

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-0136107

Owner: Detroit Tool Metal Products  
Address: 949 Bethel Road, Lebanon, MO 65536

Continuing Authority: City of Lebanon  
Address: P.O. Box 111, Lebanon, MO 65536

Facility Name: Detroit Tool Metal Products  
Facility Address: 1611 Auglaize, Lebanon MO 65536

Legal Description: NW¼, SE¼, Sec. 1, T34N, R16W, Laclede County  
Lat/Long: +3741334 / -09238114

Receiving Stream: Unnamed Tributary to Dry Auglaize Creek (U) (losing)  
First Classified Stream and ID: Dry Auglaize Creek (P) (01145) (losing)  
USGS Basin & Sub-watershed No.: (10290109-060002)

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

### **FACILITY DESCRIPTION**

Outfall #001 - Industrial - SIC #3469

Ferrous and Nonferrous foundries, casting, extrusion, rolling, galvanizing and finishing, structural steel production, light metal fabrication, and electrical equipment manufacturing.

Storm water discharges only.

Actual flow is dependent upon precipitation.

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.

January 08, 2010  
Effective Date

  
Mark N. Templeton, Director Department of Natural Resources

January 07, 2015  
Expiration Date

\_\_\_\_\_  
Cynthia S. Davies, Regional Director, Southwest Regional Office

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)					PAGE NUMBER 2 of 5	
					PERMIT NUMBER Mo-0136107	
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 <b>upon issuance</b> 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>Outfall #001</u> - Stormwater						
Flow	GPD	*		*	once/quarter**	24 hr. estimate
Chemicals currently stored outside or in the last three years (Note 1)	mg/L	*		*	once/quarter**	grab
Chemical Oxygen Demand	mg/L	*		*	once/quarter**	grab
Total Suspended Solids	mg/L	*		*	once/quarter**	grab
Settleable Solids	mg/L	1.0		0.5	once/quarter**	grab
pH – Units	SU	***		***	once/quarter**	grab
Iron, Total Recoverable	µg/L	*		*	once/quarter**	grab
Aluminum, Total Recoverable	µg/L	*		*	once/quarter**	grab
Rainfall****	inches	*		*	once/day	grab
MONITORING REPORTS SHALL BE SUBMITTED <u>QUARTERLY</u> ; THE FIRST REPORT IS DUE <b>April 28, 2010</b> . 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>Parts I</u> , STANDARD CONDITIONS DATED <u>October 1, 1980 and August 15, 1994</u> , AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.						

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

\* Monitoring requirement only.

\*\* **All samples shall be collected from a discharge resulting from a precipitation event greater than 0.1 inches in magnitude and that occurs at least 72 hours from the previously measurable precipitation event. Sampling shall occur once per quarter in the periods of January through March, April through June, July through September, and October through December, please note that monitoring reports shall be submitted no later than the 28<sup>th</sup> day of the month following the monitoring period (April 28<sup>th</sup>, July 28<sup>th</sup>, October 28<sup>th</sup>, and January 28<sup>th</sup>, respectively). If a precipitation event does not occur within the reporting period, report as no discharge.** For tracking purposes samples taken anytime in the first quarter (January through March) will be recorded by the department as though they were taken in March, samples taken anytime in the second quarter (April through June) will be recorded by the department as though they were taken in June, samples taken anytime in the third quarter (July through September) will be recorded by the department as though they were taken in September, and samples taken in the fourth quarter (October through December) will be recorded by the department as though they were taken in December.

\*\*\* pH is measured in pH units and is not to be averaged. The pH for all facilities except lagoons is limited to the range of 6.5-9.0 pH units.

\*\*\*\* The total precipitation for the event sampled shall be reported.

Note 1 The sample shall be analyzed for chemicals listed in 40 CFR 122 Appendix D (see Attachment 1) which are currently or have been stored outside in the last three years in open or unsecured containers, loaded or unloaded.

### C. SPECIAL CONDITIONS

1. 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.

2. All outfalls must be clearly marked in the field.

3. 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.
- (c) That the effluent limit established in part A of the permit will be exceeded.

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

5. 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.

C. SPECIAL CONDITIONS

6. This facility must develop and implement a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP must include 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).
7. The SWPPP must be prepared and implemented within 30 days of permit issuance. 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:

Storm Water Management For Industrial Activities, Developing Pollution Prevention Plans and Best Management Activities, (Document number EPA 832-R-92-006) published by the United States Environmental Protection Agency (USEPA) in September 1992.

The SWPPP must include the following:

- (a) An assessment of all storm water discharges associated with vehicle maintenance (including vehicle rehabilitation, mechanical repairs, painting, fueling, and lubrication), equipment cleaning, and chemical deicing/anti-icing activities. 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 specific 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. Minimum BMPs are listed in SPECIAL CONDITIONS #7 below.
  - (c) The SWPPP must include a schedule for a bi-monthly site inspection and a brief written report. The inspections must include observation and evaluation of BMP effectiveness, deficiencies, and corrective measures that will be taken. Deficiencies must be corrected within seven days. Inspection reports must be kept on site with the SWPPP. These must be made available to DNR personnel upon request.
  - (d) A provision for designating an individual to be responsible for environmental matters.
  - (e) A provision for providing training to all personnel involved in material handling and storage, and housekeeping of maintenance and cleaning areas. Proof of training shall be submitted on request of DNR.
8. Permittee shall adhere to the following minimum Best Management Practices:
    - (a) Prevent the spillage or loss of fluids, oil, grease, fuel, etc. from vehicle maintenance, equipment cleaning, or warehouse activities and thereby prevent the contamination of storm water from these substances.
    - (b) Provide collection facilities and arrange for proper disposal of waste products including but not limited to petroleum waste products, and solvents.
    - (c) Store all paint, solvents, petroleum products and petroleum waste products (except fuels), and storage containers (such as drums, cans, or cartons) so that these materials are not exposed to storm water or provide other prescribed BMP's such as plastic lids and/or portable spill pans to prevent the commingling of storm water with container contents. Commingled water may not be discharged under this permit. Provide spill prevention control, and/or management 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.
    - (d) Provide good housekeeping practices on the site to keep trash from entry into waters of the state.
    - (e) Provide sediment and erosion control sufficient to prevent or control sediment loss off of the property. This could include the use of straw bales, silt fences, or sediment basins, if needed, to comply with effluent limits.
  9. All paint, solvents, petroleum products and petroleum 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. Spill prevention, control, and/or management shall be provided sufficient to prevent any spills of these pollutants from entering a water 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.

C. SPECIAL CONDITIONS

10. Collection facilities shall be provided on-site, and arrangement made for proper disposal of waste products, including but not limited to petroleum waste products and solvents.
11. Good housekeeping practices shall be maintained on the site to keep solid waste from entry into waters of the state.
12. All fueling facilities present on the site shall adhere to applicable federal and state regulations concerning underground storage, above ground storage, and dispensers, including spill prevention, control and counter measures.
13. Substances regulated by federal law under the Resources 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.

## 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>
1V acrolein	1B	acenaphthene
2V acrylonitrile	2B	acenaphthylene
3V benzene	3B	anthracene
5V bromoform	4B	benzidine
6V carbon tetrachloride	5B	benzo(a)anthracene
7V chlorobenzene	6B	benzo(a)pyrene
8V chlorodibromomethane	7B	3,4-benzofluoranthene
9V chloroethane	8B	benzo(ghi)perylene
10V 2-chloroethylvinyl ether	9B	benzo(k)fluoranthene
11V chloroform	10B	bis(2-chloroethoxy)methane
12V dichlorobromomethane	11B	bis(2-chloroethyl)ether
14V 1,1-dichloroethane	12B	bis(2-chloroisopropyl)ether
15V 1,2-dichloroethane	13B	bis(2-ethylhexyl)phthalate
16V 1,1-dichloroethylene	14B	4-bromophenyl phenyl ether
17V 1,2-dichloropropane	15B	butylbenzyl phthalate
18V 1,3-dichloropropylene	16B	2-chloronaphthalene
19V ethylbenzene	17B	4-chlorophenyl phenyl ether
20V methyl bromide	18B	chrysene
21V methyl chloride	19B	dibenzo(a,h)anthracene
22V methylene chloride	20B	1,2-dichlorobenzene
23V 1,1,2,2-tetrachloroethane	21B	1,3-dichlorobenzene
24V tetrachloroethylene	22B	1,4-dichlorobenzene
25V toluene	23B	3,3'-dichlorobenzidine
26V 1,2-trans-dichloroethylene	24B	diethyl phthalate
27V 1,1,1-trichloroethane	25B	dimethyl phthalate
28V 1,1,2-trichloroethane	26B	di-n-butyl phthalate
29V trichloroethylene	27B	2,4-dinitrotoluene
31V vinyl chloride	28B	2,6-dinitrotoluene
29B di-n-octyl phthalate	30B	1,2-diphenylhydrazine (as azobenzene)
	32B	fluorene
	33B	hexachlorobenzene
	34B	hexachlorobutadiene
	35B	hexachlorocyclopentadiene
	36B	hexachloroethane
	37B	indeno(1,2,3-cd)pyrene
	38B	isophorone
	39B	naphthalene
	40B	nitrobenzene
	41B	N-nitrosodimethylamine
	42B	N-nitrosodi-n-propylamine
	43B	N-nitrosodiphenylamine
	44B	phenanthrene
	45B	pyrene
	46B	1,2,4-trichlorobenzene
<u>Acid Compounds</u>		
31B fluoranthene		
1A 2-chlorophenol		
2A 2,4-dichlorophenol		
3A 2,4-dimethylphenol		
4A 4,6-dinitro-o-cresol		
5A 2,4 dinitrophenol		
6A 2-nitrophenol		
7A 4-nitrophenol		
8A p-chloro-m-cresol		
9A pentachlorophenol		
10A phenol		
11A 2,4,6-trichlorophenol		

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Pesticides

1P aldrin  
2P alpha-BHC  
3P beta-BHC  
4P gamma-BHC  
5P delta-BHC  
6P chlordane  
7P 4,4'-DDT  
8P 4,4'-DDE  
9P 4,4'-DDD  
10P dieldrin  
11P alpha-endosulfan  
12P beta-endosulfan  
13P endosulfan sulfate  
14P endrin  
15P endrin aldehyde  
16P heptachlor  
17P heptachlor epoxide  
18P PCB-1242  
19P PCB-1254  
20P PCB-1221  
21P PCB-1232  
22P PCB-1248  
23P PCB-1260  
24P PCB-1016  
25P toxaphene

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 IV - Conventional and Nonconventional Pollutants Required to be  
Tested by Existing Dischargers if Expected to be Present

Bromide  
Chlorine, Total Residual  
Color  
Fecal Coliform  
Fluoride  
Nitrate-Nitrite  
Nitrogen, Total Organic  
Oil and Grease  
Phosphorus, Total  
Radioactivity  
Sulfate  
Sulfide  
Sulfite  
Surfactants  
Aluminum, Total  
Barium, Total  
Boron, Total  
Cobalt, Total  
Iron, Total  
Magnesium, Total  
Molybdenum, Total  
Manganese, Total  
Tin, Total  
Titanium, 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

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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)
Dichlobenil	propanoic acid]
Dichlone	Trichlorofan
2,2-Dichloropropionic acid	Triethanolamine dodecylbenzenesulfonate
Dichlorvos	Triethylamine
Diethyl amine	Trimethylamine
Dimethyl amine	Uranium
Dintrobenzene	Vanadium
Diquat Vinyl acetate	
Disulfoton	Xylene
Diuron Xylenol	
Epichlorohydrin	Zirconium
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  
Statement of Basis  
Detroit Tool Metal Products  
MSOP #: Mo-0136107  
Laclede County**

A Statement of Basis (Statement) gives pertinent information regarding the applicable regulations and rationale for the development of the NPDES Missouri State Operating Permit (operating permit). This Statement includes Wasteload Allocations, Water Quality Based Effluent Limitations, and Reasonable Potential Analysis calculations as well as any other calculations that effect the effluent limitations of this operating permit. This Statement does not pertain to operating permits that include sewage sludge land application plans and variance procedures, and does not include the public comment process for this operating permit.

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

**Part I – Facility Information**

Facility Type: (IND)  
Facility SIC Code(s): 3469

Facility Description: Ferrous and Nonferrous foundries, casting, extrusion, rolling, galvanizing and finishing, structural steel production, light metal fabrication, and electrical equipment manufacturing.

OUTFALL #001 - STORM WATER DISCHARGES ONLY.  
AVERAGE FLOW IS DEPENDENT ON PRECIPITATION.

**OUTFALL(S) TABLE:**

OUTFALL	DESIGN FLOW (CFS)	TREATMENT LEVEL	EFFLUENT TYPE	DISTANCE TO CLASSIFIED SEGMENT (MI)
001	dependent upon precipitation	Primary	Stormwater runoff	0.86

**Receiving Water Body’s Water Quality & Facility Performance History:**

New facility

Comments: The facility did have a MO-R203 permit. However it is within 1000 feet of a losing stream, therefore the general permit does not apply to them. The facility is too large to consider a no exposure and no discharge route.

**Part II – Operator Certification Requirements**

As per [10 CSR 20-6.010(8) Terms and Conditions of a Permit], permittees shall operate and maintain facilities to comply with the Missouri Clean Water Law and applicable permit conditions and regulations. Operators or supervisors of operations at regulated wastewater treatment facilities shall be certified in accordance with [10 CSR 20-9.020(2)] and any other applicable state law or regulation. As per [10 CSR 20-9.010(2)(A)], requirements for operation by certified personnel shall apply to all wastewater treatment systems, if applicable, as listed below:

Not Applicable ; This facility is 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 list 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 1<sup>st</sup> 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)].

#### **RECEIVING STREAM(S) TABLE:**

WATERBODY NAME	CLASS	WBID	DESIGNATED USES*	8-DIGIT HUC	EDU**
Unnamed Tributary to Dry Auglaize Creek	U		General Criteria, losing	10290109	Ozark / Osage
Dry Auglaize Creek			General Criteria, LWW, AQL, WBC-A, SCR, (losing)		

\* - Irrigation (IRR), Livestock & Wildlife Watering (LWW), Protection of Warm Water Aquatic Life and Human Health-Fish Consumption (AQL), Cool Water Fishery (CLF), Cold Water Fishery (CDF), Whole Body Contact Recreation (WBC), Secondary Contact Recreation (SCR), Drinking Water Supply (DWS), Industrial (IND).

\*\* - Ecological Drainage Unit

#### **RECEIVING STREAM(S) LOW-FLOW VALUES TABLE:**

RECEIVING STREAM (U, C, P)	LOW-FLOW VALUES (CFS)		
	1Q10	7Q10	30Q10
Unnamed Tributary to Dry Auglaize Creek	0	0	0

#### **MIXING CONSIDERATIONS**

Mixing Zone: Not Allowed [10 CSR 20-7.031(4)(A)4.B.(I)(a)].

Zone of Initial Dilution: Not Allowed [10 CSR 20-7.031(4)(A)4.B.(I)(b)].

### **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 :

If applicable, then please explain (i.e. this facility discharges to a Losing Stream, as defined by [10 CSR 20-2.010(36)] & [10 CSR 20-7.031(1)(N)])

**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.

**AREA-WIDE WASTE TREATMENT MANAGEMENT & CONTINUING AUTHORITY:**

As per [10 CSR 20-6.010(8)(A)10.], when a Continuing Authority under paragraph 10 CSR 20-6.010(3)(B)1. or 2. is expected to be available for connection within the next five (5) years, any operating permit issued to a permittee under this paragraph, located within the service area of the paragraph (3)(B)1. or 2. facility, shall contain the following special condition... This language is contained in Special Condition #3 of this operating permit.

**ANTIDegradation:**

Policies which 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 requirements are consistent with 40 CFR 131.12 that outlines methods used to assess activities that may impact the integrity of a water and protect existing uses. This policy may compel the state to maintain a level of water quality above those mandated by criteria.

- This facility must develop and implement a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP must include 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).

**APPLICABLE PERMIT PARAMETERS:**

Effluent parameters for conventional, non-conventional, and toxic pollutants have been obtained from the technology based effluent limits, water quality based limits, and from appropriate sections of the application.

**Bio-solids, Sludge, & Sewage Sludge:**

Bio-solids are solid materials resulting from wastewater treatment that meet federal and state criteria for beneficial uses (i.e. fertilizer). Sludge is any solid, semi-solid, or liquid waste generated from a municipal, commercial, or industrial wastewater treatment plant, water supply treatment plant, or air pollution control facility or any other such waste having similar characteristics and effect. Sewage sludge is solids, semi-solids, or liquid residue generated during the treatment of domestic sewage in a treatment works; including but not limited to, domestic septage; scum or solids removed in primary, secondary, or advanced wastewater treatment process; and a material derived from sewage sludge. Sewage sludge does not include ash generated during the firing of sewage sludge in a sewage sludge incinerator or grit and screening generated during preliminary treatment of domestic sewage in a treatment works.

Not Applicable

This condition is not applicable to the permittee for this specific facility.

**COMPLIANCE AND ENFORCEMENT:**

Action taken by the department to resolve violations of the Missouri Clean Water Law, its implementing regulations, and/or any terms and condition of an operating permit.

Not Applicable ;

The permittee/facility is not under enforcement action and is considered to be in compliance with the Missouri Clean Water Law, its implementing regulations, and/or any terms and condition of an operating permit.

**PRETREATMENT PROGRAM:**

The reduction of the amount of pollutants, the elimination of pollutants, or the alteration of the nature of pollutant properties in wastewater prior to or in lieu of discharging or otherwise introducing such pollutants into a Publicly Owned Treatment Works [40 CFR Part 403.3(q)].

Not Applicable ;

At this time, the permittee is not required to implement and enforce a Pretreatment Program.

**REASONABLE POTENTIAL ANALYSIS (RPA):**

Limitations must control all pollutants or pollutant parameters that are or may be discharged at a level which will cause, have reasonable potential to cause, or contribute to an excursion above the Missouri Water Quality Standards.

Not Applicable ;

A RPA was not conducted for this facility.

**REMOVAL EFFICIENCY:**

Removal efficiency is a method by which the Federal Regulations define Secondary Treatment and Equivalent to Secondary Treatment, which applies to Biochemical Oxygen Demand 5-day (BOD<sub>5</sub>) and Total Suspended Solids (TSS) for Publicly Owned Treatment Works (POTWs). Please see the United States Environmental Protection Agency's (EPA) website for interpretation of percent removal requirements for National Pollutant Discharge Elimination System Permit Application Requirements for Publicly Owned Treatment Works and Other Treatment Works Treating Domestic Sewage @ [www.epa.gov/fedrgstr/EPA-WATER/1999/August/Day-04/w18866.htm](http://www.epa.gov/fedrgstr/EPA-WATER/1999/August/Day-04/w18866.htm)

Not Applicable ;

This wastewater treatment facility is not a POTW. Influent monitoring is not being required to determine percent removal.

**SANITARY SEWER OVERFLOWS (SSOs), BYPASSES, INFLOW & INFILTRATION (I&I) – PREVENTION/REDUCTION:**

Sanitary Sewer Systems (SSSs) are municipal wastewater collection system that convey domestic, commercial, and industrial wastewater, and limited amounts of infiltrated groundwater and storm water (i.e. I&I), to a POTW. SSSs are not designed to collect large amounts of storm water runoff from precipitation events.

Untreated or partially treated discharges from SSSs are commonly referred to as SSOs. SSOs have a variety of causes including blockages, line breaks, sewer defects that allow excess storm water and ground water to overload the system, lapses in sewer system operation and maintenance, inadequate sewer design and construction, power failures, and vandalism. A SSOs is defined as an untreated or partially treated sewage release from a SSS. SSOs can occur at any point in an SSS, during dry weather or wet weather. SSOs include overflows that reach waters of the state. SSOs also include overflows out of manholes and onto city streets, sidewalks, and other terrestrial locations. SSSs can back up into buildings, including private residences. When sewage backups are caused by problems in the publicly-owned portion of an SSS, they are considered SSOs.

Not Applicable ;

This facility is not required to develop or implement a program for maintenance and repair of the collection system; however, it is a violation of Missouri State Environmental Laws and Regulations to allow untreated wastewater to discharge to waters of the state.

**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.

Not Applicable ;

This permit does not contain a SOC.

**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.

**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 to total amount of pollutant that may be discharged into that stream without endangering its water quality.

Not Applicable ;

Wasteload allocations were not calculated.

**WLA MODELING:**

Not Applicable ;

A WLA study was either not submitted or determined not applicable by department staff.

**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.

Not Applicable ;

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

**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

Not Applicable ;

This facility does not discharge to a 303(d) listed stream.

**Adjusted Design Flow:**

10 CSR 20-6.011(1)(B)1. provides for an Adjusted Design Flow when calculating permit fees on human sewage treatment facilities. If the average flow is sixty percent (60%) or less than the system’s design flow, the average flow may be substituted for the design flow when calculating the permit fee on human sewage treatment facilities. If the facility’s actual average flow is consistently 60% or less than the permitted design flow, the facility may qualify for a reduction in your fee when:

- The facility has a valid permit, or has applied for re-issuance, is in compliance with the terms, conditions and effluent limitations of the permit, and the facility has a good compliance history; and
- Flow is not expected to exceed 60% of design flow for the remaining term of the existing operating permit.

Not Applicable ;

At this time, the permittee has not requested an Adjusted Design Flow modification.

**Outfall #001 – Main Facility Outfall**

**EFFLUENT LIMITATIONS TABLE:**

PARAMETER	UNIT	BASIS FOR LIMITS	DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MODIFIED	PREVIOUS PERMIT LIMITATIONS
FLOW	GPD	1	*		*	N/A	N/A
CHEMICALS STORED OUTSIDE	MG/L	8	*		*	N/A	N/A
COD	MG/L	8	*		*	N/A	N/A
PH (S.U.)	SU	1	6.5 – 9.0		6.5 – 9.0	N/A	N/A
TOTAL SUSPENDED SOLIDS	MG/L	8	*		*	N/A	N/A
SS	ML/L/HR	8	1.0		0.5	N/A	N/A
IRON, TOTAL RECOVERABLE	µG/L	1	*		*	N/A	N/A
ALUMINUM, TOTAL RECOVERABLE	µG/L	8	*		*	N/A	N/A
RAINFALL	INCHES	8	*		*	N/A	N/A
MONITORING FREQUENCY	Please see Minimum Sampling and Reporting Frequency Requirements in the Derivation and Discussion Section below.						

**\* - Monitoring requirement only**

\*\*\* - # of colonies/100mL; the Monthly Average for Fecal Coliform is a geometric mean.

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

N/A – Not applicable

S – Same as previous operating permit

**Basis for Limitations Codes:**

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

**OUTFALL #001 – DERIVATION AND DISCUSSION OF LIMITS:**

**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 (TSS).**

–Monitoring requirement only. To determine if TSS will be an issue at this facility. Depending on the data, limits may be imposed or the parameter removed at the next renewal.

**Chemical Oxygen Demand (COD).** Monitoring only. To ensure there is not a oxygen issue for the receiving stream. Depending on the data, limits may be imposed or the parameter removed at the next renewal.

**Settable Solids (SS).**

–1.0 mg/L as a Daily Maximum and 0.5 mg/L as a Monthly Average. This limit is consistent with out facilities that discharge to losing streams.

**pH.**

– pH is limited to the range of 6.5 – 9.0 pH units, as per [10 CSR 20-7.031(4)(E)]. pH is measured in pH units and is not to be averaged.

**Aluminum, Total Recoverable** Monitoring requirement only to determine if there is reasonable potential for effluent limits

**Iron, Total Recoverable** Monitoring requirement only to determine if there is reasonable potential for effluent limits

**Minimum Sampling and Reporting Frequency Requirements.**

PARAMETER	SAMPLING FREQUENCY	REPORTING FREQUENCY
FLOW	ONCE/QUARTER	QUARTERLY
CHEMICALS STORED OUTSIDE	ONCE/QUARTER	QUARTERLY
PH (S.U.)	ONCE/QUARTER	QUARTERLY
COD	ONCE/QUARTER	QUARTERLY
TOTAL SUSPENDED SOLIDS	ONCE/QUARTER	QUARTERLY
SS	ONCE/QUARTER	QUARTERLY
IRON, TOTAL RECOVERABLE	ONCE/QUARTER	QUARTERLY
ALUMINUM, TOTAL RECOVERABLE	ONCE/QUARTER	QUARTERLY
RAINFALL	ONCE/QUARTER	QUARTERLY

**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.

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