for implementing the BMPs, if necessary.
  - (d) The SWPPP must include a schedule for monthly site inspections and a brief written report. The inspections must include observation and evaluation of BMP effectiveness, deficiencies, and corrective measures that will be taken. The Department must be notified within fifteen (15) days by letter of any corrections of deficiencies. Deficiencies requiring minor repairs must be corrected within seven (7) days. Deficiency corrective actions that require additional time or installation of a treatment device shall be detailed in the written notification which shall include a timeline for the corrective actions. Installation of a treatment device, such as an oil water separator, may require a construction permit. Routine maintenance of BMPs shall be documented in the monthly inspection reports. Notification of BMP routine maintenance is not required. Inspection reports must be kept on site with the SWPPP. These must be made available to DNR personnel upon request.
  - (e) A provision for designating an individual to be responsible for environmental matters.
  - (f) A provision for providing training to all personnel involved in material handling and storage, and housekeeping of areas having materials exposed to storm water. This may be satisfied by in-house training provided by facility staff. Proof of training shall be submitted upon request of the Department.
3. The purpose of the SWPPP and the BMPs listed therein is to prevent pollutants from entering waters of the state. A deficiency of a BMP means it was not effective in preventing pollution [10 CSR20-2.010(56)] of waters of the state, or failed to achieve compliance with benchmarks. Corrective action means the facility took steps to eliminate the deficiency.
4. The following are minimum BMPs that must be implemented at all facilities:
- (a) Collection facilities shall be provided onsite, and arrangements made for proper disposal of waste products which may be exposed to storm water.
  - (b) Permittee shall provide sediment and erosion control sufficient to prevent pollution to waters of the state and comply with the effluent limitations and other permit conditions. This may require the construction of properly designed sediment basins or other treatment structures. The permittee shall not allow mined material or overburden to enter waters of the state as necessary to meet effluent limitations and benchmark provided herein.
  - (c) All fueling facilities present onsite shall adhere to applicable federal and state regulations concerning underground storage, aboveground storage, and dispensers, including spill prevention, control and countermeasures.
  - (d) All chemicals and waste products (except fuels), and storage containers (such as drums cans, or cartons) shall be stored so that these materials are not exposed to storm water. Drums, barrels, tanks and similar containers that are sealed without operational taps or valves are not considered exposed to storm water. Commingled water may not be discharged under this permit. Spill prevention, control, countermeasures and/or management shall be provided sufficient to prevent any spills of these pollutants from entering waters of the state. Any containment system used to implement this requirement shall be constructed of materials compatible with the substances contained and shall also prevent the contamination of groundwater.
  - (e) Good housekeeping practices shall be maintained on the site to keep solid waste from entry into waters of the state.

OTHER REQUIREMENTS (continued)

5. If vehicle or equipment washing/rinsing is conducted at the facility or other similar process wastewater is generated, permittee shall treat the resulting wastewater prior to discharge to waters of the state in order to meet the effluent limitations and other permit conditions. A construction permit must be obtained from the department prior to construction of any treatment structure or device.
6. If dumping or disposal of waste concrete, waste asphalt, waste clay or glass products, or waste rock is conducted at the facility, permittee shall prevent the material from entering waters of the state. Any resulting wastewater or leachate from these activities must be treated prior to discharge. Discharging these materials into waters of the state during off site activities is also prohibited.
7. Permittee shall prevent the spillage or loss of fluids, oil, grease, fuel, etc. from vehicle maintenance, equipment maintenance, or warehousing activities and thereby prevent the contamination of storm water from these substances.
8. Permittee shall designate an individual as responsible for environmental matters at the facility who will serve as a contact for the department. Permittee shall notify the department in writing of a personnel change for this position. One individual may be the contact for multiple facilities so long as that person can effectively communicate with the department on every facility.
9. Permittee shall maintain records of all pumped discharges that enter surface waters of the state. These records must include an estimate of the volume, the date and time(s), and the location of each discharge.
10. All outfalls must be clearly marked in the field or clearly identified on a map submitted to the department and kept on file at the mine/plant office. Outfall locations may be added or deleted by the permittee following notification to the department. Notification shall include a map identifying the added or deleted outfalls and will result in the modification of the permit.
11. Storm water discharge monitoring is not required of areas stabilized by a durable non-erosive surface, such as hauling roads that are completely covered with gravel. Monitoring or further improvements may be required if department staff determine that the improvements are not adequate to protect water quality.
12. 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 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:
    - (1) Contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
    - (2) Controls any pollutant not limited in the permit.
  - (b) Incorporate new or modified effluent limitations or other conditions, if the result of a waste load allocation study, toxicity test, or other information indicates changes are necessary to assure compliance with Missouri Water Quality Standards.
  - (c) Incorporate new or modified effluent limitations or other conditions if, as the result of a watershed analysis, a Total Maximum Daily Load (TMDL) limitation is developed for the receiving waters which are currently included in Missouri's current 303(d) list.
  - (d) The permit as modified or reissued under this paragraph shall also contain any other requirements of the Act then applicable.
13. Water Quality Standards
  - (a) Discharges to waters of the state shall not cause a violation of water quality standards rule under 10 CSR 20-7.031, including both specific and general criteria.
  - (b) General Criteria. The following general 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.

### **TERMINATION OF PERMIT**

If the activities covered by this permit have ceased and no significant materials (as defined by 10 CSR 20-6.200) remain on the property, the permittee may request termination of this permit. To request termination, the permittee must submit Form H – “Request for Termination of a General Permit.”

### **PERMIT TRANSFER**

This permit may be transferred to a new permittee by submitting an “Application for Transfer of Operating Permit” signed by the transferor and transferee of the facility, along with the appropriate modification fee.

### **PERMIT RENEWAL REQUIREMENTS**

Unless this permit is terminated, the permittee shall submit an application for the renewal of this permit no later than six (6) months prior to the permit’s expiration date.

### **DUTY OF COMPLIANCE**

The permittee shall comply with all conditions of this general permit. Any noncompliance with this general permit constitutes a violation of Chapter 644, Missouri Clean Water Law, and 10 CSR 20-6.200. Noncompliance may result in enforcement action, termination of this authorization, or denial of the permittee's request for renewal.

### **PUBLIC NOTICE**

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 if the facility was found to be in significant noncompliance during the time of the previous permit 10 CSR 20-6.020(1)(C).

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

The Federal Water Pollution Control Act ("Clean Water Act" Section 402 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 storm water from certain point sources. All such discharges are unlawful without a permit (Section 301 of the "Clean Water Act"). After a permit is obtained, a discharge not in compliance with all permit terms and conditions is unlawful. Missouri State Operating Permits (MSOPs) are issued by the Director of the Missouri Department of Natural Resources (Department) under an approved program, operating in accordance with federal and state laws (Federal "Clean Water Act" and "Missouri Clean Water Law" Section 644 as amended). MSOPs are issued for a period of five (5) years unless otherwise specified.

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

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

This Factsheet is for a Major , Minor , Industrial Facility ; Variance ; Master General Permit ; General Permit Covered Facility ; and/or permit with widespread public interest .

**Part I – Facility Information**

Facility Type: Industrial  
Facility SIC Code(s): 1422, 295x, 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 plants, glass product industries, and clay product industries.

**Part III – Receiving Stream Information**

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

As per Missouri's Effluent Regulations [10 CSR 20-7.015], the waters of the state are divided into the below listed 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 Limits section.

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)]:

10 CSR 20-7.031 Missouri Water Quality Standards, the Department defines the Clean Water Commission water quality objectives in terms of "water uses to be maintained and the criteria to protect those uses."

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

The need for an individual public notification process shall be determined and identified in the general permit. [10 CSR 20-6.020(1)(C)5.] 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.].

Applicable ;

Issuance of coverage to an individual facility under this Master General Permit **for the first time** shall be placed on Public Notice for 30 days in accordance with 10 CSR 20-6.020(1)(B) & (C).

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

### **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.

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

### **ANTIDegradation:**

Antidegradation policies are such to ensure protection of water quality for a particular water body where the water quality exceeds levels necessary to protect fish and wildlife propagation and recreation on and in the water. This also includes special protection of waters designated as outstanding natural resource waters. Antidegradation plans are adopted by each State to minimize adverse effects on water.

In accordance with Federal and State Regulations, 40 CFR § 131.12(a) and 10 CSR 20-7.031(2) respectively, all permitted discharges must undergo an antidegradation review in order to demonstrate:

- (1) Existing instream uses are maintained and protected
- (2) Social and Economic importance for degradation of waters
- (3) Exceptional or outstanding waters are maintained and protected

In accordance with Missouri's Antidegradation Implementation Procedure (AIP), any discharge may assume significant degradation and complete an alternatives analysis to show the highest level of attainable effluent treatment. The conclusion of the analysis will show the highest level of attainable effluent treatment that is practicable, effective, reliable, and economically efficient. The following list of policies will be considered the alternative options for MOG490000:

1. water re-use opportunities (i.g. haul road watering and use of spray bars for dust suppression or irrigation)
2. grading of land area around site with vegetation buffer zones and structures to control velocity
3. chemical treatment (alum)
4. exposure control
5. detention basins
6. sand filter
7. retention basins
8. infiltration devices
9. land application

Items 1-5 have been determined to be a cost effective treatment technology. The following links provide costing information and application rates for Alum treatment. The other alternatives should be addressed in the SWPPP that is required to obtain the operating permit.

[http://www.dnr.state.wi.us/org/water/fhp/papers/alum\\_brochure.pdf](http://www.dnr.state.wi.us/org/water/fhp/papers/alum_brochure.pdf)

<http://www.indianafishfarming.com/images/stories/Workshops/Production/PondSystems/460fs%20-%20Pond%20Clay%20Turbidity.pdf>

### Missouri Antidegradation Rule and Implementation Procedure

#### (1) Section II Part A

The discharge will not be considered significant degradation if the activity will only result in temporary degradation. Consultation with the department and a detailed operating timeline will be necessary to determine whether or not this is a viable option. If temporary degradation is applicable the permittee will submit the following information:

- (a) Length of time water quality will be lowered.
- (b) % change in ambient conditions
- (c) Parameters affected
- (d) Potential for any residual long-term influences on existing uses.

#### (2) All other situations

Significant degradation will occur. Independent evaluation of the listed BMP's must be completed. BMP's must also be considered in conjunction as separate alternatives.

**STORM WATER POLLUTION PREVENTION PLAN (SWPPP):**

In accordance with 40 CFR 122.44(k) *Best Management Practices (BMPs)* to control or abate the discharge of pollutants when: (1) Authorized under section 304(e) of the Clean Water Act (CWA) for the control of toxic pollutants and hazardous substances from ancillary industrial activities; (2) Authorized under section 402(p) of the CWA for the control of storm water 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 (regarding this operating permit) waters of the state. BMPs may take the form of a process, activity, or physical structure.

Additionally in accordance with the Storm Water 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.

Other guidance regarding the development and implementation of a SWPPP can be found at <http://dnr.mo.gov/env/wpp/stormwater/sw-industrial-permits.htm>

**BMP corrective action vs. maintenance:**

**Maintenance:** Maintenance related to BMPs at a facility are activities done regularly to keep the BMPs in good condition and working order.

**Corrective Action:** Are activities that are done to correct a deficiency BMPs related to an exceedance of the established pollutant benchmarks, violations of the water quality standard, or violations of permit conditions.

Applicable ;

A SWPPP shall be developed and implemented for each site and shall incorporate required practices identified by the Department with jurisdiction, incorporate erosion control practices specific to site conditions, and provide for maintenance and adherence to the plan.

**WATER QUALITY STANDARDS:**

Per [10 CSR 20-7.031(3)], 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 establish in each NPDES permit to include conditions to achieve water quality established under Section 303 of the Clean Water Act, including State narrative criteria for water quality.

**303(d) LIST & TOTAL MAXIMUM DAILY LOAD (TMDL):**

Section 303(d) of the federal Clean Water Act 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 (such as swimming), 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. Applications for coverage under Master General Permits in the watersheds of bodies of water with a TMDL are evaluated on a case by case basis.

## **Part V – 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 operating permit terms and conditions that supersede the terms and conditions, including effluent limitations, of this operating permit.

### **EFFLUENT LIMITATIONS TABLE:**

#### **Non-storm Water Discharges**

PARAMETER	UNIT	BASIS FOR LIMITS	DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MODIFIED	PREVIOUS PERMIT LIMITATIONS
FLOW	GPD	1	*		*	NO	*
TSS	MG/L	9	70		70	NO	70/70
PH	SU	1	6.5-9.0		6.5-9.0	YES	6.0-9.0/6.0-9.0
SETTLABLE SOLIDS	mL/L/hr	9	1.5		1.0	YES	**
OIL & GREASE (MG/L)	MG/L	1/2	15		10	NO	15/10
MONITORING FREQUENCY	Please see Minimum Sampling and Reporting Frequency Requirements in the Derivation and Discussion Section below.						

\* - Monitoring requirement only.

\*\* - Parameter not previously established in previous state operating permit.

### **BENCHMARK TABLE:**

#### **Storm Water Discharges**

PARAMETER	UNIT	BASIS FOR BENCHMARK	DAILY MAXIMUM	PREVIOUS PERMIT LIMITATIONS
TSS	MG/L	9	100	**
PH	SU	1	6.5-9.0	6.0-9.0/6.0-9.0
SETTLABLE SOLIDS	mL/L/hr	9	1.5	1.5/1.0
OIL & GREASE (MG/L)	MG/L	1/2	15	15/10

\* - Monitoring requirement only.

\*\* - Parameter not previously established in previous state operating permit

#### **Basis for Limitations Codes:**

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

### **DERIVATION AND DISCUSSION OF LIMITS:**

- **Benchmarks.** Benchmarks for storm water discharges have been developed for this permit. Sampling of benchmark pollutants serves as a method of verification of storm water BMP effectiveness as required in the SWPPP.
- **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 to inform the Department, which may require the submittal of an operating permit modification.
- **Total Suspended Solids Non Storm Water (TSS).** Effluent limitations for TSS for non-storm water discharges from the previous state operating permit have been reassessed and verified that they are still protective of the receiving stream's Water Quality. This limit is a best professional judgment limit consistent with limits in similar Missouri master general permits addressing processed water from mining sites.

- **Total Suspended Solids Benchmark Storm Water (TSS).** The benchmark for TSS is a best professional judgment value established to verify the effectiveness of storm water BMPs. This benchmark is consistent with EPA's Multi Sector General Permit which is utilized in other States to permit storm water and other specified discharges from limestone and other rock quarries, concrete, glass, and asphalt industries.
- **Settleable Solids Non Storm Water (SS).** Effluent limitations for settleable solids for non-storm water discharges have been included in this permit. This limit is achievable based on the technology available such as settling tanks or basins. This limit is consistent with limits in similar Missouri master general permits addressing processed water from mining sites.
- **Settleable Solids Benchmark Storm Water (SS).** The benchmark for SS is a best professional judgment value established to verify the effectiveness of storm water BMPs. During the drafting of the master general permit an analysis of settleable solids data submitted to the department during the years of 1990-2006 was conducted. It was determined that 1.0 mL/L/h represents the 87<sup>th</sup> percentile of that data. Therefore it has been determined that 1.0 mL/L/h is an achievable benchmark representing available BMP technologies.
- **pH Non Storm Water and Storm Water.** 10 CSR 20-7.031(4)(E) requires a pH range of 6.5-9.0.
- **Oil & Grease Non Storm Water and Storm Water.** Conventional pollutant, effluent limitation for protection of aquatic life; 10 mg/L monthly average, 15 mg/L daily maximum.
- **Minimum Sampling and Reporting Frequency Requirements.** Sampling and reporting frequency requirements for non-storm water discharges have been retained from previous state operating permit. Storm water discharge sampling has been increased to quarterly; however numeric limitations have been removed and replaced with benchmarks to verify the effectiveness of the implemented BMPs.

## **Part VI – Administrative Requirements**

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

### **PUBLIC NOTICE:**

On the basis of preliminary staff review and the application of applicable standards and regulations, the Department, as administrative agent for the Missouri Clean Water Commission, proposes to issue a permit(s) subject to certain effluent limitations, schedules, and special conditions contained herein and within the operating permit. The proposed determinations are tentative pending public comment. The public comment period is the length of time not less than 30 days following the date of the public notice which interested persons may submit written comments about the proposed permit.

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

**DATE OF FACT SHEET:** 4-13-2011

### **COMPLETED BY:**

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