

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-0116254

Owner: Show-Me Landfill, LLC  
Address: 230 Southeast 421, Warrensburg, MO 64093

Continuing Authority: Same as above  
Address: Same as above

Facility Name: Show-Me Regional Landfill  
Facility Address: 230 Southeast 421, Warrensburg, MO 64093

Legal Description: NE ¼, SE ¼, Sec 4, T45N, R25W, Johnson County  
Latitude/Longitude: See Page 2

Receiving Stream: East Bear Creek (U)  
First Classified Stream and ID: East Bear Creek (C) (00934)  
USGS Basin & Sub-watershed No.: (10300104 – 050001)

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 – Landfill – SIC #4953  
Stormwater runoff/Actual flow is dependent upon precipitation. – See Page 2

**Leachate cannot be discharged. Stormwater that has come into contact with leachate is considered leachate and cannot be discharged. Leachate and stormwater that has come into contact with leachate must be managed in accordance with the provisions contained in the Missouri Solid Waste Management Laws, regulations and Sanitary Landfill Operating Permit; and Hazardous Waste Program (if applicable).**

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.

December 19, 2008  
Effective Date

  
Doyle Childers, Director, Department of Natural Resources  
Executive Secretary, Clean Water Commission

December 18, 2013  
Expiration Date  
MO 780-0041 (10-93)

  
Karl Fett, Director, Kansas City Regional Office

FACILITY DESCRIPTION (continued)

Outfall #001

Legal Description:  
Latitude/ longitude:  
Receiving Stream:  
First Classified Stream and ID:  
USGS Basin & Sub-watershed #:

Eliminated – will discharge through Outfall #005

Outfall #002

Legal Description:  
Latitude/ longitude:  
Receiving Stream:  
First Classified Stream and ID:  
USGS Basin & Sub-watershed #:

SE $\frac{1}{4}$ , SE $\frac{1}{4}$ , Sec 4, T45N, R25W; Johnson County  
+3843116/ -09340350  
East Bear Creek (U)  
East Bear Creek (C) (00934)  
10300104 - 050001

Outfall #003

Legal Description:  
Latitude/ longitude:  
Receiving Stream:  
First Classified Stream and ID:  
USGS Basin & Sub-watershed #:

SE $\frac{1}{4}$ , SE $\frac{1}{4}$ , Sec 4, T45N, R25W; Johnson County  
+3843017/ -09340276  
East Bear Creek (U)  
East Bear Creek (C) (00934)  
10300104 - 050001

Outfall #004

Legal Description:  
Latitude/ longitude:  
Receiving Stream:  
First Classified Stream and ID:  
USGS Basin & Sub-watershed #:

Eliminated – will discharge through Outfall# 003

Outfall #005

Legal Description:  
Latitude/ longitude:  
Receiving Stream:  
First Classified Stream and ID:  
USGS Basin & Sub-watershed #:

SW $\frac{1}{4}$ , NE $\frac{1}{4}$ , Sec 20, T54N, R1W; Johnson County  
+3843273/ -09340488  
East Bear Creek (U)  
East Bear Creek (C) (00934)  
10300104 – 050001

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

OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
<u>Outfall # 002</u>						
Rainfall	inches	*		*	Once/quarter***	24 hr. est.
pH**	SU	6.5 – 9.0		6.5 – 9.0	Once/quarter***	Grab
Flow	MGD	*		*	Once/quarter***	Grab
Biochemical Oxygen Demand	mg/L	60		45	Once/quarter***	Grab
Chemical Oxygen Demand	mg/L	120		90	Once/quarter***	Grab
Total Suspended Solids (TSS)	mg/L	80		60	Once/quarter***	Grab
Total Dissolved Solids (TDS)	mg/L	*		*	Once/quarter***	Grab
Chlorides plus Sulfates	mg/L	1000		1000	Once/quarter***	Grab
Nitrate/Nitrite as N	mg/L	*		*	Once/quarter***	Grab
Sulfate	mg/L	*		*	Once/quarter***	Grab
Oil & Grease	mg/L	15		10	Once/quarter***	Grab
Ammonia as N	mg/L	12.1		1.5	Once/quarter***	Grab
May 1 – Oct 31	mg/L	12.1		3.1	Once/quarter***	Grab
Nov 1 – April 30	mg/L					
Calcium	mg/L	*		*	Once/quarter***	Grab
Fluoride	mg/L	4		2	Once/quarter***	Grab
Conductivity	µmks/cm @ 25°C	*		*	Once/quarter***	Grab
Settleable Solids	mL/L/hr	1.5		1.0	Once/quarter***	Grab

MONITORING REPORTS SHALL BE SUBMITTED **QUARTERLY**; THE FIRST REPORT IS DUE **APRIL 28, 2009**. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

<u>Outfall # 002</u>						
Total Hardness	µg/L	*		*	Once/year	Grab
Chromium, TR (Hexavalent)	µg/L	15.24		7.60	Once/year	Grab
Sodium, TR	µg/L	*		*	Once/year	Grab
Manganese, TR	µg/L	*		*	Once/year	Grab
Magnesium, TR	µg/L	*		*	Once/year	Grab
Zinc, TR	µg/L	168.44		83.95	Once/year	Grab
Nickel, TR	µg/L	120.01		59.81	Once/year	Grab
Thallium, TR	µg/L	*		*	Once/year	Grab
Temperature	°C	*		*	Once/year	Grab

MONITORING REPORTS SHALL BE SUBMITTED **ANNUALLY**; THE FIRST REPORT IS DUE **OCTOBER 28, 2009**. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

**B. STANDARD CONDITIONS**

IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED **Parts I**, STANDARD CONDITIONS DATED **October 1, 1980**, AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.

**A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS**

PERMIT NUMBER MO-0116254

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

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		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
<u>Outfall # 003</u>						
Rainfall	inches	*		*	Once/quarter***	24 hr. est.
pH**	SU	6.5 – 9.0		6.5 – 9.0	Once/quarter***	Grab
Flow	MGD	*		*	Once/quarter***	Grab
Chemical Oxygen Demand	mg/L	120		90	Once/quarter***	Grab
Total Suspended Solids (TSS)	mg/L	80		60	Once/quarter***	Grab
Total Dissolved Solids (TDS)	mg/L	*		*	Once/quarter***	Grab
Chlorides plus Sulfates	mg/L	1000		1000	Once/quarter***	Grab
Sulfate	mg/L	*		*	Once/quarter***	Grab
Oil & Grease	mg/L	15		10	Once/quarter***	Grab
Calcium	mg/L	*		*	Once/quarter***	Grab
Conductivity	µmkos/cm @ 25°C	*		*	Once/quarter***	Grab
Settleable Solids	mL/L/hr	1.5		1.0	Once/quarter***	Grab

MONITORING REPORTS SHALL BE SUBMITTED QUARTERLY; THE FIRST REPORT IS DUE APRIL 28, 2009. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

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OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
<u>Outfall # 005</u>						
Rainfall	inches	*		*	Once/quarter***	24 hr .est.
pH **	SU	6.5 – 9.0		6.5 – 9.0	Once/quarter***	Grab
Flow	MGD	*		*	Once/quarter***	Grab
Chemical Oxygen Demand	mg/L	120		90	Once/quarter***	Grab
Total Suspended Solids (TSS)	mg/L	80		60	Once/quarter***	Grab
Total Dissolved Solids (TDS)	mg/L	*		*	Once/quarter***	Grab
Chlorides plus Sulfates	mg/L	1000		1000	Once/quarter***	Grab
Sulfate	mg/L	*		*	Once/quarter***	Grab
Oil & Grease	mg/L	15		10	Once/quarter***	Grab
Calcium	mg/L	*		*	Once/quarter***	Grab
Fluoride	mg/L	4		2	Once/quarter***	Grab
Conductivity	µmkos/cm @ 25°C	*		*	Once/quarter***	Grab
Settleable Solids	mL/L/hr	1.5		1.0	Once/quarter***	Grab

MONITORING REPORTS SHALL BE SUBMITTED QUARTERLY; THE FIRST REPORT IS DUE APRIL 28, 2009. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

<u>Outfall # 005</u>						
Total Hardness	µg/L	*		*	Once/year	Grab
Chromium, TR (Hexavalent)	µg/L	15.24		7.60	Once/year	Grab
Sodium, TR	µg/L	*		*	Once/year	Grab
Magnesium, TR	µg/L	*		*	Once/year	Grab
Zinc, TR	µg/L	168.44		83.95	Once/year	Grab
Nickel, TR	µg/L	120.01		59.81	Once/year	Grab

MONITORING REPORTS SHALL BE SUBMITTED ANNUALLY; THE FIRST REPORT IS DUE OCTOBER 28, 2009. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

**B. STANDARD CONDITIONS**

IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED Parts I, STANDARD CONDITIONS DATED October 1, 1980, AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

- \* 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.
- \*\*\* Monitor, at a minimum, once per quarter, following a rainfall event adequate to cause flow at the outfalls and within two (2) hours of the beginning of flow at the outfalls. (See table below)

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

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;

C. SPECIAL CONDITIONS (continued)

- (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.
6. 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:

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) 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.
  - (b) 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 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.
7. 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.

C. SPECIAL CONDITIONS (continued)

8. 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.
9. 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.
10. Before releasing water that has accumulated in secondary containment areas it must be examined for hydrocarbon odor and presence of a 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.
11. Substances, regulated by federal law under the Resource Conservation and Recovery Act (RCRA) and Comprehensive Environmental Response, Compensation, and Liability Act (CERLA), that are transported, stored, or used for maintenance, cleaning or repair, shall be managed according to RCRA and CERLA.

REPORTING OF EFFLUENT VIOLATIONS

If any of the sampling results from any of the outfalls show any violation of the permit discharge limitations, written notification shall be made to the Department of Natural Resources within five (5) days of notification of analytical results. Notification shall indicate the date(s) of sample collection, the analytical results, and permit number, and shall include a statement concerning the revisions or modifications in management practices that are being implemented to address the violation of the limitations that occurred.

After a violation has been reported, a sample of storm water runoff resulting from the next rainfall greater than 0.1 inches shall be collected at outfall(s) for which the violation occurred. Analytical results of this sample shall be submitted in writing to the Department of Natural Resources (this paragraph supersedes Part I, Section B: e.A. Noncompliance Notification).

RECORDS, RETENTION AND RECORDING

Monitoring reports shall be submitted within 28 days after the end of each quarter. All sampling data shall be maintained by the permittee for a period of five (5) years and shall be supplied to the Department of Natural Resources upon request (supersedes Part I, Section A:7. Records Retention). A copy of all of the sampling data must be submitted with an application for reissuance of this permit.

PERMIT TRANSFER

This permit may be transferred to a new owner by submitting an "Application for Transfer of Operating Permit" signed by the seller and buyer of the facility, along with the appropriate modification fee.

PERMIT RENEWAL REQUIREMENTS

Unless this permit is terminated, the permittee shall submit an application for the renewal of this permit no later than six (6) months prior to the permit's expiration date. Failure to apply for renewal may result in termination of this permit and enforcement action to compel compliance with this condition and the Missouri Clean Water Law.

TERMINATION

In order to terminate this permit, the permittee shall notify the department by submitting Form J, included with the State Operating Permit. The permittee shall complete Form J and mail it to the department at the address noted in the cover letter of this permit. Proper closure of any storage structure is required prior to permit termination. A closure plan shall be submitted to the department and approved prior to initiating closure activities.

DUTY OF COMPLIANCE

The permittee shall comply with all conditions of this permit. Any noncompliance with this permit constitutes a violation of Chapter 644, Missouri Clean Water Law, and 10 CSR 20-6. Noncompliance may result in enforcement action, termination of this authorization, or denial of the permittee's request for renewal.

**MISSOURI DEPARTMENT OF NATURAL RESOURCES  
FACT SHEET  
INDUSTRIAL STORM WATER RUNOFF FROM LANDFILL ACTIVITIES  
STANDARD INDUSTRIAL CLASSIFICATION (SIC): 4953  
FOR THE PURPOSE OF RENEWAL  
OF  
MO-0116254  
SHOW-ME REGIONAL LANDFILL**

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 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 (MCWL)" 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 Fact Sheet shall be prepared to give pertinent information regarding the applicable regulations, rationale for the development of effluent limitations and conditions, and the public participation process for the Missouri State Operating Permit (operating permit) listed below.

A Fact Sheet is not an enforceable part of an operating permit.

**Part A – Applicability & Facility Description**

Landfill are to obtain a MSOP in accordance the MCWL, documented above, and its implementing regulations 10 CSR 20-6.010(1)(A); 10 CSR 20-6.010(5)(A); and 10 CSR 20-6.200(1)(A). Storm water runoff from landfills are considered Industrial activities in accordance with 10 CSR 20-6.200(2)(B)3.B. Closed landfills may also be required to maintain a MSOP in accordance with 10 CSR 20.600(1)(B)10.

Facility Description:

- Active Landfill
- **Leachate must be handle in a manner where discharge is not allowed and in accordance with Hazardous Waste Program (if applicable) and Solid Waste Management Program requirements.**
- Stormwater run-off only
- Actual flow dependent upon precipitation.

**Part B – Outfall Information & Descriptions**

**OUTFALL(S) TABLE:**

OUTFALL	DESIGN FLOW (CFS)	TREATMENT LEVEL	EFFLUENT TYPE	DISTANCE TO CLASSIFIED SEGMENT (MI)
001	Discharge to #005	none	stormwater	see #005
002	23.09	none	stormwater	1.2
003	65.1	none	stormwater	1.55
004	Discharge to #003	none	stormwater	see #003
005	7.13	none	stormwater	1.72

Outfall #001

Eliminated – will discharge through Outfall #005

Legal Description:  
Latitude/ longitude:  
Receiving Stream:  
First Classified Stream and ID:  
USGS Basin & Sub-watershed #:

Outfall #002

Legal Description: SE¼, SE¼, Sec 4, T45N, R25W; Johnson County  
Latitude/ longitude: +3843116/ -09340350  
Receiving Stream: East Bear Creek (U)  
First Classified Stream and ID: East Bear Creek (C) (00934)  
USGS Basin & Sub-watershed #: 10300104 - 050001

Outfall #003

Legal Description: SE¼, SE¼, Sec 4, T45N, R25W; Johnson County  
Latitude/ longitude: +3843017/ -09340276  
Receiving Stream: East Bear Creek (U)  
First Classified Stream and ID: East Bear Creek (C) (00934)  
USGS Basin & Sub-watershed #: 10300104 - 050001

Outfall #004

Eliminated – will discharge through Outfall# 003

Legal Description:  
Latitude/ longitude:  
Receiving Stream:  
First Classified Stream and ID:  
USGS Basin & Sub-watershed #:

Outfall #005

Legal Description: SW¼, NE¼, Sec 20, T54N, R1W; Johnson County  
Latitude/ longitude: +3843273/ -09340488  
Receiving Stream: East Bear Creek (U)  
First Classified Stream and ID: East Bear Creek (C) (00934)  
USGS Basin & Sub-watershed #: 10300104 - 050001

Water Quality History: Instances of non-compliance were not indicated in the discharge monitoring reports for the previous permit period.

Comments: Discharges from Outfalls #001 and #004 have been routed to Outfalls # 005 and #003 respectively.

**Part C – Receiving Stream Information**

Please mark the correct designated waters of the state categories of the receiving stream.

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

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**
East Bear Creek	U	N/A	General criteria	10300104	Central Plains/ Blackwater/ Lamine
East Bear Creek	C	00934	LWW, AQL, WBC-B***		

\* - 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

\*\*\* - UAA has not been conducted.

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

RECEIVING STREAM (U, C, P)	LOW-FLOW VALUES (CFS)		
	1Q10	7Q10	30Q10
East Bear Creek (U)	0	0	0
East Bear Creek (C)	0	0	0.1

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 D – Rationale and Derivation of Effluent Limitations & Permit Conditions**

**ANTI-BACKSLIDING:**

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

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

**ANTIDegradation:**

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

Applicable, but deferred ;

As per [10 CSR 20-7.031(2)(D)], the three (3) levels of protection provided by the antidegradation policy in subsections (A), (B), and (C) of this section shall be implemented according to procedures developed by the department. On April 20, 2007, the Missouri Clean Water Commission approved *Missouri Antidegradation Rule and Implementation Procedure* (Antidegradation Rule), which is applicable to new or upgraded/expanded facilities. The implementation of the Antidegradation Rule will be implemented upon promulgation, which occurred on August 31, 2008.

**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.

**FLOW BASED PERMITTING:**

A standard mass-balance equation cannot be calculated for storm water from this facility because the flow from the facility and flow in the receiving stream cannot be determined for conditions on any given day. The amount of storm water discharged from the facility will vary based on previous rainfall, soil saturation, humidity, detention time, BMPs, surface permeability, etc. Flow in the receiving stream will vary based on similar climactic conditions, size of watershed, amount of surfaces with reduced permeability (houses, parking lots, and the like) in the watershed, hydrogeology, topography, etc.

It is likely that sufficient rainfall to cause a discharge for four continuous days from a facility will also cause some significant amount of flow in the receiving stream. Chronic WQSs are based on a four-day exposure (except Ammonia, which is based on a thirty day exposure). In the event that discharge does occur from this facility for four continuous days, some amount of flow will occur in the receiving stream. This flow will dilute storm water discharges from a facility. For these reasons, most industrial storm water facilities have limited potential to cause a violation of chronic water quality standards in the receiving stream.

Sufficient rainfall to cause a discharge for one hour or more from a facility would not necessarily cause significant flow in a receiving stream. Acute WQSs are based on a one hour of exposure, and must be protected at all times in unclassified streams, and within mixing zones of class P streams [10 CSR 20-7.031(3) and (4)]. Therefore, industrial storm water facilities with toxic contaminants do have the potential to cause a violation of acute WQSs if those toxic contaminants occur in sufficient amounts.

It is due to the items stated above that staff drafting this fact sheet are unable to perform statistical Reasonable Potential Analysis and calculate Wasteload Allocations via a mass-balance equation for effluent limit determination. However, staff may use their best professional judgment in determining if a facility has a potential to violate Missouri's Water Quality Standards. Effluent limitations are based on actual criteria that are subjected to Long Term Averages and then converted into Maximum Daily Limits or Average Monthly Limits.

**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):**

A plan to schedule activities, prohibitions of practices, maintenance procedures, and other management practices to prevent or reduce the pollution of waters of the state. The plan may include, but is not limited to, treatment requirements, operating procedures, and practices to control facility site runoff, spillage or leaks, sludge or waste disposal, or drainage from raw material storage.

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.

Applicable ;

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

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

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

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

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

**WLA MODELING:**

Not Applicable ;

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

**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.

**Part E – Effluent Limits Determination**

**OUTFALL #'S 002, 003 AND 005.**

**EFFLUENT LIMITATIONS TABLE:**

PARAMETER	UNIT	BASIS FOR LIMITS	DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MODIFIED	PREVIOUS PERMIT LIMITATIONS
<b>#002</b>							
RAINFALL	INCHES	1	*		*	NO	S
PH	SU	1	6.5-9.0		6.5-9.0	YES	6.0/9.0
FLOW	MGD	1	*		*	NO	S
BIOCHEMICAL OXYGEN DEMAND	MG/L	1	60		45	NO	S
CHEMICAL OXYGEN DEMAND	MG/L	1	120		90	NO	S
TOTAL SUSPENDED SOLIDS	MG/L	1	80		60	NO	S
TOTAL DISSOLVED SOLIDS	MG/L	8	*		*	NO	S
CHLORIDES PLUS SULFATES	MG/L	2	1000		1000	YES	1000/ 0
NITRATE/NITRITE AS N	MG/L	8	*		*	NO	S
SULFATE	MG/L	8	*		*	NO	S
OIL AND GREASE	MG/L	1	15		10	NO	S
AMMONIA AS N	MG/L	2/3/5	12.1		1.5/3.1**	YES	*
CALCIUM	MG/L	8	*		*	NO	S
FLUORIDE	MG/L	3	4		2	YES	*
CONDUCTIVITY	MICROMHOS /CM@ 25° C	8	*		*	NO	S
SETTLABLE SOLIDS	ML/ L/ HR	8	1.5		1.0	NO	S
TOTAL HARDNESS	µG/L	8	*		*	NO	S
CHROMIUM, TR (HEXAVALENT)	µG/L	8	15.24		7.60	YES	*
SODIUM, TR	µG/L	8	*		*	NO	S
MANGANESE, TR	µG/L	3	*		*	NO	S
MAGNESIUM, TR	µG/L	8	*		*	NO	S
ZINC, TR	µG/L	3	168.44		83.95	YES	*
NICKEL, TR	µG/L	3	120.01		59.81	YES	*
THALLIUM, TR	µG/L	3	*		*	NO	S
TEMPERATURE	°C	3	*		*	NO	****
<b>#003</b>							
RAINFALL	INCHES	1	*		*	NO	S
PH	SU	1	6.5 – 9.0		6.5 – 9.0	YES	6.0/9.0
FLOW	MGD	1	*		*	NO	S
CHEMICAL OXYGEN DEMAND	MG/L	1	120		90	NO	S
TOTAL SUSPENDED SOLIDS	MG/L	1	80		60	NO	S
TOTAL DISSOLVED SOLIDS	MG/L	8	*		*	NO	S
CHLORIDES PLUS SULFATES	MG/L	2	1000		1000	YES	1000/ 0
SULFATE	MG/L	8	*		*	NO	S
OIL AND GREASE	MG/L	1	15		10	NO	S
CALCIUM	MG/L	8	*		*	NO	S
CONDUCTIVITY	MICROMHOS /CM@ 25° C	8	*		*	NO	S
SETTLABLE SOLIDS	ML/ L/ HR	8	1.5		1.0	NO	S

#005							
RAINFALL	INCHES	1	*		*	NO	S
PH	SU	1	6.5 – 9.0		6.5 – 9.0	YES	6.0/9.0
FLOW	MGD	1	*		*	NO	S
CHEMICAL OXYGEN DEMAND	MG/L	1	120		90	NO	S
TOTAL SUSPENDED SOLIDS	MG/L	1	80		60	NO	S
TOTAL DISSOLVED SOLIDS	MG/L	8	*		*	NO	S
CHLORIDES PLUS SULFATES	MG/L	2	1000		1000	YES	1000/ 0
SULFATE	MG/L	8	*		*	NO	S
OIL AND GREASE	MG/L	1	15		10	NO	S
CALCIUM	MG/L	8	*		*	NO	S
FLUORIDE	MG/L	3	6.6		3.3	YES	*
CONDUCTIVITY	MICROMHOS /CM@ 25° C	8	*		*	NO	S
SETTLABLE SOLIDS	ML/ L/ HR	8	1.5		1.0	NO	S
TOTAL HARDNESS	µG/L	8	*		*	NO	S
CHROMIUM, TR (HEXAVALENT)	µG/L	3	15.24		7.60	YES	*
SODIUM, TR	µG/L	8	*		*	NO	S
LEAD, TR	µG/L	3	9.02		4.50	YES	*
MAGNESIUM, TR	µG/L	8	*		*	NO	S
ZINC, TR	µG/L	3	168.44		83.95	YES	*
NICKEL, TR	µG/L	3	120.01		59.81	YES	*

\* Monitoring requirement only.

\*\* May 1 – Oct 31 monthly average limitation = 1.5; Nov. 1 – Apr 30 monthly average limitation = 3.1

S Same as previous operating permit

\*\*\*\* Parameter not in previous state 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 Judgement    |
| 4. Lagoon Policy                         | 9. TMDL or Permit in lieu of TMDL |
| 5. Ammonia Policy                        | 10. WET Test Policy               |

**OUTFALL #'s 002, 003 AND 005 – DERIVATION AND DISCUSSION OF LIMITS:**

- **pH.** A common effluent limitation for the protection of Aquatic Life, [10 CSR 20-7.015(8)(B)2.]
- **Biochemical Oxygen Demand (BOD).** Effluent limitation retained from previous state operating permit, [ 10 CSR 20-7.015 (8)(B) 3. A.
- **Chemical Oxygen Demand (COD).** Effluent limitation retained from previous state operating permit.
- **Total Suspended Solids (TSS).** Effluent limitation retained from previous state operating permit. [10 CSR 20-7.015 (8)(B) 3. A.]
- **Total Dissolved Solids (TDS).** Monitoring requirement retained from previous state operating permit.
- **Chlorides plus Sulfates.** Effluent limitation retained from previous state operating permit, [10 CSR 20-7.031 (4) (L).
- **Nitrate/Nitrite as N.** A common indicator parameter to show the nutrient level in discharged water which may endanger Aquatic Life.
- **Sulfate.** Monitoring requirement has been retained from previous state operating permit. [10 CSR 20-7.031 Table A].
- **Oil and Grease.** Effluent limitation from 10 CSR 20-7.031 Table A. and EPA/505/2-90-001 for n = 1 and CV = 0.6.
- **Ammonia as N.** Effluent limitation from 10 CSR 20-7.031 Tables B1 and B3.
- **Calcium.** Monitoring requirement retained from previous state operating permit.

- **Fluoride.**  
Water quality standard limitation for Livestock Watering and Wildlife (LWW) = 4 mg/L  
The chronic water quality standard is used as a chronic WLA.  
Chronic WLA: = 4 mg/L  
 $LTA_c = 4 \text{ mg/L} (0.527) = 2.11 \text{ mg/L}$   
  
 $MDL = 2.11 \text{ mg/L} * 3.11 = 6.6 \text{ mg/L}$   
 $AML = 2.11 \text{ mg/L} * 1.55 = 3.3 \text{ mg/L}$
- **Conductivity.** An indicator parameter for the total ions which conduct electrical current. In a sample of water and may be indicative of the total contamination present in the sample.
- **Settleable Solids.** A common method for measuring the amount of heavier solids carried by moving surface water.
- **Total Hardness.** Monitoring requirement retained from previous state operating permit.
- **Metals.** Effluent limitations for total recoverable metals were developed using methods and procedures outlined in EPA/505/2-90-001 and “The Metals Translator: Guidance for Calculating a Total Recoverable Permit Limit from a Dissolved Criterion” (EPA 823-B-96-007). Protection of Aquatic Life criteria apply and water hardness = 162 mg/L.

METAL	CONVERSION FACTORS		WQBEL
	Acute	Chronic	
Chromium (µg/L)	0.982	0.962	YES
Lead (µg/L)	0.721	0.721	YES
Nickel (µg/L)	0.998	0.997	YES
Zinc (µg/L)	0.978	0.986	YES

- **Chromium, TR.** ( Hexavalent)  
Protection of Aquatic Life (AQL) CCC = 10 µg/L, CMC = 15 µg/L [10 CSR 7.031 Table A].  
 $C \text{ (Acute)} = CMC/CF = 15/0.982 = 15.27 \text{ µg/L WLA}_a$   
 $C \text{ (Chronic)} = CCC/CF = 10.0/0.962 = 10.40 \text{ µg/L WLA}_c$   
  
 $LTA_a = 15.27 \text{ µg/L} (0.321) = 4.90 \text{ µg/L}$   
 $LTA_c = 10.40 \text{ µg/L} (0.527) = 5.48 \text{ µg/L}$   
  
 $MDL = 4.90 \text{ µg/L} (3.11) = 15.24 \text{ µg/L}$   
 $AML = 4.90 \text{ µg/L} (1.55) = 7.60 \text{ µg/L}$
- **Lead, TR.**  
Protection of Aquatic Life (AQL) CCC = 4 µg/L, CMC = 100 µg/L [10 CSR 20-7.031 Table A].  
 $C \text{ (Acute)} = CMC/CF = 100/0.721 = 139 \text{ µg/L WLA}_a$   
 $C \text{ (Chronic)} = CCC/CF = 4/0.721 = 5.5 \text{ µg/L WLA}_c$   
  
 $LTA_a = 139 \text{ µg/L} (0.321) = 44.62 \text{ µg/L}$   
 $LTA_c = 5.5 \text{ µg/L} (0.527) = 2.90 \text{ µg/L}$   
  
 $MDL = 2.90 \text{ µg/L} (3.11) = 9.02 \text{ µg/L}$   
 $AML = 2.90 \text{ µg/L} (1.55) = 4.50 \text{ µg/L}$
- **Magnesium, TR.** Monitoring requirement retained from previous state operating permit.
- **Manganese, TR.** Monitoring requirement retained from previous state operating permit.

- **Nickel, TR.**

Protection of Aquatic Life (AQL) CCC = 73 µg/L, CMC = 660 µg/L [10 CSR 7.031 Table A].  
C (Acute) = CMC/CF = 660/0.998 = 661.32 µg/L WLA<sub>a</sub>  
C (Chronic) = CCC/CF = 73/0.997 = 73.22 µg/L WLA<sub>c</sub>

LTA<sub>a</sub> = 661.32 µg/L (0.321) = 212.28 µg/L  
LTA<sub>c</sub> = 73.22 µg/L (0.527) = 38.59 µg/L

MDL = 38.59 µg/L \* 3.11 = 120.01 µg/L  
AML = 38.59 µg/L \* 1.55 = 59.81 µg/L

- **Sodium, TR.** Monitoring requirement retained from previous state operating permit.

- **Thallium, TR.** Monitoring requirement retained from previous state operating permit.

- **Zinc, TR.**

Protection of Aquatic Life (AQL) CCC = 151 µg/L, CMC = 165 µg/L [10 CSR 7.031 Table A].  
C (Acute) = CMC/CF = 165/0.978 = 168.71 µg/L WLA<sub>a</sub>  
C (Chronic) = CCC/CF = 151/0.986 = 153.14 µg/L WLA<sub>c</sub>

LTA<sub>a</sub> = 168.71 µg/L (0.321) = 54.16 µg/L  
LTA<sub>c</sub> = 153.14 µg/L (0.527) = 80.70 µg/L

MDL = 54.16 µg/L \* 3.11 = 168.44 µg/L  
AML = 54.16 µg/L \* 1.55 = 83.95 µg/L

- **Temperature.** Necessary for a determination of the toxicity of ammonia.[10 CSR 20.7.031 (4) (B) 7.]

- **MINIMUM SAMPLING AND REPORTING FREQUENCY REQUIREMENTS FOR OUTFALL #'S 002, 003, AND 005.**

PARAMETER	SAMPLING FREQUENCY	REPORTING FREQUENCY
RAINFALL	ONCE/ QUARTER	ONCE/ QUARTER
PH	ONCE/ QUARTER	ONCE/ QUARTER
FLOW	ONCE/ QUARTER	ONCE/ QUARTER
BIOCHEMICAL OXYGEN DEMAND	ONCE/ QUARTER	ONCE/ QUARTER
CHEMICAL OXYGEN DEMAND	ONCE/ QUARTER	ONCE/ QUARTER
TOTAL SUSPENDED SOLIDS	ONCE/ QUARTER	ONCE/ QUARTER
TOTAL DISSOLVED SOLIDS	ONCE/ QUARTER	ONCE/ QUARTER
CHLORIDES PLUS SULFATES	ONCE/ QUARTER	ONCE/ QUARTER
NITRATE/NITRITE AS N	ONCE/ QUARTER	ONCE/ QUARTER
SULFATE	ONCE/ QUARTER	ONCE/ QUARTER
OIL AND GREASE	ONCE/ QUARTER	ONCE/ QUARTER
AMMONIA AS N	ONCE/ QUARTER	ONCE/ QUARTER
CALCIUM	ONCE/ QUARTER	ONCE/ QUARTER
FLUORIDE	ONCE/ QUARTER	ONCE/ QUARTER
CONDUCTIVITY	ONCE/ QUARTER	ONCE/ QUARTER
SETTLABLE SOLIDS	ONCE/ QUARTER	ONCE/ QUARTER

Once per quarter is the minimum sampling frequency requirement. If samples are collected on a more frequent basis, then the average of the samples may be submitted. Quarterly samples are to be collected in any month during the Quarter when there is adequate flow for sampling; and are to be reported by the 28<sup>th</sup> day of the following month of the applicable quarter i. e. April 28<sup>th</sup>, July 28<sup>th</sup>, October 28<sup>th</sup> and January 28<sup>th</sup>.

PARAMETER	SAMPLING FREQUENCY	REPORTING FREQUENCY
TOTAL HARDNESS	ONCE/ YEAR	ONCE/ YEAR
CHROMIUM, TR	ONCE/ YEAR	ONCE/ YEAR
LEAD, TR	ONCE/ YEAR	ONCE/ YEAR
MANGANESE, TR	ONCE/ YEAR	ONCE/ YEAR
MAGNESIUM, TR	ONCE/ YEAR	ONCE/ YEAR
NICKEL, TR	ONCE/ YEAR	ONCE/ YEAR
SODIUM, TR	ONCE/ YEAR	ONCE/ YEAR
THALLIUM, TR	ONCE/ YEAR	ONCE/ YEAR
ZINC, TR	ONCE/ YEAR	ONCE/ YEAR

Once annually is the minimum sampling frequency requirement. If samples are collected on a more frequent basis, then the average of the samples may be submitted. Analyses of the samples are to be reported by the October 28<sup>th</sup>.

### **Part F – Administrative Requirements**

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

#### **PUBLIC NOTICE:**

As per the Missouri Clean Water Law, the Missouri Clean Water Commission, and the federal Clean Water Act, persons wishing to comment on Missouri State Operating Permits are directed to do so by a department approved Public Notice coversheet. This Public Notice coversheet is attached to a Missouri State Operating Permit during the Public Notice period.

- The Public Notice period for this operating permit is tentatively schedule to begin on June 27, 2008 or is in process.

- The Public Notice period for this operating permit was from June 27, 2008 to July 30, 2008. 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:** 12/14/2007

**COMPLETED BY:**

**ED PATE  
WWPD/WIMB  
901 NORTH 5<sup>TH</sup> STREET  
KANSAS CITY, KANSAS 66101**

**Part G – Appendices**

**APPENDIX A– RPA RESULTS:**

**OUTFALL #002**

Reasonable Potential Analysis is conducted as per (TSD, EPA/505/2-90-001, Section 3.3.2).  
This RPA is available upon request.

<u>PARAMETER</u>	<u>UNIT</u>	<u>DATA SET LARGEST VALUE</u>	<u># IN DATA SET</u>	<u>RP MULTIPLYING FACTOR</u>	<u>VALUE OF CONCERN</u>	<u>EFFLUENT LIMIT</u>	<u>RP YES/NO</u>
<u>BTEX</u>	mg/L	0.015	6	3.8	0.057	0.75	NO
<u>BOD</u>	mg/L	37	7	3.6	133.2	45	YES
<u>COD</u>	mg/L	50.2	7	3.6	180.7	90	YES
<u>TSS</u>	mg/L	440	7	3.6	1,584	60	YES
<u>TDS</u>	mg/L	1600	6	3.8	6,080		YES
<u>CHLORIDES + SULFATES</u>	mg/L	1010	7	3.6	3,636	1000	YES
<u>NITRATE/ NITRITE AS N</u>	mg/L	0.58	4	4.7	2.73		YES
<u>SULFATE</u>	mg/L	390	2	7.4	2,886	1000	YES
<u>TOC</u>	mg/L	20.3	4	4.7	95.4		YES
<u>OIL &amp; GREASE</u>	mg/L	2.5	3	5.6	14.0	10	YES
<u>AMMONIA AS N</u>	mg/L	0.68	4	4.7	3.20	1.5	YES
<u>CALCIUM</u>	mg/L	195	4	4.7	916.5		YES
<u>FLUORIDE</u>	mg/L	620	4	4.7	2,914	3.3	YES
<u>PHOSPHOROUS, TR</u>	mg/L	1.3	4	4.7	6.11		NO
<u>CONDUCTIVITY</u>	µmhos/cm @25° C	1800	7	3.6	6,480		YES
<u>SETTLABLE SOLIDS</u>	ml/ l/ hr	0.7	2	7.4	5.18	1.0	YES
<u>IRON, TR</u>	µg/L	17	7	3.6	61.2	1,000	NO
<u>TOT. HARDNESS</u>	µg/L	420,000	4	4.7	1,974,000		YES
<u>BARIUM, TR</u>	µg/L	100	4	4.7	470		YES
<u>BORON, TR</u>	µg/L	0.025	3	5.6	0.14		NO
<u>CADMIUM, TR</u>	µg/L	0.0025	3	5.6	0.014	0.3	NO
<u>CHROMIUM, TR</u>	µg/L	14	4	4.7	65.8	103	YES
<u>COBALT, TR</u>	µg/L	39	4	4.7	183.3		YES
<u>COPPER, TR</u>	µg/L	20	4	4.7	94.0	10	YES
<u>SODIUM, TR</u>	µg/L	9800	4	4.7	46,060		YES
<u>Mercury, TR</u>	µg/L	0.0001	3	5.6	0.0006	0.5	NO
<u>Arsenic, TR</u>	µg/L	0.0025	3	5.6	0.014	20	NO
<u>Lead, TR</u>	µg/L	0.0125	3	5.6	0.07	4	NO
<u>Selenium, TR</u>	µg/L	0.011	3	5.6	0.0616	5	NO
<u>Silver, TR</u>	µg/L	0.0025	3	5.6	0.014	6.5	NO
<u>Manganese, TR</u>	µg/L	3400	4	4.7	15,980		YES
<u>Magnesium, TR</u>	µg/L	20,000	4	4.7	94,000		YES
<u>Zinc, TR</u>	µg/L	240	4	4.7	1,128	151	YES
<u>Antimony, TR</u>	µg/L	0.01	3	5.6	0.056		NO
<u>Beryllium, TR</u>	µg/L	0.0025	3	5.6	0.014	5	NO
<u>Nickel, TR</u>	µg/L	150	4	4.7	705	73	YES
<u>Thallium, TR</u>	µg/L	2.5	3	5.6	14.0	2	YES
<u>Vanadium, TR</u>	µg/L	14	4	4.7	65.8		YES

**OUTFALL #003**

PARAMETER	UNIT	DATA SET LARGEST VALUE	# IN DATA SET	RP MULTIPLYING FACTOR	VALUE OF CONCERN	EFFLUENT LIMIT	RP YES/NO
BTEX	mg/L	0.015	6	3.8	0.057	0.75	NO
BOD	mg/L	8.7	5	4.2	36.54	45	NO
COD	mg/L	41	6	3.8	155.8	90	YES
TSS	mg/L	71	3	5.6	397.6	60	YES
TDS	mg/L	1,500	6	3.8	5,700		BPJ
CHLORIDES + SULFATES	mg/L	1,000	6	3.8	3,800	1000	YES
NITRATE/ NITRITE AS N	mg/L	0.80	3	5.6	4.48		NO
SULFATE	mg/L	274	1	13.2	3,616.8	1000	YES
TOC	mg/L	8.45	3	5.6	47.32		NO
OIL & GREASE	mg/L	2.5	3	5.6	14.00	10	YES
AMMONIA AS N	mg/L	0.1	3	5.6	0.56	1.5	NO
CALCIUM	mg/L	82.1	3	5.6	459.76		BPJ
FLUORIDE	mg/L	0.38	3	5.6	2.13	4	NO
PHOSPHOROUS, TR	mg/L	0.14	3	5.6	0.784		NO
CONDUCTIVITY	µmhos/ cm @25° C	1,800	6	3.8	6,840		BPJ
SETTLABLE SOLIDS	ml/ l/ hr	0.5	6	3.8	1.90	1.0	YES
IRON, TR	µg/L	14	6	3.8	53.20	1,000	NO
TOT. HARDNESS	µg/L	324	3	5.6	1,814.4		NO
BARIUM, TR	µg/L	0.204	3	5.6	1.142		NO
BORON, TR	µg/L	0.06	3	5.6	0.336		NO
CADMIUM, TR	µg/L	0.0025	3	5.6	0.014	0.3	NO
CHROMIUM, TR	µg/L	0.013	3	5.6	0.0728	103	NO
COBALT, TR	µg/L	0.025	3	5.6	0.14		NO
COPPER, TR	µg/L	0.014	3	5.6	0.078	10	NO
SODIUM, TR	µg/L	8.29	3	5.6	46.42		NO
Mercury, TR	µg/L	0.0002	3	5.6	0.0011	0.5	NO
Arsenic, TR	µg/L	0.0025	3	5.6	0.014	20	NO
Lead, TR	µg/L	0.0125	3	5.6	0.07	4	NO
Selenium, TR	µg/L	0.019	3	5.6	0.1064	5	NO
Silver, TR	µg/L	0.0025	3	5.6	0.014	6.5	NO
Manganese, TR	µg/L	13.4	3	5.6	75.04		NO
Magnesium, TR	µg/L	14.9	3	5.6	83.44		NO
Zinc, TR	µg/L	0.059	3	5.6	0.33	151	NO
Antimony, TR	µg/L	0.01	3	5.6	0.056		NO
Beryllium, TR	µg/L	0.0025	3	5.6	0.014	5	NO
Nickel, TR	µg/L	0.058	3	5.6	0.325	73	NO
Thallium, TR	µg/L	0.0025	3	5.6	0.014	2	NO
Vanadium, TR	µg/L	0.01	3	5.6	0.056		NO

**OUTFALL #005**

PARAMETER	UNIT	DATA SET LARGEST VALUE	# IN DATA SET	RP MULTIPLYING FACTOR	VALUE OF CONCERN	EFFLUENT LIMIT	RP YES/NO
<u>BTEX</u>	mg/L	0.015	5	4.2	0.063	0.75	NO
<u>BOD</u>	mg/L	39	6	3.8	148.2	45	YES
COD	mg/L	114	6	3.8	433.2	90	YES
TSS	mg/L	630	5	4.2	2,646	60	YES
TDS	mg/L	1,300	6	3.8	4,940		<b>BPJ</b>
CHLORIDES + SULFATES	mg/L	782	6	3.8	2,761.6	1000	YES
NITRATE/ NITRITE AS N	mg/L	0.57	3	5.6	3.192		NO
SULFATE	mg/L	219	2	7.4	1,620.6	1000	YES
TOC	mg/L	15	3	5.6	84.0		NO
OIL & GREASE	mg/L	2.5	2	7.4	18.5	10	YES
AMMONIA AS N	mg/L	0.13	3	5.6	0.728	1.5	NO
CALCIUM	mg/L	129	3	5.6	722.4		<b>BPJ</b>
FLUORIDE	mg/L	220	3	5.6	1,232.0	4	YES
PHOSPHOROUS, TR	mg/L	2.1	3	5.6	11.76		NO
CONDUCTIVITY	µmhos/ cm @25° C	1,500	6	3.8	5,700.0		<b>BPJ</b>
SETTLABLE SOLIDS	ml/ l/ hr	1.3	2	7.4	9.62	1.0	YES
IRON, TR	µg/L	22	6	3.8	83.6	1,000	NO
TOT. HARDNESS	µg/L	12,000	3	5.6	67,200		<b>BPJ</b>
BARIUM, TR	µg/L	130	3	5.6	728.0		NO
BORON, TR	µg/L	57	3	5.6	319.2		NO
CADMIUM, TR	µg/L	0.005	2	7.4	0.037	0.3	NO
CHROMIUM, TR	µg/L	23	3	5.6	128.8	103	YES
COBALT, TR	µg/L	13	3	5.6	72.8		NO
COPPER, TR	µg/L	27	3	5.6	151.2	10	NO
SODIUM, TR	µg/L	1,400	3	5.6	7,840		<b>BPJ</b>
Mercury, TR	µg/L	0.0001	2	7.4	0.0007	0.5	NO
Arsenic, TR	µg/L	0.0025	2	7.4	0.0185	20	NO
Lead, TR	µg/L	12	3	5.6	67.2	4	YES
Selenium, TR	µg/L	0.019	2	7.4	0.1406	5	NO
Silver, TR	µg/L	0.0025	2	7.4	0.0185	6.5	NO
Manganese, TR	µg/L	670	3	5.6	3,752		NO
Magnesium, TR	µg/L	6,300	3	5.6	35,280		<b>BPJ</b>
Zinc, TR	µg/L	150	3	5.6	840	151	YES
Antimony, TR	µg/L	0.01	2	7.4	0.074		NO
Beryllium, TR	µg/L	0.0025	2	7.4	0.0185	5	NO
Nickel, TR	µg/L	63	3	5.6	352.8	73	YES
Thallium, TR	µg/L	0.0025	2	7.4	0.0185	2	NO
Vanadium, TR	µg/L	27	3	5.6	151.2		NO