

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-0000388

Owner: Leggett & Platt, Incorporated  
Address: 4614 Nash Road  
Cape Girardeau, MO 63701

Continuing Authority: Leggett & Platt, Incorporated  
Address: P.O. Box 1210  
Cape Girardeau, MO 63701

Facility Name: Leggett & Platt, Incorporated  
Facility Address: 4614 Nash Road  
Cape Girardeau, MO 63701

Legal Description: See page 2  
UTM Coordinates: See page 2

Receiving Stream: See page 2  
First Classified Stream and ID: See page 2  
USGS Basin & Sub-watershed No.: See page 2

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

FACILITY DESCRIPTION

See page 2

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.

November 1, 2012  
Effective Date

Sara Parker Pauley, Director, Department of Natural Resources

June 30, 2016  
Expiration Date

John Madras, Director, Water Protection Program

**FACILITY DESCRIPTION (continued)**

Outfall #001 – Industry - SIC #3069

This outfall consists of non-contact cooling water drawn from the property well & roof runoff. Water from this outfall flows into a man-made conveyance and runs along the south side of the diversion channel levy.

Legal Description: S ¼, NE ¼, Sec 27, T30N, R13E, Cape Girardeau County

UTM Coordinates: X= 803004, Y= 4127229

Receiving Stream: Unnamed Tributary to Ditch #1 (U)

First Classified Stream and ID: Ditch #1 (3052) (C)

USGS Basin & Sub-watershed No.: 08020204-0102

	<u>During Non-Rain Event</u>	<u>During Rain Event</u>
Maximum flow:	535,000 gallons per day	600,200 gallons per day
Average flow:	427,000 gallons per day	459,600 gallons per day
Minimum flow:	336,000 gallons per day	344,100 gallons per day

Outfall #002 – Industry – SIC#3069

Outfall #2 is a storm gutter from the roof of the building where there is partial collection of non-contact cooling water. Discharge from laboratory sink, laboratory equipment non-contact cooling water, & roof runoff all discharge to outfall #002. Estimated flow for laboratory sink & equipment is 25 GPD. Laboratory is used for physical, not chemical testing. Laboratory sink use is restricted to soap and water for hand and glass washing only.

Maximum flow: 3,600 gallons per day

Average flow: 1,350 gallons per day

Minimum flow: 440 gallons per day

Legal Description: S ¼, NE ¼, Sec 27, T30N, R13E, Cape Girardeau County

UTM Coordinates: X= 802885, Y= 4127234

Receiving Stream: Unnamed Tributary to Ditch #1 (U)

First Classified Stream and ID: Ditch #1 (3052) (C)

USGS Basin & Sub-watershed No.: 08020204-0102

Outfall #004 – Industry – SIC#3069

This outfall is an above ground storage tank spill containment berm. Rain water which accumulates in the containment berm is discharged after rain event. Storm water from this location is actually pumped out of the containment, through an oil/water separator and is discharged to the treatment facility with their domestic waste to discharge to tributary to Ditch #1.

Maximum flow: 2,400 gallons per day

Average flow: 1,200 gallons per day

Minimum flow: 300 gallons per day

Legal Description: S ¼, NE ¼, Sec 27, T30N, R13E, Cape Girardeau County

UTM Coordinates: X= 803011, Y= 4127220

Receiving Stream: Unnamed Tributary to Ditch #1 (U)

First Classified Stream and ID: Ditch #1 (3052) (C)

USGS Basin & Sub-watershed No.: 08020204-0102

Outfall #005 – Industry – SIC#3069

This outfall is storm water discharge from a railcar spill containment system. A poly lined pit filled with large rock is located beneath the rail car. Two pit wells have been installed to monitor the storm water which collects within the pit. Rain water which accumulates in the containment berm is discharged after a rain event. Wastewater from this containment system contains naphthenic process oil passes through an oil/water separator prior to discharge to tributary to Ditch #1.

Maximum flow: 6,280 gallons per day

Average flow: 3,140 gallons per day

Minimum flow: 790 gallons per day

Legal Description: S ¼, NE ¼, Sec 27, T30N, R13E, Cape Girardeau County

UTM Coordinates: X= 803011, Y= 4127220

Receiving Stream: Unnamed Tributary to Ditch #1 (U)

First Classified Stream and ID: Ditch #1 (3052)(C)

USGS Basin & Sub-watershed No.: 08020204-0102

**A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS**

PAGE NUMBER 3 of 13

PERMIT NUMBER MO-0000388

The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The interim effluent limitations shall become effective upon issuance and remain in effect until October 31, 2014. Such discharges shall be controlled, limited and monitored by the permittee as specified below:

OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	INTERIM EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
<u>Outfall #001</u>						
Flow	MGD	*		*	once/day	24 hr. estimate
Temperature	°F	*		*	once/day	grab
Temperature (Stream) (Note 1)	°F	*		*	once/day	grab
pH	SU	**		**	once/quarter***	grab
Total Suspended Solids (TSS)	mg/L	45		30	once/quarter***	grab
Biological Oxygen Demand (BOD <sub>5</sub> )	mg/L	45		30	once/quarter***	grab
Oil & Grease	mg/L	15		10	once/quarter***	grab
Hardness	mg/L	*		*	once/quarter***	grab
Total Arsenic	µg/L	*		*	once/quarter***	grab
Total Beryllium	µg/L	*		*	once/quarter***	grab
Chromium III	µg/L	*		*	once/quarter***	grab
Chromium IV	µg/L	*		*	once/quarter***	grab
Total Mercury	µg/L	*		*	once/quarter***	grab
Total Selenium	µg/L	*		*	once/quarter***	grab
Total Phenols	µg/L	*		*	once/quarter***	grab
Total Cyanide	µg/L	*		*	once/quarter***	grab
Total Cadmium	µg/L	*		*	once/quarter***	grab
Total Copper	µg/L	*		*	once/quarter***	grab
Total Lead	µg/L	*		*	once/quarter***	grab
Total Nickel	µg/L	*		*	once/quarter***	grab
Total Silver	µg/L	*		*	once/quarter***	grab
Total Zinc	µg/L	*		*	once/quarter***	grab
Ammonia as NH <sub>3</sub>	µg/L	*		*	once/quarter***	grab

MONITORING REPORTS SHALL BE SUBMITTED **QUARTERLY**; THE FIRST REPORT IS DUE JANUARY 28, 2013. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

<b>A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continuation)</b>				PAGE NUMBER 4 of 13		
				PERMIT NUMBER MO-0000388		
The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The interim effluent limitations shall become effective upon issuance and remain in effect until October 31, 2014. Such discharges shall be controlled, limited and monitored by the permittee as specified below:						
OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	INTERIM EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
<u>Outfall #001</u>						
Whole Effluent Toxicity (WET) Test	% Survival	See Special Conditions		once/year(December)	24-hr. composite****	
MONITORING REPORTS SHALL BE SUBMITTED <u>ANNUALLY</u> ; THE FIRST REPORT IS DUE <u>JANUARY 28, 2013</u> .						

**A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS**

PAGE NUMBER 5 of 13

PERMIT NUMBER MO-0000388

The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The interim effluent limitations shall become effective upon issuance and remain in effect until October 31, 2014. Such discharges shall be controlled, limited and monitored by the permittee as specified below:

OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	INTERIM EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
<u>Outfall #002</u>						
Flow	MGD	*		*	once/day	24 hr. estimate
pH	SU	**		**	once/quarter***	grab
Biological Oxygen Demand (BOD <sub>5</sub> )	mg/L	45		30	once/quarter***	grab
Total Suspended Solids (TSS)	mg/L	45		30	once/quarter***	grab
Oil & Grease	mg/L	15		10	once/quarter***	grab
Total Phenols	µg/L	*		*	once/quarter***	grab
Ammonia as NH <sub>3</sub>	µg/L	*		*	once/quarter***	grab
Hardness	mg/L	*		*	once/quarter***	grab
Total Arsenic	µg/L	*		*	once/quarter***	grab
Total Beryllium	µg/L	*		*	once/quarter***	grab
Chromium III	µg/L	*		*	once/quarter***	grab
Chromium IV	µg/L	*		*	once/quarter***	grab
Total Mercury	µg/L	*		*	once/quarter***	grab
Total Selenium	µg/L	*		*	once/quarter***	grab
Total Cyanide	µg/L	*		*	once/quarter***	grab
Total Cadmium	µg/L	*		*	once/quarter***	grab
Total Copper	µg/L	*		*	once/quarter***	grab
Total Lead	µg/L	*		*	once/quarter***	grab
Total Nickel	µg/L	*		*	once/quarter***	grab
Total Silver	µg/L	*		*	once/quarter***	grab
Total Zinc	µg/L	*		*	once/quarter***	grab

MONITORING REPORTS SHALL BE SUBMITTED **QUARTERLY**; THE FIRST REPORT IS DUE JANUARY 28, 2013. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

**A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS**

PAGE NUMBER 6 of 13

PERMIT NUMBER MO-0000388

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 November 1, 2014 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>						
Flow	MGD	*		*	once/day	24 hr. estimate
Temperature Cap (T <sub>cap</sub> )*****	°F	90°		90°	once/day	grab
Temperature (Stream) (Note 1)	°F	*		*	once/day	grab
pH	SU	**		**	once/quarter***	grab
Total Suspended Solids (TSS)	mg/L	45		30	once/quarter***	grab
Biological Oxygen Demand (BOD <sub>5</sub> )	mg/L	45		30	once/quarter***	grab
Oil & Grease	mg/L	15		10	once/quarter***	grab
Hardness	mg/L	*		*	once/quarter***	grab
Total Arsenic	µg/L	32.78		16.34	once/quarter***	grab
Total Beryllium	µg/L	*		*	once/quarter***	grab
Chromium III	µg/L	*		*	once/quarter***	grab
Chromium IV	µg/L	*		*	once/quarter***	grab
Total Mercury	µg/L	*		*	once/quarter***	grab
Total Selenium	µg/L	8.21		4.09	once/quarter***	grab
Total Phenols	µg/L	*		*	once/quarter***	grab
Total Cyanide	µg/L	8.21		4.09	once/quarter***	grab
Total Cadmium	µg/L	*		*	once/quarter***	grab
Total Copper	µg/L	*		*	once/quarter***	grab
Total Lead	µg/L	*		*	once/quarter***	grab
Total Nickel	µg/L	*		*	once/quarter***	grab
Total Silver	µg/L	*		*	once/quarter***	grab
Total Zinc	µg/L	*		*	once/quarter***	grab
Ammonia as NH <sub>3</sub>	µg/L	*		*	once/quarter***	grab

MONITORING REPORTS SHALL BE SUBMITTED **QUARTERLY**; THE FIRST REPORT IS DUE JANUARY 28, 2015. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

<b>A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continuation)</b>				PAGE NUMBER 7 of 13		
				PERMIT NUMBER MO-0000388		
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 November 1, 2014 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>						
Whole Effluent Toxicity (WET) Test	% Survival	See Special Conditions		once/year(December)	24-hr. composite****	
MONITORING REPORTS SHALL BE SUBMITTED ANNUALLY; THE FIRST REPORT IS DUE <u>JANUARY 28, 2015</u> .						

**A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS**

PAGE NUMBER 8 of 13

PERMIT NUMBER MO-0000388

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 November 1, 2014 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 #002</u>						
Flow	MGD	*		*	once/day	24 hr. estimate
pH	SU	**		**	once/quarter***	grab
Biological Oxygen Demand (BOD <sub>5</sub> )	mg/L	45		30	once/quarter***	grab
Total Suspended Solids (TSS)	mg/L	45		30	once/quarter***	grab
Oil & Grease	mg/L	15		10	once/quarter***	grab
Ammonia as NH <sub>3</sub>	µg/L	*		*	once/quarter***	grab
Hardness	mg/L	*		*	once/quarter***	grab
Total Arsenic	µg/L	32.78		16.34	once/quarter***	grab
Total Beryllium	µg/L	*		*	once/quarter***	grab
Chromium III	µg/L	*		*	once/quarter***	grab
Chromium IV	µg/L	*		*	once/quarter***	grab
Total Mercury	µg/L	*		*	once/quarter***	grab
Total Selenium	µg/L	8.21		4.09	once/quarter***	grab
Total Phenols	µg/L	*		*	once/quarter***	grab
Total Cyanide	µg/L	8.21		4.09	once/quarter***	grab
Total Cadmium	µg/L	*		*	once/quarter***	grab
Total Copper	µg/L	*		*	once/quarter***	grab
Total Lead	µg/L	*		*	once/quarter***	grab
Total Nickel	µg/L	*		*	once/quarter***	grab
Total Silver	µg/L	*		*	once/quarter***	grab
Total Zinc	µg/L	*		*	once/quarter***	grab

MONITORING REPORTS SHALL BE SUBMITTED **QUARTERLY**; THE FIRST REPORT IS DUE JANUARY 28, 2015. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

<b>A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS</b>				PAGE NUMBER 9 of 13		
				PERMIT NUMBER MO-0000388		
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 November 1, 2014 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>Outfalls #004 and #005</u>						
Flow	MGD	*		*	once/day	24 hr. estimate
pH	SU	**		**	once/quarter***	grab
Total Suspended Solids (TSS)	mg/L	100		50	once/quarter***	grab
Oil & Grease	mg/L	15		10	once/quarter***	grab
Total Petroleum Hydrocarbons	mg/L	*		*	once/quarter***	grab
Ammonia as NH <sub>3</sub>	µg/L	*		*	once/quarter***	grab
MONITORING REPORTS SHALL BE SUBMITTED <b>QUARTERLY</b> ; THE FIRST REPORT IS DUE <u>JANUARY 28, 2015</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</u> AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.						

Note 1: Temperature (Stream); the receiving stream's ambient temperature.

- \* Monitoring requirement only.
- \*\* 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.
- \*\*\* See table below for quarterly sampling.
- \*\*\*\* A 24-hour composite sample is composed of 48 aliquots (subsamples) collected at 30 minute intervals by an automatic sampling device.
- \*\*\*\*\* Effluent shall not elevate or depress the temperature of the receiving stream beyond the mixing zone more than five (5°) F. The stream Temperature beyond the mixing zone shall not exceed ninety (90°) F due to the effluent.

Minimum Sampling Requirements			
Quarter	Months	Effluent Parameters	Report is Due
First	January, February, March	Sample at least once during any month of the quarter	April 28 <sup>th</sup>
Second	April, May, June	Sample at least once during any month of the quarter	July 28th
Third	July, August, September	Sample at least once during any month of the quarter	October 28th
Fourth	October, November, December	Sample at least once during any month of the quarter	January 28th

### 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. Permittee will cease discharge by connection to a facility with an area-wide management plan per 10 CSR 20-6.010(3)(B) within 90 days of notice of its availability.

#### 4. 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.

#### 5. 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.

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

7. It is a violation of the Missouri Clean Water Law to fail to pay fees associated with this permit (644.055 RSMo).

**C. SPECIAL CONDITIONS (continuation)**

8. The permittee shall develop and implement a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP must be prepared within 30 days and implemented within 90 days of permit issuance. The SWPPP must be kept on-site and should not be sent to DNR unless specifically requested. The SWPPP must be reviewed and updated, if needed, every five (5) years or as site conditions change. 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) 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 #9 below.
  - (b) The SWPPP must include a schedule for twice per month site inspections and brief written reports. The inspections must include observation and evaluation of BMP effectiveness. Deficiencies must be corrected within seven (7) days and the actions taken to correct the deficiencies shall be included with the written report, including photographs. Any corrective measure that necessitates major construction may also need a construction permit. Inspection reports must be kept on site with the SWPPP and maintained for a period of five (5) years. These must be made available to DNR personnel upon request.
  - (c) A provision for designating an individual to be responsible for environmental matters.
  - (d) 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.
9. 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.
10. The purpose of the SWPPP and the BMPs listed herein is the prevention of pollution of waters of the state. A deficiency of a BMP means it was not effective in preventing pollution [10 CSR 20-2.010(56)] of waters of the state, and corrective actions means the facility took steps to eliminate the deficiency.
11. 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.
12. Before releasing water that has accumulated in secondary containment areas it must be examined for hydrocarbon odor and presence of sheen. When the presence of hydrocarbons is indicated, and at a minimum of once/quarter, this water must be tested for Total Petroleum Hydrocarbons (TPH). The suggested analytical method for testing TPH is non-Halogenated Organic by Gas Chromatography method 8015 (also known as OA1 and OA2). However, if the permittee so desires to use other approved testing methods (i.e. EPA 1664), they may do so. If the concentration for TPH exceeds 10mg/L, the water shall be taken to a WWTP for treatment.
13. Substances, regulated by federal law under the Resource Conservation and Recovery Act (RCRA) and Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), that are transported, stored, or used for maintenance, cleaning or repair, shall be managed according to RCRA and CERCLA.

**C. SPECIAL CONDITIONS (continuation)**

14. Whole Effluent Toxicity (WET) Test shall be conducted as follows:

SUMMARY OF ACUTE WET TESTING FOR THIS PERMIT				
OUTFALL	AEC	FREQUENCY	SAMPLE TYPE	MONTH
001	100%	Once/Year	24-hr. composite****	Any

\*\*\*\* A 24-hour composite sample is composed of 48 aliquots (subsamples) collected at 30 minute intervals by an automatic sampler.

Dilution Series							
AEC%	100% effluent	50% effluent	25% effluent	12.5% effluent	6.25% effluent	(Control) 100% upstream, if available	(Control) 100% Lab Water, also called synthetic water

(a) Test Schedule and Follow-Up Requirements

- (1) Perform a MULTIPLE-dilution acute WET test in the months and at the frequency specified above. For tests which are successfully passed, submit test results using the Department's WET test report form #MO-780-1899 along with complete copies of the test reports as received from the laboratory, including copies of chain-of-custody forms within 30 calendar days of availability to the WATER PROTECTION PROGRAM, P.O. Box 176, Jefferson City, MO 65102. If the effluent passes the test, do not repeat the test until the next test period.
  - (i) Chemical and physical analysis of the upstream control and effluent sample shall occur immediately upon being received by the laboratory, prior to any manipulation of the effluent sample beyond preservation methods consistent with federal guidelines for WET testing that are required to stabilize the sample during shipping.
  - (ii) Any and all chemical or physical analysis of the effluent sample performed in conjunction with the WET test shall be performed at the 100% Effluent concentration in addition to analysis performed upon any other effluent concentration.
  - (iii) All chemical analyses included in the Missouri Department of Natural Resources WET test report form #MO-780-1899 shall be performed and results shall be recorded in the appropriate field of the report form.
- (2) The WET test will be considered a failure if mortality observed in effluent concentrations equal to or less than the AEC is significantly different (at the 95% confidence level;  $p = 0.05$ ) than that observed in the upstream receiving-water control sample. Where upstream receiving water is not available, synthetic laboratory control water may be used.
- (3) All failing test results along with complete copies of the test reports as received from the laboratory, INCLUDING THOSE TESTS CONDUCTED UNDER CONDITION (3) BELOW, shall be reported to the WATER PROTECTION PROGRAM, P.O. Box 176, Jefferson City, MO 65102 within 14 calendar days of the availability of the results.
- (4) If the effluent fails the test for BOTH test species, a multiple dilution test shall be performed for BOTH test species within 30 calendar days and biweekly thereafter (for storm water, tests shall be performed on the next and subsequent storm water discharges as they occur, but not less than 7 days apart) until one of the following conditions are met: Note: Written request regarding single species multiple dilution accelerated testing will be address by THE WATER PROTECTION PROGRAM on a case by case basis.
  - (i) THREE CONSECUTIVE MULTIPLE-DILUTION TESTS PASS. No further tests need to be performed until next regularly scheduled test period.
  - (ii) A TOTAL OF THREE MULTIPLE-DILUTION TESTS FAIL.
- (5) Follow-up tests do not negate an initial failed test.
- (6) The permittee shall submit a summary of all test results for the test series along with complete copies of the test reports as received from the laboratory to the WATER PROTECTION PROGRAM, P.O. Box 176, Jefferson City, MO 65102 within 14 calendar days of the third failed test.

**C. SPECIAL CONDITIONS (continuation)**

- (7) Additionally, the following shall apply upon failure of the third follow up MULTIPLE DILUTION test. The permittee should contact THE WATER PROTECTION PROGRAM within 14 calendar days from availability of the test results to ascertain as to whether a TIE or TRE is appropriate. If the permittee does not contact THE WATER PROTECTION PROGRAM upon the third follow up test failure, a toxicity identification evaluation (TIE) or toxicity reduction evaluation (TRE) is automatically triggered. The permittee shall submit a plan for conducting a TIE or TRE to the WATER PROTECTION PROGRAM within 60 calendar days of the date of the automatic trigger or DNR's direction to perform either a TIE or TRE. This plan must be approved by DNR before the TIE or TRE is begun. A schedule for completing the TIE or TRE shall be established in the plan approval.
- (8) Upon DNR's approval, the TIE/TRE schedule may be modified if toxicity is intermittent during the TIE/TRE investigations. A revised WET test schedule may be established by DNR for this period.
- (9) If a previously completed TIE has clearly identified the cause of toxicity, additional TIEs will not be required as long as effluent characteristics remain essentially unchanged and the permittee is proceeding according to a DNR approved schedule to complete a TRE and reduce toxicity. Regularly scheduled WET testing as required in the permit, without the follow-up requirements, will be required during this period.
- (10) When WET test sampling is required to run over one DMR period, each DMR report shall contain a copy of the Department's WET test report form that was generated during the reporting period.
- (11) Submit a concise summary in tabular format of all WET test results with the annual report.

(b) Test Conditions

- (1) Test Type: Acute Static non-renewal
- (2) All tests, including repeat tests for previous failures, shall include both test species listed below unless approved by the department on a case by case basis.
- (3) Test species: Ceriodaphnia dubia and Pimephales promelas (fathead minnow). Organisms used in WET testing shall come from cultures reared for the purpose of conducting toxicity tests and cultured in a manner consistent with the most current USEPA guidelines. All test animals shall be cultured as described in the most current edition of Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms.
- (4) Test period: 48 hours at the "Allowable Effluent Concentration" (AEC) specified above.
- (5) Upstream receiving stream water shall be used as dilution water. If upstream water is unavailable or if mortality in the upstream water exceeds 10%, "reconstituted" water will be used as dilution water. Procedures for generating reconstituted water will be supplied by the MDNR upon request.
- (6) Tests will be run with 100% receiving-stream water (if available), collected upstream of the outfall at a point beyond any influence of the effluent, and reconstituted water.
- (7) If reconstituted-water control mortality for a test species exceeds 10%, the entire test will be rerun.
- (8) If upstream control mortality exceeds 10%, the entire test will be rerun using reconstituted water as the dilutant.
- (9) Whole-effluent-toxicity test shall be consistent with the most current edition of Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms

**D. SCHEDULE OF COMPLIANCE**

1. The permittee shall submit an annual report to the Southeast Regional Office stating the status of final effluent limitations compliance. Exceedance of these limitations suggests that the facility's BMP need to be adjusted to ensure that the final effluent limitations will be met.
2. The permittee shall be able to comply with the final effluent limitations set forth for all parameters in place as soon as possible or no later than two years from the issuance of the permit. If the permittee fails to meet the specified compliance schedule, the permittee shall notify the Department's Southeast Regional Office in writing of the reasons for non-compliance no later than 14 days following the interim date.

**Missouri Department of Natural Resources**  
**FACT SHEET**  
**FOR THE PURPOSE OF RENEWAL**  
**OF**  
**MO-0000388**  
**LEGGETT & PLATT, INCORPORATED**

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 an Industrial Facility.

**Part I – Facility Information**

Facility Type: IND  
Facility SIC Code(s): 3069

**Facility Description:**

The facility manufactures sponge rubber carpet cushion. The facility is currently permitted to discharge from 4 different outfalls. Outfall #001 is non-contact cooling water and roof run-off. No exhaust stacks are located in this roof runoff area. Water is received from a well on the property. This water is non-potable with very high iron content. Naturally occurring arsenic in groundwater is commonly released from iron oxide. This may likely be the source of trace arsenic detected in the test results. Outfall #002 is rainwater from the roof area over the laboratory, shipping dock, and warehouse. Also contains laboratory sink and equipment non-contact cooling water. Laboratory sink use is restricted to soap and water for hand and glass washing only. Outfall #003 is rainwater that accumulates in above ground storage tank spill containment structure. Area contains storage tanks for naphthenic process oil, No. 2 diesel, and used oil. Outfall #005 is stormwater in rail car spill containment structure. Rail cars are received containing naphthenic process oil. The waste oil water from water/oil separator is sent to West Kentucky Landfill where it is solidified and disposed of in landfill.

Have any changes occurred at this facility or in the receiving water body that effects effluent limit derivation?

- No.

Application Date: 09/23/11  
Expiration Date: 12/07/11  
Last Inspection: 03/11/11      In Compliance ;      Non-Compliance

**OUTFALL(S) TABLE:**

OUTFALL	DESIGN FLOW (CFS)*	TREATMENT LEVEL	EFFLUENT TYPE	DISTANCE TO CLASSIFIED SEGMENT (MI)
001	0.93	BMP	Stormwater	0.17
002	0.006	BMP	Industrial	0.17
004	0.004	Primary	Stormwater	0.17
005	0.01	Primary	Stormwater	0.17

\*Design Flow in cubic feet per second (cfs) is calculated using the facility's maximum flow.

Outfall #001 – Industry - SIC #3069

Legal Description: S ¼, NE ¼, Sec 27, T30N, R13E, Cape Girardeau County

UTM Coordinates: X= 803004, Y= 4127229

Receiving Stream: Unnamed Tributary to Ditch #1 (U)

First Classified Stream and ID: Ditch #1 (3052) (C)

USGS Basin & Sub-watershed No.: 08020204-0102

	<u>During Non-Rain Event</u>	<u>During Rain Event</u>
Maximum flow:	535,000 gallons per day	600,200 gallons per day
Average flow:	427,000 gallons per day	459,600 gallons per day
Minimum flow:	336,000 gallons per day	344,100 gallons per day

Outfall #002 – Industry – SIC#3069

Maximum flow: 3,600 gallons per day

Average flow: 1,350 gallons per day

Minimum flow: 440 gallons per day

Legal Description: S ¼, NE ¼, Sec 27, T30N, R13E, Cape Girardeau County

UTM Coordinates: X= 802885, Y= 4127234

Receiving Stream: Unnamed Tributary to Ditch #1 (U)

First Classified Stream and ID: Ditch #1 (3052) (C)

USGS Basin & Sub-watershed No.: 08020204-0102

Outfall #004 – Industry – SIC#3069

Maximum flow: 2,400 gallons per day

Average flow: 1,200 gallons per day

Minimum flow: 300 gallons per day

Legal Description: S ¼, NE ¼, Sec 27, T30N, R13E, Cape Girardeau County

UTM Coordinates: X= 803011, Y= 4127220

Receiving Stream: Unnamed Tributary to Ditch #1 (U)

First Classified Stream and ID: Ditch #1 (3052) (C)

USGS Basin & Sub-watershed No.: 08020204-0102

Outfall #005 – Industry – SIC#3069

Maximum flow: 6,280 gallons per day

Average flow: 3,140 gallons per day

Minimum flow: 790 gallons per day

Legal Description: S ¼, NE ¼, Sec 27, T30N, R13E, Cape Girardeau County

UTM Coordinates: X= 803011, Y= 4127220

Receiving Stream: Unnamed Tributary to Ditch #1 (U)

First Classified Stream and ID: Ditch #1 (3052)(C)

USGS Basin & Sub-watershed No.: 08020204-0102

Receiving Water Body's Water Quality & Facility Performance History:

No impairment has been found on record on the receiving water body.

Comments:

The five-year discharge monitoring report (DMR) of Leggett & Platt, Inc. has shown no limitations exceedance (12/8/06-12/7-11). However, the expanded effluent testing provided for permit renewal showed concentrations of pollutants that have applicable Water Quality Standards. Additionally, WET Testing effluent limitations for specific parameters and pollutants monitoring were added to the new permit to ensure protection of water quality. The facility uses non-potable well water on their operations and this groundwater is believed to be the source of naturally occurring contaminants detected on the effluent testing the facility provided during permit renewal.

**Part II – Operator Certification Requirements**

As per [10 CSR 20-6.010(8) Terms and Conditions of a Permit], permittee 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 20-9.020(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 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 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*	12-DIGIT HUC**
Unnamed Tributary to Ditch #1	U	n/a	General Criteria	08020204-0102
Ditch #1	C	3052	IRR, LWW, AQL, WBC-B, SCR	

\* - 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), Groundwater (GRW).

\*\* Hydrological Unit Code

**RECEIVING STREAM(S) LOW-FLOW**

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.

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.

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

### **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.

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

As per [10 CSR 20-6.010(3)(B)], ...An applicant may utilize a lower preference continuing authority by submitting, as part of the application, a statement waiving preferential status from each existing higher preference authority, providing the waiver does not conflict with any area-wide management plan approved under section 208 of the Federal Clean Water Act or any other regional sewage service and treatment plan approved for higher preference authority by the Department.

### **BIOSOLIDS & SEWAGE SLUDGE:**

Biosolids are solid materials resulting from domestic wastewater treatment that meet federal and state criteria for beneficial uses (i.e. fertilizer). 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. Additional information regarding biosolids and sludge is located at the following web address:

<http://dnr.mo.gov/env/wpp/pub/index.html>, items WQ422 through WQ449.

Not applicable;

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

### **COMPLIANCE AND ENFORCEMENT:**

Enforcement is the action taken by the Water Protection Program (WPP) to bring an entity into compliance with the Missouri Clean Water Law, its implementing regulations, and/or any terms and conditions of an operating permit. The primary purpose of the enforcement activity in the WPP is to resolve violations and return the entity to compliance.

Not Applicable;

The permittee/facility is not currently under Water Protection Program enforcement action.

**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)].

Pretreatment programs are required at any POTW (or combination of POTW operated by the same authority) and/or municipality with a total design flow greater than 5.0 MGD and receiving industrial wastes that interfere with or pass through the treatment works or are otherwise subject to the pretreatment standards. Pretreatment programs can also be required at POTWs/municipals with a design flow less than 5.0 MGD if needed to prevent interference with operations or pass through.

Several special conditions pertaining to the permittee's pretreatment program may be included in the permit, and are as follows:

- Implementation and enforcement of the program,
- Annual pretreatment report submittal,
- Submittal of list of industrial users,
- Technical evaluation of need to establish local limitations, and
- Submittal of the results of the evaluation

Not Applicable;

The permittee, at this time, is not required to have a Pretreatment Program or does not have an approved pretreatment program.

**REASONABLE POTENTIAL ANALYSIS (RPA):**

Federal regulation [40 CFR Part 122.44(d)(1)(i)] requires effluent limitations for all pollutants that are or may be discharged at a level that will cause or have the reasonable potential to cause or contribute to an in-stream excursion above narrative or numeric water quality standard.

In accordance with [40 CFR Part 122.44(d)(iii)] if the permit writer determines that any give pollutant has the reasonable potential to cause, or contribute to an in-stream excursion above the WQS, the permit must contain effluent limits for that pollutant.

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)/municipals.

Not Applicable;

Influent monitoring is not being required to determine percent removal.

**SANITARY SEWER OVERFLOWS (SSO) AND INFLOW AND INFILTRATION (I&I):**

Sanitary Sewer Overflows (SSOs) are defined as an untreated or partially treated sewage release are considered bypassing under state regulation [10 CSR 20-2.010(11)] and should not be confused with the federal definition of bypass. SSO's have a variety of causes including blockages, line breaks, and sewer defects that allow excess storm water and ground water to (1) enter and overload the collection system, and (2) overload the treatment facility. Additionally, SSO's can be also be caused by lapses in sewer system operation and maintenance, inadequate sewer design and construction, power failures, and vandalism. SSOs also include overflows out of manholes and onto city streets, sidewalks, and other terrestrial locations.

Additionally, Missouri RSMo §644.026.1 mandates that the Department require proper maintenance and operation of treatment facilities and sewer systems and proper disposal of residual waste from all such facilities.

- 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.

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)]. The permittee must be able to comply with effluent limitations no later than two years from the date of permit issuance.

**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.

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.

**VARIANCE:**

As per the Missouri Clean Water Law § 644.061.4, variances shall be granted for such period of time and under such terms and conditions as shall be specified by the commission in its order. The variance may be extended by affirmative action of the commission. In no event shall the variance be granted for a period of time greater than is reasonably necessary for complying with the Missouri Clean Water Law §§644.006 to 644.141 or any standard, rule or regulation promulgated pursuant to Missouri Clean Water Law §§644.006 to 644.141.

Not Applicable;

This operating permit is not drafted under premises of a petition for variance.

**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:

$$C = \frac{(Cs \times Qs) + (Ce \times Qe)}{(Qe + Qs)} \quad (\text{EPA/505/2-90-001, Section 4.5.5})$$

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).

Number of Samples "n":

Additionally, in accordance with the TSD for water quality-based permitting, effluent quality is determined by the underlying distribution of daily values, which is determined by the Long Term Average (LTA) associated with a particular Wasteload Allocation (WLA) and by the Coefficient of Variation (CV) of the effluent concentrations. Increasing or decreasing the monitoring frequency does not affect this underlying distribution or treatment performance, which should be, at a minimum, be targeted to comply with the values dictated by the WLA. Therefore, it is recommended that the actual planned frequency of monitoring normally be used to determine the value of "n" for calculating the AML. However, in situations where monitoring frequency is once per month or less, a higher value for "n" must be assumed for AML derivation purposes. Thus, the statistical procedure being employed using an assumed number of samples is "n = 4" at a minimum. For Total Ammonia as Nitrogen, "n = 30" is used.

**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.

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.

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 is 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 has Water Quality-based Effluent Limitations for toxic substances (other than NH<sub>3</sub>)

Acute and/or Chronic Allowable Effluent Concentrations (AECs) for facilities that discharge to unclassified, Class C, Class P (with default Mixing Considerations), or Lakes [10 CSR 20-7.031(4)(A)4.B.(IV)(b)] are 100%, 50%, 25%, 12.5%, & 6.25%.

$$\text{Acute AEC\%} = ((0.66 + 0) / 0.66)^{-1} \times 100 = \mathbf{100\%}$$

**40 CFR 122.41(M) - BYPASSES:**

The federal Clean Water Act (CWA), Section 402 prohibits wastewater dischargers from “bypassing” untreated or partially treated sewage (wastewater) beyond the headworks. A bypass, which includes blending, is defined as an intentional diversion of waste streams from any portion of a treatment facility, [40 CFR 122.41(m)(1)(i)]. Additionally, Missouri regulation 10 CSR 20-2.010(11) defines a bypass as the diversion of wastewater from any portion of wastewater treatment facility or sewer system to waters of the state. Only under exceptional and specified limitations do the federal regulations allow for a facility to bypass some or all of the flow from its treatment process. Bypasses are prohibited by the CWA unless a permittee can meet all of the criteria listed in 40 CFR 122.41(m)(4)(i)(A), (B), & (C). Any bypasses from this facility are subject to the reporting required in 40 CFR 122.41(l)(6) and per Missouri’s Standard Conditions I, Section B, part 2.b. Additionally, Anticipated Bypasses include bypasses from peak flow basins or similar devices designed for peak wet weather flows.

Not Applicable;

This facility does not bypass.

**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.

**Part V – Effluent Limits Determination**

**FINAL EFFLUENT LIMITATIONS TABLE: OUTFALL #001**

PARAMETER	UNIT	BASIS FOR LIMITS	DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MODIFIED	PREVIOUS PERMIT LIMITATIONS
FLOW	MGD	1	*		*	NO	*
PH	SU	1	6.5-9.0		6.5-9.0	YES	6.0-9.0
BIOLOGICAL OXYGEN DEMAND (BOD <sub>5</sub> )	MG/L	9	45		30	NO	45/30
OIL AND GREASE	MG/L	1,3	15		10	NO	15/10
TEMPERATURE	°F	1	*		*	NO	*
TEMPERATURE CAP**	°F	1	90°		90°	NEW	***
HARDNESS	MG/L	9	*		*	NEW	***
TOTAL ARSENIC	µG/L	3	32.78		16.34	NEW	***
TOTAL BERYLLIUM	µG/L	3	*		*	NEW	***
CHROMIUM IV	µG/L	3	*		*	NEW	***
TOTAL MERCURY	µG/L	3	*		*	NEW	***
TOTAL SELENIUM	µG/L	3	8.21		4.09	NEW	***
TOTAL PHENOLS	µG/L	3	*		*	NEW	***
TOTAL CYANIDE	µG/L	3	8.21		4.09	NEW	***
CHROMIUM III	µG/L	3	*		*	NEW	***
TOTAL CADMIUM	µG/L	3	*		*	NEW	***
TOTAL COPPER	µG/L	3	*		*	NEW	***
TOTAL LEAD	µG/L	3	*		*	NEW	***
TOTAL NICKEL	µG/L	3	*		*	NEW	***
TOTAL SILVER	µG/L	3	*		*	NEW	***
TOTAL ZINC	µG/L	3	*		*	NEW	***
AMMONIA AS NH <sub>3</sub>	µG/L	3,6	*		*	NEW	***
TOTAL SUSPENDED SOLIDS (TSS)	MG/L	9	45		30	NO	45/30
WET TEST	% AEC	11	*		*	NEW	***

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

- **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.
- **pH.** In accordance with [10 CSR 20-7.031(4)(E)], pH shall be maintained in the range from six and one-half to nine (6.5-9.0) standard units.
- **Biochemical Oxygen Demand (BOD<sub>5</sub>).** Effluent limitations from the previous state operating permit have been reassessed and verified that they are still protective of the receiving stream’s Water Quality. This limitation is based on Best Professional Judgment to ensure compliance of the General Water Quality Criteria [10 CSR 20-7.031(3)].
- **Oil & Grease.** In accordance with [10 CSR 20-7.031 (Table A)], the conventional pollutant, effluent limitation for protection of aquatic life; 10 mg/L monthly average, 15 mg/L daily maximum.
- **Temperature Cap (T<sub>cap</sub>).** In accordance with 10 CSR 20-7.031(4)(D)5., this facility shall not exceed the monthly temperature criteria established of 90°F. T<sub>cap</sub> is calculated as follows:

$$T_{cap} = [((Q_s/4)T_s + Q_eT_e) / ((Q_s/4) + Q_e)]$$

Where,

$Q_s/4$  = the receiving stream flow in cfs divided by 4 or the flow represented in the cross-sectional area of the receiving stream divided by 4 in accordance with [10 CSR 20-7.031(4)(D)6.]

$Q_e$  = Effluent Flow.

$T_s$  = Receiving stream's ambient temperature. A facility's intake temperature can be used for this parameter if the facility believes that it is representative of the receiving stream's actual temperature.

$T_e$  = Temperature of the Effluent.

- **Hardness.** Several of the pollutants with detectable concentrations on the expanded effluent testing that were provided are hardness dependent. It is important to note that after the beginning of a storm event, the hardness of a stream typically decreases, depending on the intensity and duration of the storm. As the hardness of the stream decreases, the water quality criteria of some metals change and the toxicity of these metals increases. Therefore, in order to calculate a waste load allocation (WLA) for these pollutants, hardness of the discharged water must be obtained for the next permit cycle to ensure that the water of the state is protected at all times.
- **Total Arsenic.** Effluent testing from the facility showed a concentration of Arsenic (**25 µg/L**) that could cause an exceedance of the WQS General Criteria for toxicity to aquatic life. Therefore, total arsenic effluent limitation has been established. Protection of Aquatic Life = 20 µg/L [10 CSR 20-7.031, Table A].

Chronic WLA:  $C_e = ((0.93 \text{ cfs} + 0.0)20 \text{ µg/L} - (0.0 * 0.0))/0.93 \text{ cfs}$   
 $C_e = 20 \text{ µg/L}$

$LTA_c = 20 (0.527) = 10.54 \text{ µg/L}$  [CV = 0.6, 99<sup>th</sup> Percentile]

MDL = 10.54 (3.11) = 32.78 µg/L [CV = 0.6, 99<sup>th</sup> Percentile]  
AML = 10.54 (1.55) = 16.34 µg/L [CV = 0.6, 95<sup>th</sup> Percentile, n = 4]

Total Arsenic effluent limits: **32.78 µg/L** daily maximum and **16.34 µg/L** monthly average limits have been established.

- **Total Selenium.** Effluent testing from the facility showed a concentration of total selenium (**10 µg/L**) that could cause an exceedance of the WQS General Criteria for toxicity to aquatic life. Therefore, total selenium effluent limitation has been established. Protection of Aquatic Life <sub>chronic</sub> = 5 µg/L [10 CSR 20-7.031, Table A].

Chronic WLA:  $C_e = ((0.93 \text{ cfs} + 0.0)5 \text{ µg/L} - (0.0 * 0.0))/0.93 \text{ cfs}$   
 $C_e = 5 \text{ µg/L}$

$LTA_c = 5 (0.527) = 2.64 \text{ µg/L}$  [CV = 0.6, 99<sup>th</sup> Percentile]

MDL = 2.64 (3.11) = 8.21 µg/L [CV = 0.6, 99<sup>th</sup> Percentile]  
AML = 2.64 (1.55) = 4.09 µg/L [CV = 0.6, 95<sup>th</sup> Percentile, n = 4]

Total Selenium effluent limits: **8.21 µg/L** daily maximum and **4.09 µg/L** monthly average.

- **Total Cyanide.** Effluent testing from the facility indicated a concentration of total cyanide (**5 µg/L**) that could cause an exceedance of the WQS General Criteria for toxicity to aquatic life. Protection of Aquatic Life <sub>acute</sub> = 22 µg/L [10 CSR 20-7.031, Table A] and Protection of Aquatic Life <sub>chronic</sub> = 5 µg/L [10 CSR 20-7.031, Table A].

Chronic WLA:  $C_e = ((0.006 \text{ cfs} + 0.0)5 \text{ µg/L} - (0.0 * 0.0))/0.006 \text{ cfs}$   
 $C_e = 5 \text{ µg/L}$

Acute WLA:  $C_e = ((0.006 \text{ cfs} + 0.0)22 \text{ µg/L} - (0.0 * 0.0))/0.006 \text{ cfs}$   
 $C_e = 22 \text{ µg/L}$

$LTA_c = 5 (0.527) = 2.64 \text{ µg/L}$  [CV = 0.6, 99<sup>th</sup> Percentile]  
 $LTA_a = 22 (0.321) = 7.06 \text{ µg/L}$  [CV = 0.6, 99<sup>th</sup> Percentile]

MDL = 2.64 (3.11) = 8.21 µg/L  
AML = 2.64 (1.55) = 4.09 µg/L

[CV = 0.6, 99<sup>th</sup> Percentile]  
[CV = 0.6, 95<sup>th</sup> Percentile, n = 4]

Total Cyanide effluent limits: **8.21 µg/L** daily maximum and **4.09 µg/L** monthly average.

- **Total Phenols, Mercury, Chromium IV, Total Beryllium, Chromium III, Cd, Cu, Pb, Ni, Ag, and Zn.** The expanded effluent testing detected concentrations of total phenols, mercury, chromium IV, total beryllium, chromium III, cadmium, copper, lead, nickel, silver, and zinc; therefore, a monitoring requirement has been established for these pollutants. Monitoring these pollutants for the next permit cycle will determine if reasonable potential exists to exceed water quality standards.
- **Ammonia as NH<sub>3</sub>.** The expanded effluent testing detected varying amounts of ammonia. There is a water quality standard for this pollutant therefore, an ammonia monitoring requirement has been established during application. Data from the previous permit cycle was insufficient to perform a reasonable potential analysis.
- **Total Suspended Solids (TSS).** Effluent limitations from the previous state operating permit have been reassessed and verified that they are still protective of the receiving stream's Water Quality. This limitation is based on Best Professional Judgment to ensure compliance of the General Water Quality Criteria [10 CSR 20-7.031(3)].
- **WET Test.** WET Testing schedules and intervals are established in accordance with the Department's Permit Manual; Section 5.2 *Effluent Limits / WET Testing for Compliance Bio-monitoring*. It is recommended that WET testing be conducted during the period of lowest stream flow.
  - Acute
  - No less than **ONCE/YEAR:**
    - Facility has Water Quality-based effluent limitations for toxic substances (other than NH<sub>3</sub>).

The facility's expanded effluent testing showed traces of metals and other pollutants that have water quality criteria. Although all four of the facility's WET Test results showed 0% mortality, the presence of pollutants having reasonable potential to exceed the water quality criteria substantiates the need to keep the WET Test parameter for this operating permit.

Acute AEC% =  $((0.93 \text{ cfs} + 0.0) / 0.93 \text{ cfs})^{-1}] \times 100 = 100\%$

**FINAL EFFLUENT LIMITATIONS TABLE: OUTFALL #002**

PARAMETER	UNIT	BASIS FOR LIMITS	DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MODIFIED	PREVIOUS PERMIT LIMITATIONS
FLOW	MGD	1	*		*	NO	*
pH	SU	1	6.5-9.0		6.5-9.0	YES	6.0-9.0
OIL AND GREASE	MG/L	1,3	15		10	NO	15/10
TOTAL PHENOLS	µG/L	3	*		*	NEW	***
AMMONIA AS NH <sub>3</sub>	µG/L	2,6	*		*	NEW	***
HARDNESS	MG/L	9	*		*	NEW	***
TOTAL ARSENIC	µG/L	2	32.78		16.34	NEW	***
TOTAL BERYLLIUM	µG/L	3	*		*	NEW	***
CHROMIUM IV	µG/L	3	*		*	NEW	***
TOTAL MERCURY	µG/L	3	*		*	NEW	***
TOTAL SELENIUM	µG/L	3	8.21		4.09	NEW	***
TOTAL CYANIDE	µG/L	3	8.21		4.09	NEW	***
CHROMIUM III	µG/L	3	*		*	NEW	***
TOTAL CADMIUM	µG/L	3	*		*	NEW	***
TOTAL COPPER	µG/L	3	*		*	NEW	***
TOTAL LEAD	µG/L	3	*		*	NEW	***
TOTAL NICKEL	µG/L	3	*		*	NEW	***
TOTAL SILVER	µG/L	3	*		*	NEW	***
TOTAL ZINC	µG/L	3	*		*	NEW	***
TOTAL SUSPENDED SOLIDS (TSS)	MG/L	9	45		30	NO	45/30
BIOLOGICAL OXYGEN DEMAND (BOD <sub>5</sub> )	MG/L	9	45		30	NO	45/30

## DERIVATION AND DISCUSSION OF LIMITS: OUTFALL #002

- **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.
- **pH.** In accordance with [10 CSR 20-7.031(4)(E)], pH shall be maintained in the range from six and one-half to nine (6.5-9.0) standard units.
- **Oil & Grease.** In accordance with [10 CSR 20-7.031 (Table A)], the conventional pollutant, effluent limitation for protection of aquatic life; 10 mg/L monthly average, 15 mg/L daily maximum.
- **Ammonia as NH<sub>3</sub>.** The expanded effluent testing detected amounts of ammonia. There is a water quality standard for this pollutant therefore, an ammonia monitoring requirement has been established during application. Data from the previous permit cycle was insufficient to perform a reasonable potential analysis.
- **Hardness.** Several of the pollutants with detectable concentrations on the expanded effluent testing that were provided are hardness dependent. It is important to note that after the beginning of a storm event, the hardness of a stream typically decreases, depending on the intensity and duration of the storm. As the hardness of the stream decreases, the water quality criteria of some metals change and the toxicity of these metals increases. Therefore, in order to calculate a waste load allocation (WLA) for these pollutants, hardness of the discharged water must be obtained for the next permit cycle to ensure that the water of the state is protected at all times.
- **Total Arsenic.** Effluent testing from the facility showed a concentration of Arsenic (**25 µg/L**) that could cause an exceedance of the WQS General Criteria for toxicity to aquatic life. Therefore, total arsenic effluent limitation has been established. Protection of Aquatic Life = 20 µg/L [10 CSR 20-7.031, Table A].

$$\text{Chronic WLA: } C_e = ((0.006 \text{ cfs} + 0.0)20 \text{ µg/L} - (0.0 * 0.0))/0.006 \text{ cfs}$$
$$C_e = 20 \text{ µg/L}$$

$$\text{LTA}_c = 20 (0.527) = 10.54 \text{ µg/L} \quad [\text{CV} = 0.6, 99^{\text{th}} \text{ Percentile}]$$

$$\text{MDL} = 10.54 (3.11) = 32.78 \text{ µg/L} \quad [\text{CV} = 0.6, 99^{\text{th}} \text{ Percentile}]$$

$$\text{AML} = 10.54 (1.55) = 16.34 \text{ µg/L} \quad [\text{CV} = 0.6, 95^{\text{th}} \text{ Percentile}, n = 4]$$

Total Arsenic effluent limits: **32.78 µg/L** daily maximum and **16.34 µg/L** monthly average limits have been established.

- **Total Selenium.** Effluent testing from the facility showed a concentration of total selenium (**10 µg/L**) that could cause an exceedance of the WQS General Criteria for toxicity to aquatic life. Therefore, total selenium effluent limitation has been established. Protection of Aquatic Life  $_{\text{chronic}} = 5 \text{ µg/L}$  [10 CSR 20-7.031, Table A].

$$\text{Chronic WLA: } C_e = ((0.006 \text{ cfs} + 0.0)5 \text{ µg/L} - (0.0 * 0.0))/0.006 \text{ cfs}$$
$$C_e = 5 \text{ µg/L}$$

$$\text{LTA}_c = 5 (0.527) = 2.64 \text{ µg/L} \quad [\text{CV} = 0.6, 99^{\text{th}} \text{ Percentile}]$$

$$\text{MDL} = 2.64 (3.11) = 8.21 \text{ µg/L} \quad [\text{CV} = 0.6, 99^{\text{th}} \text{ Percentile}]$$

$$\text{AML} = 2.64 (1.55) = 4.09 \text{ µg/L} \quad [\text{CV} = 0.6, 95^{\text{th}} \text{ Percentile}, n = 4]$$

Total Selenium effluent limits: **8.21 µg/L** daily maximum and **4.09 µg/L** monthly average.

- **Total Cyanide.** Effluent testing from the facility indicated a concentration of total cyanide (**5 µg/L**) that could cause an exceedance of the WQS General Criteria for toxicity to aquatic life. Protection of Aquatic Life  $_{\text{acute}} = 22 \text{ µg/L}$  [10 CSR 20-7.031, Table A] and Protection of Aquatic Life  $_{\text{chronic}} = 5 \text{ µg/L}$  [10 CSR 20-7.031, Table A].

Chronic WLA:  $C_e = ((0.006 \text{ cfs} + 0.0)5 \mu\text{g/L} - (0.0 * 0.0))/0.006 \text{ cfs}$   
 $C_e = 5 \mu\text{g/L}$

Acute WLA:  $C_e = ((0.006 \text{ cfs} + 0.0)22 \mu\text{g/L} - (0.0 * 0.0))/0.006 \text{ cfs}$   
 $C_e = 22 \mu\text{g/L}$

$LTA_c = 5 (0.527) = 2.64 \mu\text{g/L}$  [CV = 0.6, 99<sup>th</sup> Percentile]  
 $LTA_a = 22 (0.321) = 7.06 \mu\text{g/L}$  [CV = 0.6, 99<sup>th</sup> Percentile]

$MDL = 2.64 (3.11) = 8.21 \mu\text{g/L}$  [CV = 0.6, 99<sup>th</sup> Percentile]  
 $AML = 2.64 (1.55) = 4.09 \mu\text{g/L}$  [CV = 0.6, 95<sup>th</sup> Percentile, n = 4]

Total Cyanide effluent limits: **8.21 µg/L** daily maximum and **4.09 µg/L** monthly average.

- **Total Phenols, Mercury, Chromium IV, Total Beryllium, Chromium III, Cd, Cu, Pb, Ni, Ag, and Zn.** The expanded effluent testing detected concentrations of total phenols, mercury, chromium IV, total beryllium, cadmium, copper, lead, nickel, silver, and zinc; therefore, a monitoring requirement has been established for these pollutants. Monitoring these pollutants for the next permit cycle will determine if reasonable potential exists to exceed water quality standards.
- **Total Suspended Solids (TSS).** Effluent limitations from the previous state operating permit have been reassessed and verified that they are still protective of the receiving stream's Water Quality. This limitation is based on Best Professional Judgment to ensure compliance of the General Water Quality Criteria [10 CSR 20-7.031(3)].
- **Biochemical Oxygen Demand (BOD<sub>5</sub>).** Effluent limitations from the previous state operating permit have been reassessed and verified that they are still protective of the receiving stream's Water Quality. This limitation is based on Best Professional Judgment to ensure compliance of the General Water Quality Criteria [10 CSR 20-7.031(3)].

**EFFLUENT LIMITATIONS TABLE: OUTFALLS #004 & #005**

PARAMETER	UNIT	BASIS FOR LIMITS	DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MODIFIED	PREVIOUS PERMIT LIMITATIONS
FLOW	MGD	1	*		*	NO	*
pH	SU	1	6.5-9.0		6.5-9.0	YES	6.0-9.0
TOTAL SUSPENDED SOLIDS (TSS)	MG/L	9	45		30	NO	45/30
OIL & GREASE	MG/L	1,3	15		10	NO	15/10
TOTAL PETROLEUM HYDROCARBONS	MG/L	9	*		*	NO	*
AMMONIA AS NH <sub>3</sub>	µG/L	2,6	*		*	NEW	***

- \* Monitoring requirement only.
- \*\* Effluent shall not elevate or depress the temperature of the receiving stream beyond the mixing zone more than five (5°) F. The stream temperature beyond the mixing zone shall not exceed ninety (90°) F due to the effluent.
- \*\*\* 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. Antidegradation Review                |                                    |

## **DERIVATION AND DISCUSSION OF LIMITS: OUTFALL #004 & #005**

- **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.
- **pH.** In accordance with [10 CSR 20-7.031(4)(E)], pH shall be maintained in the range from six and one-half to nine (6.5-9.0) standard units.
- **Total Suspended Solids (TSS).** Effluent limitations from the previous state operating permit have been reassessed and verified that they are still protective of the receiving stream's Water Quality. This limitation is based on Best Professional Judgment to ensure compliance of the General Water Quality Criteria [10 CSR 20-7.031(3)].
- **Oil & Grease.** In accordance with [10 CSR 20-7.031 (Table A)], the conventional pollutant, effluent limitation for protection of aquatic life; 10 mg/L monthly average, 15 mg/L daily maximum.
- **Total Petroleum Hydrocarbons (GRO, DRO, ORO).** Monitoring requirement only. A surrogate for pollutants of concern associated with petroleum storage.
- **Ammonia.** The expanded effluent testing detected amounts of ammonia. There is a water quality standard for this pollutant therefore, an ammonia monitoring requirement has been established during application. Data from the previous permit cycle was insufficient to perform a reasonable potential analysis.

## **Part VI – Finding of Affordability**

Pursuant to Section 644.145, RSMo., the Department is required to determine whether a permit or decision is affordable and makes a finding of affordability for certain permitting and enforcement decisions. This requirement applies to discharges from combined or separate sanitary sewer systems or publically-owned treatment works.

Not Applicable;

The Department is not required to determine findings of affordability because the facility is not a **combined or separate sanitary sewer system for a publically-owned treatment works.**

## **Part VII – 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.

### **PERMIT SYNCHRONIZATION**

The Missouri Department of Natural Resources is transitioning from the traditional methods with which Missouri's water resources have been managed to a Watershed Based Management (WBM) approach. The WBM approach will manage watersheds on the eight-digit Hydrological Unit Code (HUC8) scale. As permitting and permit synchronization is a key aspect of successful implementation of a Watershed Management Plan (WMP), the same HUC8 groups that will move through the WBM cycle will have their permit expirations and issuances synchronized in the same fiscal year. The typical five-year term of the permit issuances aligns with the proposed five-year WBM cycle and the two processes will be intimately tied together.

The immediate goals of the permit synchronization include the following:

- The administrative and technical streamlining of Water Protection Program and Regional Office activities such as permitting, inspections, and water quality monitoring.
- Providing the basis for future watershed permitting.
- Beginning to further examine Missouri's water resources on a watershed basis.

This permit will expire on **June 30, 2016** in order to meet the permit synchronization goals.

**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 was from August 3, 2012 through September 3, 2012. No responses received or responses to the Public Notice of this operating permit do not warrant the modification of effluent limits and/or the terms and conditions of this permit.

**DATE OF FACT SHEET: SEPTEMBER 5, 2012**

**COMPLETED BY:**

**JOY JOHNSON, ENVIRONMENTAL SPECIALIST III**  
**NPDES PERMITS UNIT**  
**WATER PROTECTION PROGRAM**  
**(573) 751-6982**  
**[joy.johnson@dnr.mo.gov](mailto:joy.johnson@dnr.mo.gov)**