

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-R23A000

Owner:
Address:

Continuing Authority:
Address:

Facility Name:
Facility Address:

Legal Description:
Latitude/Longitude:

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

Storm water runoff from facilities engaged in chemical manufacturing.

(For SIC Codes see page two)

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.

March 12, 2010
Effective Date


Mark N. Templeton, Director, Department of Natural Resources

March 11, 2015
Expiration Date


Scott B. Totten, Acting Director, Water Protection Program

APPLICABILITY

1. This permit authorizes the discharge of storm water runoff from chemical and lubricant manufacturing facilities and storage operations to waters of the state of Missouri, including, but not limited to, establishments with a primary Standard Industrial Classification Code (SIC) of 28xx, except 282x (certain plastics and rubbers), 2869 (biodiesel), and 287x (agricultural facilities) and 2992. These activities are covered under different general permits.
2. This permit **does not authorize** storm water discharges:
 - (a) Within 1,000 feet of streams identified as a losing stream, sinkhole, or other conduit to groundwater*,
 - (b) Within 1,000 feet of streams or lakes listed as an outstanding state resource water*,
 - (c) Within 1,000 feet of reservoirs or lakes used for public drinking water supplies (class L1)*,
 - (d) Within 1,000 feet of streams, lakes, or reservoirs identified as critical habitat for endangered species.
 - (e) Within 500 feet of intermittent streams (class C) or wetlands*,
 - (f) Within 100 feet of a permanent stream (class P)* or major reservoir (class L2)*,
 - (g) Within two stream miles upstream of biocriteria reference locations*, or
 - (h) Within the watersheds of streams or lakes listed as an outstanding national resource water* or their tributaries.

* Identified or described in 10 CSR 20, Chapter 7. These regulations are available at many libraries and online at www.sos.mo.gov, or may be purchased from MDNR by calling the Water Protection Program.
3. If at any time the Missouri Department of Natural Resources determines that the quality of waters of the state may be better protected by requiring the owner/operator of the permitted site to apply for a site specific permit, the department may do so.
4. If at any time the permittee should desire to apply for an individual State Operating Permit, the owner may do so. Holders of current individual State Operating permits who desire to apply for inclusion under this general permit should contact the department for application requirements.
5. This permit does not authorize the discharge of waters other than storm water. Discharge of other wastewaters, spills, or other materials is a violation of Missouri Clean Water Law.
6. 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 for an impaired water may be required to obtain a site-specific permit.

A. MONITORING REQUIREMENTS		PAGE NUMBER 3 of 10				
		PERMIT NUMBER MO-R23A000				
The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The monitoring requirements 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	MONITORING REQUIREMENTS				
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
<u>All outfalls</u> Report by July 28 th and January 28 th of each year	MGD					
Flow		*			twice/year	24 hr. estimate
Storm Water Sampling Report (see Sampling Requirements)		*			twice/year	grab
Chemicals listed in 40 CFR 122 Appendix D (see pages 8-10)		*			once/year	grab
Other Soluble Bulk Materials**		*			once/year	grab
MONITORING REPORTS SHALL BE SUBMITTED <u>ANNUALLY</u> ; THE FIRST REPORT IS DUE <u>January 28, 2010</u> . THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						
B. STANDARD CONDITIONS						
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</u> , AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.						

A. MONITORING REQUIREMENTS (continued)

- * Monitoring requirement only.
- ** Other soluble bulk materials that are not listed in 40 CFR 122 Appendix D that are stored outside and exposed to storm water must also be monitored.

SAMPLING REQUIREMENTS AND BENCHMARKS

1. Sampling and analysis of storm water discharges for Chemical Oxygen Demand, Total Suspended Solids, pH and Oil & Grease must occur at least twice per year. One sample must be collected between January 1st and June 30th, and another sample between July 1st and December 31st. Reports are to be submitted by January 28th of each year. Sampling and analysis of storm water discharges for Chemicals listed in 40 CFR 122 Appendix D, and other soluble materials stored outdoors must occur at least once per year, and reported by January 28th. 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.

SAMPLING REQUIREMENTS AND BENCHMARKS

4. The following Benchmarks are considered necessary to protect water quality and shall not be exceeded. 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

Parameter	Benchmark
Chemical Oxygen Demand ₅	90 mg/L
Total Suspended Solids	50 mg/L
pH – Units	6.5-9.0 Standard Units
Oil & Grease	10 mg/L
Chemicals listed in 40 CFR 122 Appendix D	Non Detect
Other Soluble Bulk Materials	Non Detect

5. Chemicals listed in 40 CFR 122 Appendix D appear in this permit beginning on page 8 of this permit. Sampling must occur **only** for chemicals which are currently or have been stored or disposed of outside in the last three years in open or unsecured containers, loaded or unloaded, or treated and exposed to storm water. A secure container shall be deemed to be a container with a lid which has never been opened since it was originally sealed.
6. Other soluble bulk materials that are not listed in 40 CFR 122 Appendix D that are stored outside and exposed to storm water must also be monitored. If permittee has questions concerning which parameters to sample and test for, contact the Water Protection Program.
7. 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.
8. At no time shall any discharge result in a violation of Water Quality Standards (as described in Requirements #9). 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.

REQUIREMENTS

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

1. **For New or Expanding Facilities:** The primary requirement of this permit is the development and implementation of a Storm Water Pollution Prevention Plan (SWPPP). For new facilities applying for coverage under this general permit, or those seeking to expand, accompanying the permit application must be a SWPPP that includes an analysis of the Best Management Practices (BMPs). This analysis is a structured evaluation of BMPs that are reasonable and cost effective. The 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 analysis 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 Best Management Practices chosen through the Alternative Analysis must be implemented and maintained at the facility. Failure to implement and maintain the chosen alternative is a permit violation.

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

For existing facilities, because a SWPPP was not previously required for these facilities, the SWPPP must be prepared within 60 days and fully implemented within 120 days. The SWPPP must be kept on-site and should not be sent to DNR unless specifically requested. The permittee shall select, install, use, operate, and maintain the Best Management Practices 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 Best Management Practices (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 that consist of minor repairs or maintenance must be corrected within seven (7) days. Deficiencies that require additional time or installation of a treatment device to correct should be detailed in the written notification. Installation of a treatment device, such as an oil water separator, may require a construction permit. 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 DNR.
2. 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.

REQUIREMENTS (continued)

3. The following are minimum BMPs that must be implemented at all facilities:
 - (a) Collection facilities shall be provided on-site, and arrangements made for proper disposal of waste products which may be exposed to storm water.
 - (b) All fueling facilities present on-site shall adhere to applicable federal and state regulations concerning underground storage, above ground storage, and dispensers, including spill prevention, control and counter measures.
 - (c) Substances regulated by federal law under the Resource Conservation and Recovery Act (RCRA) or the Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA) that are transported, stored, or used for maintenance, cleaning or repair shall be managed according to the provisions of RCRA and CERCLA.
 - (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. Spill prevention, control, 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.
4. All spills must be **cleaned up** within 24 hours or as soon as possible, and a written report of the incident supplied with the facility's Storm Water Sampling Report. The following spills must be **reported** to the department at the earliest practicable moment, but no greater than 24 hours after the spill occurs:
 - (a) Any spill, of any material, that leaves the property of the facility;
 - (b) Any spill, of any material outside of secondary containment and exposed to precipitation, greater than 25 gallons or equivalent volume of solid material.

The department may require the submittal of a written report detailing measures taken to clean up the spill within 5 days of the spill. Whether the written report is submitted with the Storm Water Sampling Report or required to be submitted within 5 days, it must include the type of material spilled, volume, date of spill, date clean-up completed, clean-up method, and final disposal method. If the spill occurs outside of normal business hours, or if the permit holder cannot reach regional office staff for any reason, the permit holder is instructed to report the spill to the department's 24 hour Environmental Emergency Response hotline at (573) 634-2436. Leaving a message on a department staff member voice-mail does not satisfy this reporting requirement. These reporting requirements apply whether or not 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.

Federal Regulations (CERCLA) require reporting spills and releases to soil, water and air in excess of reportable quantities. The toll free number for the US Coast Guard National Response Center is (800) 424-8802.

5. 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's 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 list of waters of the state not fully achieving the state's water quality standards, also called the 303(d) list.The permit as modified or reissued under this paragraph shall also contain any other requirements of the Clean Water Act then applicable.
6. All outfalls must be clearly marked in the field.

REQUIREMENTS (continued)

7. Changes in Discharges of Toxic Substances

The permittee shall notify the Director as soon as it knows or has reason to believe:

- (a) That any activity has occurred or will occur which would result in the discharge 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; five hundred micrograms per liter (500 µg/L) for 2,5 dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
 - (3) Five (5) times the maximum concentration value reported for the pollutant in the permit application;
 - (4) The level established in Part A of the permit by the Director.
- (b) That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant, which was not reported in the permit application.

8. Report as no-discharge when a discharge does not occur during the report period.

9. 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.

PERMIT TRANSFER

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.

TERMINATION

Coverage under this permit may be terminated when activities covered by this permit have ceased and no significant materials or residual contamination remain at the site, or have the potential to cause pollution. If such a termination is sought, the permittee shall submit Form H, Termination of a General Permit.

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. Failure to apply for renewal may result in termination of this permit and enforcement action to compel compliance with this condition and the Missouri Clean Water Law.

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. Noncompliance may result in enforcement action, termination of this authorization, or denial of the permittee's request for renewal.

This permit authorizes only the activities described in this permit. Compliance with this permit may not be considered a shield from compliance with any local ordinance, State Regulation or State Law.

Appendix D, To Part 122 - NPDES Permit Application Testing Requirements (122.21)

Table II - Organic Toxic Pollutants In Each Of Four Fractions In Analysis By Gas Chromatography/Mass Spectroscopy (GS/MS).

<u>Volatiles</u>		<u>Base/Neutral</u>	
1	Vacrolein	1B	acenaphthene
2	Vacrylonitrile	2B	acenaphthylene
3	Vbenzene	3B	anthracene
5	Vbromoform	4B	benzidine
6	Vcarbon tetrachloride	5B	benzo(a)anthracene
7	Vchlorobenzene	6B	benzo(a)pyrene
8	Vchlorodibromomethane	7B	3,4-benzofluoranthene
9	Vchloroethane	8B	benzo(ghi)perylene
10	V2-chloroethylvinyl ether	9B	benzo(k)fluoranthene
11	Vchloroform	10B	bis(2-chloroethoxy)methane
12	Vdichlorobromomethane	11B	bis(2-chloroethyl)ether
14	V1,1-dichloroethane	12B	bis(2-chloroisopropyl)ether
15	V1,2-dichloroethane	13B	bis(2-ethylhexyl)phthalate
16	V1,1-dichloroethylene	14B	4-bromophenyl phenyl ether
17	V1,2-dichloropropane	15B	butylbenzyl phthalate
18	V1,3-dichloropropylene	16B	2-chloronaphthalene
19	Vethylbenzene	17B	4-chlorophenyl phenyl ether
20	Vmethyl bromide	18B	chrysene
21	Vmethyl chloride	19B	dibenzo(a,h)anthracene
22	Vmethylene chloride	20B	1,2-dichlorobenzene
23	V1,1,2,2-tetrachloroethane	21B	1,3-dichlorobenzene
24	Vtetrachloroethylene	22B	1,4-dichlorobenzene
25	Vtoluene	23B	3,3'-dichlorobenzidine
26	V1,2-trans-dichloroethylene	24B	diethyl phthalate
27	V1,1,1-trichloroethane	25B	dimethyl phthalate
28	V1,1,2-trichloroethane	26B	di-n-butyl phthalate
29	Vtrichloroethylene	27B	2,4-dinitrotoluene
31	Vvinyl chloride	28B	2,6-dinitrotoluene
—	-	29B	di-n-octyl phthalate
		31B	fluoranthene
1A	2-chlorophenol	32B	fluorene
2A	2,4-dichlorophenol	33B	hexachlorobenzene
3A	2,4-dimethylphenol	34B	hexachlorobutadiene
4A	4,6-dinitro-o-cresol	35B	hexachlorocyclopentadiene
5A	2,4 dinitrophenol	36B	hexachloroethane
6A	2-nitrophenol	37B	indeno(1,2,3-cd)pyrene
7A	4-nitrophenol	38B	isophorone
8A	p-chloro-m-cresol	39B	naphthalene
9A	pentachlorophenol	40B	nitrobenzene
10A	phenol	41B	N-nitrosodimethylamine
11A	2,4,6-trichlorophenol	42B	N-nitrosodi-n-propylamine
		43B	N-nitrosodiphenylamine
		44B	phenanthrene
		45B	pyrene
		46B	1,2,4-trichlorobenzene

(continued on next page)

Appendix D, To Part 122 - NPDES Permit Application Testing Requirements (122.21)

<u>Pesticides</u>	<u>Table IV – Conventional and Nonconventional Pollutants Required to be Tested by Existing Dischargers if Expected to be Present</u>
1 Paldrin	
2 Palpha-BHC	
3 Pbeta-BHC	Bromide
4 Pgamma-BHC	Chlorine, Total Residual
5 Pdelta-BHC	Color
6 Pchlordan	Fecal Coliform
7 P4,4'-DDT	Fluoride
8 P4,4'-DDE	Nitrate-Nitrite
9 P4,4'-DDD	Nitrogen, Total Organic
10 Pdieltrin	Oil and Grease
11 Palpha-endosulfan	Phosphorus, Total
12 Pbeta-endosulfan	Radioactivity
13 Pendosulfan sulfate	Sulfate
14 Pendrin	Sulfide
15 Pendrin aldehyde	Sulfite
16 Pheptachlor	Surfactants
17 Pheptachlor epoxide	Aluminum, Total
18 PPCB-1242	Barium, Total
19 PPCB-1254	Boron, Total
20 PPCB-1221	Cobalt, Total
21 PPCB-1232	Iron, Total
22 PPCB-1248	Magnesium, Total
23 PPCB-1260	Molybdenum, Total
24 PPCB-1016	Manganese, Total
25 Ptoxaphene	Tin, Total
	Titanium, Total

Table III – Other Toxic Pollutants
(Metals and Cyanide) and Total Phenols

Antimony, Total
 Arsenic, Total
 Beryllium, Total
 Cadmium, Total
 Chromium, Total
 Copper, Total
 Lead, Total
 Mercury, Total
 Nickel, Total
 Selenium, Total
 Silver, Total
 Thallium, Total
 Zinc, Total
 Cyanide, Total
 Phenols, Total

Table V – Toxic Pollutants and Hazardous
Substances Required to be Identified by Existing
Dischargers if Expected to be Present

Toxic Pollutants

Asbestos

Hazardous Substances

Acetaldehyde
 Allyl alcohol
 Allyl chloride
 Amyl acetate
 Aniline
 Benzonitrile
 Benzyl chloride
 Butyl acetate
 Butylamine
 Captan
 Carbaryl
 Carbofuran

(continued on next page)

Appendix D, To Part 122 - NPDES Permit Application Testing Requirements (122.21)

Table V (continued)

Hazardous Substances (continued)

Carbon disulfide	Pyrethrins
Chlorpyrifos	Quinoline
Coumaphos	Resorcinol
Cresol	Strontium
Crotonaldehyde	Strychnine
Cyclohexane	Styrene
2,4-D(2,4-Dichlorophenoxy acetic acid)	2,4,5-T(2,4,5-Trichlorophenoxy acetic acid)
Diazinon	TDE(Tetrachlorodiphenylethane)
Dicamba	2,4,5-TP [2-(2,4,5-Trichlorophenoxy) propanoic acid]
Dichlobenil	Trichlorofan
Dichlone	Triethanolamine dodecylbenzenesulfonate
2,2-Dichloropropionic acid	Triethylamine
Dichlorvos	Trimethylamine
Diethyl amine	Uranium
Dimethyl amine	Vanadium
Dinitrobenzene	Vinyl acetate
Diquat	Xylene
Disulfoton	Xylenol
Diuron	Zirconium
Epichlorohydrin	
Ethion	
Ethylene diamine	
Ethylene dibromide	
Formaldehyde	
Furfural	
Guthion	
Isoprene	
Isopropanolamine Dodecylbenzenesulfonate	
Kelthane	
Kepone	
Malathion	
Mercaptodimethur	
Methoxychlor	
Methyl mercaptan	
Methyl methacrylate	
Methyl parathion	
Mevinphos	
Mexacarbate	
Monoethyl amine	
Monomethyl amine	
Naled	
Napthenic acid	
Nitrotoluene	
Parathion	
Phenolsulfanate	
Phosgene	
Propargite	
Propylene oxide	

Missouri Department of Natural Resources
FACT SHEET
FOR THE PURPOSE OF RENEWAL
OF
MO-R23A000
MASTER GENERAL PERMIT FOR CHEMICAL MANUFACTURING

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 storm water
Facility SIC Codes: 2992 and 28xx, except 282x, 2869, and 287x. Does not apply to 282x, 2869 or 287x.

Facility Description:
Storm water runoff from facilities engaged chemical manufacturing.

Comments:
This permit has been revised to include benchmarks to evaluate the effectiveness of the Storm Water Pollution Prevention Plan. Exceedance of a benchmark during sampling event requires an evaluation of BMPs and correction of the deficiency that caused the exceedance. Because of the level of risk to human health and the environment associated with the pollutants that appear in Appendix D, and because discharge of these pollutants is preventable by good BMPs, the benchmark is set at no detection of these pollutants. Discharges of other soluble bulk materials that do not appear in Appendix D are also preventable with appropriate BMPs. Semiannual sampling and reporting is required. This replaces the "monitoring only" requirements of the previous permit with action levels that require revision of the Best Management Practices if a benchmark is exceeded. The benchmark for TSS has been lowered from 70 mg/L to 50 mg/L, consistent with other industrial storm water permits issued in MO.

Part II – Operator Certification Requirements

Not Applicable; these facilities are not required to have a certified operator.

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." The receiving stream and/or 1st classified receiving stream's beneficial water uses to be maintained are located in the Receiving Stream Table located below in accordance with [10 CSR 20-7.031(3)].

Because this permit is applicable to facilities with a receiving stream low flow of less than 1 cubic feet per second, no Mixing Zone or Zone of Initial Dilution is allowed. [10 CSR 20-7.031(4)(A)4.B.(I)(a) & 10 CSR 20-7.031(4)(A)4.B.(I)(b)].

RECEIVING STREAM MONITORING REQUIREMENTS:

No receiving water monitoring requirements recommended at this time.

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

ALTERNATIVE EVALUATIONS FOR NEW FACILITIES:

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

Applicable ;

Not Applicable ;

The facility does not discharge to a Losing Stream as defined by [10 CSR 20-2.010(36)] & [10 CSR 20-7.031(1)(N)], or is an existing facility.

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.

- New facility, backsliding does not apply.

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

- Limitations in this operating permit for the reissuance of this permit conform to the anti-backsliding provisions of Section 402(o) of the Clean Water Act, and 40 CFR Part 122.44.

ANTIDegradation:

In accordance with Missouri's Water Quality Standard [10 CSR 20-7.031(2)], the department is to document by means of Antidegradation Review that the use of a water body's available assimilative capacity is justified. Degradation is justified by documenting the socio-economic importance of a discharging activity after determining the necessity of the discharge.

- Renewal no degradation proposed and no further review necessary.

- New and/or expanded discharge, please see APPENDIX # – ANTIDegradation ANALYSIS.

- General Permit's Antidegradation Review is conducted during template development. The Department has determined that the best avenue forward for implementing the Antidegradation Implementation Procedure (AIP) into General Permits, is by means of an Alternative Analysis (AA). AA's will require a facility to demonstrate what storm water controls are achievable with the best alternative being a no exposure of material to precipitation. New or expanded facilities will need to document why no exposure of material is not achievable.

SCHEDULE OF COMPLIANCE (SOC):

A schedule of remedial measures included in a permit, including an enforceable sequence of interim requirements (actions, operations, or milestone events) leading to compliance with the Missouri Clean Water Law, its implementing regulations, and/or the terms and conditions of an operating permit.

Applicable ;

The time given for effluent limitations of this permit listed under Interim Effluent Limitation and Final Effluent Limitations were established in accordance with [10 CSR 20-7.031(10)].

Not Applicable ;

This permit does not contain a SOC.

SET-BACKS

Set-backs are common elements of general permits, and are established to provide a margin of safety in order to protect the receiving stream from accidents, spills, unusual events, etc. They are also established to show what receiving streams the permit writer considered in drafting the permit.

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.]

Applicable ;

Public Notice is required for issuance of coverage under this Master General Permit to individual facilities for the first time.

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.].

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 *Storm Water Management for Industrial Activities: Developing Pollution Prevention Plans and Best Management Practices* [EPA 832-R-92-006] (Storm Water Management), 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.

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.

Not Applicable ;

At this time, the permittee is not required to develop and implement a SWPPP.

WASTELOAD ALLOCATIONS (WLA) FOR LIMITS:

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

Applicable ;

Wasteload allocations were calculated where applicable using water quality criteria or water quality model results and the dilution equation below:

$$C = \frac{(C_s \times Q_s) + (C_e \times Q_e)}{(Q_e + Q_s)} \quad (\text{EPA/505/2-90-001, Section 4.5.5})$$

Where C = downstream concentration
Cs = upstream concentration
Qs = upstream flow
Ce = effluent concentration
Qe = effluent flow

Chronic wasteload allocations were determined using applicable chronic water quality criteria (CCC: criteria continuous concentration) and stream volume of flow at the edge of the mixing zone (MZ). Acute wasteload allocations were determined using applicable water quality criteria (CMC: criteria maximum concentration) and stream volume of flow at the edge of the zone of initial dilution (ZID).

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

Not Applicable ;

Wasteload allocations were not calculated.

WLA MODELING:

There are two general types of effluent limitations, technology-based effluent limits (TBELs) and water quality based effluent limits (WQBELs). If TBELs do not provide adequate protection for the receiving waters, then WQBEL must be used.

Applicable ;

Not Applicable ;

A WLA study cannot be developed for General Permits because they apply to multiple facilities with different receiving water bodies.

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.

WHOLE EFFLUENT TOXICITY (WET) 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.

Applicable ;

Under the federal Clean Water Act (CWA) §101(a)(3), requiring WET testing is reasonably appropriate for site-specific Missouri State Operating Permits for discharges to waters of the state issued under the National Pollutant Discharge Elimination System (NPDES). WET testing are also required by 40 CFR 122.44(d)(1). WET testing ensures that the provisions in the 10 CSR 20-6.010(8)(A)7. and the Water Quality Standards 10 CSR 20-7.031(3)(D),(F),(G),(I)2.A & B are being met. Under [10 CSR 20-6.010(8)(A)4], the department may require other terms and conditions that it deems necessary to assure compliance with the Clean Water Act and related regulations of the Missouri Clean Water Commission. In addition the following MCWL apply: §§644.051.3 requires the Department to set permit conditions that comply with the MCWL and CWA; 644.051.4 specifically references toxicity as an item we must consider in writing permits (along with water quality-based effluent limits, pretreatment, etc...); and 644.051.5 is the basic authority to require testing conditions. WET test will be required by all facilities meeting the following criteria:

- Facility is a designated Major.
- Facility continuously or routinely exceeds its design flow.
- Facility (industrial) that alters its production process throughout the year.
- Facility handles large quantities of toxic substances, or substances that are toxic in large amounts.
- Facility has Water Quality-based Effluent Limitations for toxic substances (other than NH₃)
- Facility is a municipality or domestic discharger with a Design Flow \geq 22,500 gpd.
- Other – please justify.

Not Applicable ;

At this time, the permittee is not required to conduct WET test for this facility.

Part V – Benchmark Limits Determination

All outfalls

BENCHMARK LIMITATIONS TABLE:

PARAMETER	UNIT	BASIS FOR LIMITS	BENCHMARK	MODIFIED	PREVIOUS PERMIT LIMITATIONS
Flow	MGD	1	*	NO	
COD	mg/L	3,9	90	NO	
TSS	mg/L	3,9	50	YES	70
pH	SU	2	6.5-9.0	YES	6-9
Oil & Grease	mg/L	2	10	NO	
Appendix D Chemicals Stored	µg/L	9	*	NO	
Other Bulk Materials Stored	µg/L	9	*	NO	

* - 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 |

ALL OUTFALLS – DERIVATION AND DISCUSSION OF BENCHMARKS:

- **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 limitations and to determine loading of particular pollutants from a facility to a receiving waterbody. 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.
- **Chemical Oxygen Demand (BOD₅), Total Suspended Solids** Effluent limits consistent with other industrial storm water facilities. These effluent limits have been demonstrated to be attainable with SWPPPs & existing technology, and are deemed protective of instream water quality.
- **Oil & Grease, pH** Limits set at water quality standards. Because the discharge is storm water, and therefore short duration, acute water quality standards applied where available.
- **Appendix D Chemicals & Other Soluble Bulk Materials** Monitoring to verify that none of these materials are being discharged from the facility.

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:

The department shall give public notice that a draft permit has been prepared and its issuance is pending. Additionally, public notice will be issued if a public hearing is to be held because of a significant degree of interest in and water quality concerns related to a draft permit. No public notice is required when a request for a permit modification or termination is denied; however, the requester and permittee must be notified of the denial in writing.

The department must issue public notice of a pending operating permit or of a new or reissued statewide general permit. The public comment period is the length of time not less than 30 days following the date of the public notice which interested persons may submit written comments about the proposed permit.

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

The Public Notice period for this operating permit is tentatively schedule to begin on (DATE) or is in process.

DATE OF FACT SHEET: 11-18-09

COMPLETED BY:

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