

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES

MISSOURI CLEAN WATER COMMISSION



MISSOURI STATE OPERATING PERMIT

In compliance with the Missouri Clean Water Law, (Chapter 644 R.S. Mo. as amended, hereinafter, the Law), and the Federal Water Pollution Control Act (Public Law 92-500, 92nd Congress) as amended,

Permit No. MO-0108464

Owner: Allied Waste Services
Address: 5605 Moreau River Access Road, Jefferson City, MO 65101

Continuing Authority:
Address: Same as above

Facility Name: Ellis-Scott Sanitary Landfill
Address: 61 NW 850, P.O. Box 234, Clinton, MO 64093

Legal Description: Outfall #001 NW ¼, Sec. 26, T43N, R26W, Henry County
Latitude/Longitude: +3829086/-09346174
Outfall #002 NW ¼, Sec. 26, T43N, R26W, Henry County
+3828556/-09346184
Outfall #003 NE ¼, Sec. 27, T43N, R26W, Henry County
+3829046/-09346199

Receiving Stream: Unnamed tributary to Fields Creek (U)
First Classified Stream and ID: S. Grand River (P) (01249)
USGS Basin & Sub-watershed No.: (10290108-200001)
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 Attached Sheet

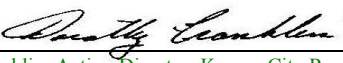
Leachate can not be discharged. Stormwater that has come into contact with leachate is considered leachate and can not be discharged. Leachate and stormwater that has come into contact with leachate must be managed in accordance with the provisions contained in the Missouri Solid Waste Management Laws, 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 11, 2009
Effective Date


Mark N. Templeton, Director, Department of Natural Resources

December 10, 2014
Expiration Date
MO 780-0041 (10-93)


Dorothy Franklin, Acting Director, Kansas City Regional Office

FACILITY DESCRIPTION (continued)

Outfall #001 & #002 - Landfill – SIC #4953

Stormwater runoff

Flow is dependent upon precipitation.

Outfall #003 – Landfill Leachate – SIC #4953

Holding basin/hailed off by local disposal company.

Design flow is 1,100 gallons per day

Actual flow is dependent upon precipitation.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS					PAGE NUMBER 3 of 8	
					PERMIT NUMBER MO-0108464	
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 the 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/#002</u>						
Flow	GPD	*		*	Once/Quarter	24 hr Estimate
Rainfall	Inches	*		*	Daily Measurement	Total
Chemical Oxygen Demand	mg/L	90		60	Once/Quarter*****	Grab****
Biochemical Oxygen Demand ₅	mg/L	45		30	Once/Quarter*****	Grab****
Total Suspended Solids	mg/L	80		60	Once/Quarter*****	Grab****
pH**	SU	6.5-9.0		6.5-9.0	Once/Quarter*****	Grab****
Settleable Solids	mL/L/hr	1.5		1.0	Once/Quarter*****	Grab****
Oil & Grease	mg/L	15		10	Once/Quarter*****	Grab****
Ammonia as N	mg/L	*		*	Once/Quarter*****	Grab****
Nitrate as N	mg/L	*		*	Once/Quarter*****	Grab****
Chloride + Sulfate	mg/L	1000		*	Once/Quarter*****	Grab****
Chloride	mg/L	*		*	Once/Quarter*****	Grab****
Sulfate	mg/L	*		*	Once/Quarter*****	Grab****
Fluoride	mg/L	*		*	Once/Quarter*****	Grab****
Benzene	µg/L	*		*	Once/Quarter*****	Grab****
Ethylbenzene	µg/L	*		*	Once/Quarter*****	Grab****
Toluene	µg/L	*		*	Once/Quarter*****	Grab****
Total Xylene	µg/L	*		*	Once/Quarter*****	Grab****
MONITORING REPORTS SHALL BE SUBMITTED <u>QUARTERLY</u> ; THE FIRST REPORT IS DUE <u>APRIL 28, 2010</u> . THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						
B. STANDARD CONDITIONS						
IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED <u>Parts I</u> STANDARD CONDITIONS DATED <u>October 1, 1980</u> , AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.						

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS					PAGE NUMBER 4 of 8	
					PERMIT NUMBER MO-0108464	
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 #001/#002</u>						
Total Hardness	mg/L	*		*	Once/Quarter*****	Grab****
Antimony, Total Recoverable	µg/L	*		*	Once/Quarter*****	Grab****
Arsenic, Total Recoverable	µg/L	*		*	Once/Quarter*****	Grab****
Barium, Total Recoverable	µg/L	*		*	Once/Quarter*****	Grab****
Beryllium, Total Recoverable	µg/L	*		*	Once/Quarter*****	Grab****
Boron, Total Recoverable	µg/L	*		*	Once/Quarter*****	Grab****
Cadmium, Total Recoverable	µg/L	*		*	Once/Quarter*****	Grab****
Chromium (III), Total Recoverable	µg/L	*		*	Once/Quarter*****	Grab****
Chromium (VI), Total Recoverable	µg/L	*		*	Once/Quarter*****	Grab****
Cobalt, Total Recoverable	µg/L	*		*	Once/Quarter*****	Grab****
Copper, Total Recoverable	µg/L	26.1		13.0	Once/Quarter*****	Grab****
Iron, Total Recoverable	µg/L	*		*	Once/Quarter*****	Grab****
Lead, Total Recoverable	µg/L	*		*	Once/Quarter*****	Grab****
Manganese, Total Recoverable	µg/L	*		*	Once/Quarter*****	Grab****
Mercury, Total Recoverable	µg/L	*		*	Once/Quarter*****	Grab****
Nickel, Total Recoverable	µg/L	*		*	Once/Quarter*****	Grab****
Selenium, Total Recoverable	µg/L	*		*	Once/Quarter*****	Grab****
Silver, Total Recoverable	µg/L	*		*	Once/Quarter*****	Grab****
Thallium, Total Recoverable	µg/L	*		*	Once/Quarter*****	Grab****
Zinc, Total Recoverable	µg/L	*		*	Once/Quarter*****	Grab****
MONITORING REPORTS SHALL BE SUBMITTED <u>QUARTERLY</u> ; THE FIRST REPORT IS DUE <u>APRIL 28, 2010</u> . THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						
B. STANDARD CONDITIONS						
IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED <u>Parts I</u> STANDARD CONDITIONS DATED <u>October 1, 1980</u> , AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.						

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS					PAGE NUMBER 5 of 8	
					PERMIT NUMBER MO-0108464	
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 #003 (Note 1)</u>						
Flow	GPD	*		*	Once/event	Grab
Biochemical Oxygen Demand ₅	mg/L		45	30	Once/event	Grab
Total Suspended Solids	mg/L		45	30	Once/event	Grab
pH	SU	***		***	Once/event	Grab
Oil & Grease	mg/L	15		10	Once/event	Grab
MONITORING REPORTS SHALL BE SUBMITTED <u>QUARTERLY</u> ; THE FIRST REPORT IS DUE <u>APRIL 28, 2010</u> . THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						
B. STANDARD CONDITIONS						
IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED <u>Parts I</u> STANDARD CONDITIONS DATED <u>October 1, 1980</u> , 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.
- *** pH is measured in pH units and is not to be averaged. The pH is limited to the range of 6.0-9.0 pH units.
- **** Grab samples shall be collected during a rainfall event, when there is runoff from the landfill site. The sample shall be collected no later than one hour after runoff begins.
- ***** See table below for quarterly sampling:

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

Note 1 – There shall be no discharge from the leachate holding basin. If a discharge does occur, the department shall be notified within 24 hours and the discharge shall be sampled each day that a discharge occurs. Report as “no-discharge” when a discharge does not occur during the report period.

C. SPECIAL CONDITIONS

1. This permit may be reopened and modified, or alternatively revoked and reissued, to:
 - (a) Comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a) (2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:
 - (1) contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
 - (2) controls any pollutant not limited in the permit.
 - (b) Incorporate new or modified effluent limitations or other conditions, if the result of a waste load allocation study, toxicity test or other information indicates changes are necessary to assure compliance with Missouri's Water Quality Standards.
 - (c) Incorporate new or modified effluent limitations or other conditions if, as the result of a watershed analysis, a Total Maximum Daily Load (TMDL) limitation is developed for the receiving waters which are currently included in Missouri's list of waters of the state not fully achieving the state's water quality standards, also called the 303(d) list.

The permit as modified or reissued under this paragraph shall also contain any other requirements of the Clean Water Act then applicable.

2. All outfalls must be clearly marked in the field.
3. Changes in Discharges of Toxic Substances

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

- (a) That any activity has occurred or will occur which would result in the discharge of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels:"
 - (1) One hundred micrograms per liter (100 µg/L);
 - (2) Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2,5 dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
 - (3) Five (5) times the maximum concentration value reported for the pollutant in the permit application;
 - (4) The level established in Part A of the permit by the Director.
 - (b) That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant, which was not reported in the permit application.
 - (c) That the effluent limit established in part A of the permit will be exceeded.
4. Report as no-discharge when a discharge does not occur during the report period.
 5. Water Quality Standards
 - (a) Discharges to waters of the state shall not cause a violation of water quality standards rule under 10 CSR 20-7.031, including both specific and general criteria.
 - (b) General Criteria. The following general water quality criteria shall be applicable to all waters of the state at all times including mixing zones. No water contaminant, by itself or in combination with other substances, shall prevent the waters of the state from meeting the following conditions:

- (1) Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses;
- (2) Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses;
- (3) Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses;
- (4) Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life;
- (5) There shall be no significant human health hazard from incidental contact with the water;
- (6) There shall be no acute toxicity to livestock or wildlife watering;
- (7) Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community;
- (8) Waters shall be free from used tires, car bodies, appliances, demolition debris, used vehicles or equipment and solid waste as defined in Missouri's Solid Waste Law, section 260.200, RSMo, except as the use of such materials is specifically permitted pursuant to section 260.200-260.247.

C. SPECIAL CONDITIONS

6. 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 #7 below.
 - (b) The SWPPP must include a schedule for a twice per month 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.
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.

C. SPECIAL CONDITIONS

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-0108464
ELLIS-SCOTT SANITARY 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 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 (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:

Inactive municipal landfill with a permitted footprint of 35 acres and 19 acres of that constructed. The permit defined the total acres as 230 acres. The facility stopped accepting waste in January of 2000. It has two storm water outfalls (#001 and #002).

Prior to 2000, leachate was collected and held in a basin until spray irrigation and land application by sprayer truck only onto landfill areas underlain by leachate collection system (Outfall 003). Upon stopping to accept waste in 2000, the landfill also terminated spray irrigation land application of the wastewater from the landfill leachate holding basin. Any excess leachate is now collected and hauled off by a local disposal company.

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	Variable	BMP*	Industrial – Storm water runoff	Greater than 15
002	Variable	BMP*	Industrial – Storm water runoff	Greater than 15
003	0.0017	Primary	Industrial – Leachate	Greater than 15

* - BMP means Best Management Practices

Outfall #001

Legal Description: NW¼, Sec. 26, T43N, R26W, Henry County
Latitude/Longitude: +3829086/-09346174
Receiving Stream: Field Creek (U)
First Classified Stream and ID: S. Grand River (P) (01249)
USGS Basin & Sub-watershed No.: (10290108-200001)

Outfall #002

Legal Description: NW ¼, Sec. 26, T43N, R26W, Henry County
Latitude/Longitude: +3828556/-09346184
Receiving Stream: Field Creek (U)
First Classified Stream and ID: Grand River (P) (01249)
USGS Basin & Sub-watershed No.: (10290108-200001)

Outfall #003

Legal Description: NE ¼, Sec. 27, T43N, R26W, Henry County
Latitude/Longitude: +3829046/-09346199
Receiving Stream: Field Creek (U)
First Classified Stream and ID: Grand River (P) (01249)
USGS Basin & Sub-watershed No.: (10290108-200001)

Water Quality History:

Total Suspended Solid (TSS) effluent limit was exceeded at Outfall #001 in March 1998, May 1998, March 1999, May 1999, March 2003, May 2006, March 2008 and September 2008. March 1999 chemical oxygen demand was also exceeded at Outfall #001. TSS effluent limit was exceeded at Outfall #002 in May 1998, March 1999, May 1999, May 2004, and March 2008. March 1999 chemical oxygen demand was also exceeded at Outfall #002. Setttable Solid effluent limit was exceeded in September 1993, February 1994 and May 2002. Last inspection was completed on September 20, 1996 by the Kansas City Regional Office.

Conclusion "This facility is considered to be in compliance with its NPDES permit at this time. However, because of the above-mentioned observations, great potential exists for future noncompliance. As more discharge monitoring data becomes available, determinations of compliance will be made by MDNR. It is strongly suggested that the potential problems of silt and TSS runoff be addressed."

Comments:

Several parameters/pollutants were removed from the previous state operating permit due to the fact that they did not have any applicable beneficial use (e.g., Protection of Aquatic Life) and/or water quality standard. The parameters/pollutants are as follows: Total Dissolved Solids, Conductivity, Calcium, Magnesium, Nitrite, Sodium, Total Phosphorus, Total Organic Carbon, and Total Vanadium.

Total Phosphorus monitoring or effluent limits are only required if the facility discharge to Lake Taneycomo and its tributaries or if the facility discharges within the watershed of either 11010001 or 11010002. The Ellis-Scott Sanitary Landfill does not discharge to either (1) Lake Taneycomo and its tributaries or (2) either of the watersheds 11010001 or 11010002.

Part C – Receiving Stream Information

APPLICABLE DESIGNATIONS OF WATERS OF THE STATE:

As per Missouri's Effluent Regulations [10 CSR 20-7.015], the waters of the state are divided into the below listed seven (7) categories. Each category list effluent limitations for specific parameters, which are presented in each outfall's Effluent Limitation Table and further discussed in the Derivation & Discussion of Limits section.

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

10 CSR 20-7.031 Missouri Water Quality Standards, the department defines the Clean Water Commission water quality objectives in terms of "water uses to be maintained and the criteria to protect those uses." The receiving stream and/or 1st classified receiving stream's beneficial water uses to be maintained are located in the Receiving Stream Table located below in accordance with [10 CSR 20-7.031(3)].

RECEIVING STREAM(S) TABLE:

WATERBODY NAME	CLASS	WBID	DESIGNATED USES*	8-DIGIT HUC	EDU**
Field Creek	U	NA	General Criteria	10290108	Central Plains/Osage/South Grand
S. Grand River	P	01249	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).

** - 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
Field Creek (U)	0.0	0.0	0.0
S. Grand River (P)	0.1	0.1	1.0

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.

☒ - All limits in this Factsheet 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.

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.

Existing facilities that are renewing their operating permit do not require an Antidegradation Review.

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, and 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.

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 #001/ #002 – Effluent Limitation Table:

PARAMETER	UNIT	BASIS FOR LIMITS	DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MODIFIED	PREVIOUS PERMIT LIMITATIONS
FLOW	gpd	1	*		*	NO	S
RAINFALL	Inches	9	*		*	NO	S
COD	mg/L	9	90		60	YES	120/90
BOD ₅	mg/L	1/9	45		30	YES	60/45
TSS	mg/L	1	80		60	NO	S
pH	SU	1	6.5 – 9.0		6.5 – 9.0	YES	6.0-9.0
SETTLABLE SOLIDS	mL/L/hr	1/9	1.5		1.0	NO	S
OIL & GREASE	mg/L	1/2/9	15		10	NO	S
TOTAL AMMONIA AS N	mg/L	1/2/5/9	*		*	NO	S
NITRATE AS N	mg/L	1/2/9	*		*	NO	S
CHLORIDE + SULFATES	mg/L	1/2/9	1000		*	NO	S
CHLORIDE	mg/L	1/2/9	*		*	YES	**
SULFATE	mg/L	1/2/9	*		*	NO	S
FLUORIDE	mg/L	1/2/9	*		*	NO	S
BENZENE	µg/L	1/2/9	*		*	YES	BETX 0.75
ETHYLBENZENE	µg/L	1/2/9	*		*	YES	BETX 0.75
TOLUENE	µg/L	1/2/9	*		*	YES	BETX 0.75
TOTAL XYLENE	µg/L	1/2/9	*		*	YES	BETX 0.75
TOTAL HARDNESS	mg/L	9	*		*	NO	S
ANTIMONY, TR	µg/L	1/2/9	*		*	NO	S
ARSENIC, TR	µg/L	1/2/9	*		*	NO	S
BARIUM, TR	µg/L	1/2/9	*		*	NO	S
BERYLLIUM, TR	µg/L	1/2/9	*		*	NO	S
BORON, TR	µg/L	1/2/9	*		*	NO	S
CADMIUM, TR	µg/L	1/2/9	*		*	NO	S
CHROMIUM (III), TR	µg/L	1/2/9	*		*	NO	S
CHROMIUM (VI), TR	µg/L	1/2/9	*		*	NO	S
COBALT, TR	µg/L	1/2/9	*		*	NO	S
COPPER, TR	µg/L	1/2/9	26.1		13.0	YES	*
IRON, TR	µg/L	1/2/9	*		*	NO	S
LEAD, TR	µg/L	1/2/9	*		*	NO	S
MANGANESE, TR	µg/L	1/2/9	*		*	NO	S
MERCURY, TR	µg/L	1/2/9	*		*	NO	S
NICKEL, TR	µg/L	1/2/9	*		*	NO	S
SELENIUM, TR	µg/L	1/2/9	*		*	NO	S
SILVER, TR	µg/L	1/2/9	*		*	NO	S
THALLIUM, TR	µg/L	1/2/9	*		*	NO	S
ZINC, TR	µg/L	1/2/9	*		*	NO	S
MONITORING FREQUENCY	Please see Minimum Sampling and Reporting Frequency Requirements in the Derivation and Discussion Section below.						

* - Monitoring requirement only

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

TR – means Total Recoverable

Basis for Limitations Codes:

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

OUTFALL #001/ #002 – DERIVATION AND DISCUSSION OF LIMITS:

- **Flow**. Monitoring only requirement 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 to determine an alternate location for flow monitoring.
- **Rainfall**. Monitoring only requirement. Precipitation data obtained from DMRs is used to aid in the determination of this facilities specific runoff coefficient and theoretical loading in the watershed.
- **Chemical Oxygen Demand (COD)**. Effluent limitations of 90 mg/L as a Daily Maximum and 60 mg/L as a Monthly Average are applicable to this facility and are consistent with other landfill operating permits.
- **Biochemical Oxygen Demand (BOD₅)**. Effluent limitations of 45 mg/L as a Daily Maximum and 30 mg/L as a Monthly Average are applicable to this facility and are consistent with other landfill operating permits.
- **Total Suspended Solids (TSS)**. Effluent limitations have been retained from previous state operating permit.
- **pH**. Effluent limitation range is from 6.5 to 9.0 Standard pH Units (SU), as per [10 CSR 20-7.031(4)(E). pH is not to be averaged.
- **Settleable Solids**. Effluent limitations of 1.5 mL per L per hour as a Daily Maximum and 1.0 mL per L per hour as a Monthly Average are applicable and are consistent with other landfill operating permits.
- **Oil & Grease**. Conventional pollutant, effluent limitation for protection of aquatic life; 10 mg/L monthly average, 15 mg/L daily maximum.
- **Total Ammonia Nitrogen**. Monitoring only requirement. No sampling data collected during the previous five (5) years that would indicate it has the potential to violate Missouri's Water Quality Standard (WQS). Ammonia was only detected twice, once in May 31, 2004 and the other in May 31, 2006, since 1995. The detections were below the WQS Acute Criteria for Ammonia at a pH of 7.8.
- **Nitrate as N**. Monitoring only retained from previous state operating permit. No sampling data collected during the previous five (5) years would indicate it has the potential to violate Missouri's WQS. The highest detection of Nitrate/Nitrite was 1.84 mg/L in May 31, 2004.
- **Chlorides + Sulfate**. Effluent limitation of 1000 mg/L as a Daily Maximum is applicable as per [10 CSR 20-7.031(L)1.].
- **Chlorides**. Monitoring only requirement. This parameter needs further monitoring to determine if it has potential to violate Missouri's WQS. Previously chlorides were only reported in combination with sulfate so it was not possible to determine whether or not that the chlorides would cause a violation of Missouri's WQS.
- **Sulfate**. Monitoring only retained from previous state operating permit. No sampling data collected during the previous five (5) years would indicate it has the potential to violate Missouri's WQS. The highest detection of sulfate was 92 mg/L in May 31, 2006.
- **Fluoride**. Monitoring only retained from previous state operating permit. No sampling data collected during the previous five (5) years would indicate it has the potential to violate Missouri's WQS. The highest detection of fluoride was 0.19 mg/L in May 31, 2006.
- **Benzene**. Monitoring only requirement. The previous state operating permit contained a combination parameter known as BETX, which is Benzene, Ethylbenzene, Toluene, and Total Xylene. No sampling data collected during the previous five (5) years of BETX would indicate it has the potential to violate Missouri's WQS. The effluent limitation will be eliminated and reduced to monitoring only to determine if there is a potential to violate Missouri's WQS.
- **Ethylbenzene**. Monitoring only requirement. The previous state operating permit contained a combination parameter known as BETX, which is Benzene, Ethylbenzene, Toluene, and Total Xylene. No sampling data collected during the previous five (5) years of BETX would indicate it has the potential to violate Missouri's WQS. The effluent limitation will be eliminated and reduced to monitoring only to determine if there is a potential to violate Missouri's WQS.

- **Toluene.** Monitoring only requirement. The previous state operating permit contained a combination parameter known as BETX, which is Benzene, Ethylbenzene, Toluene, and Total Xylene. No sampling data collected during the previous five (5) years of BETX would indicate it has the potential to violate Missouri's WQS. The effluent limitation will be eliminated and reduced to monitoring only to determine if there is a potential to violate Missouri's WQS.
- **Total Xylene.** Monitoring only requirement. The previous state operating permit contained a combination parameter known as BETX, which is Benzene, Ethylbenzene, Toluene, and Total Xylene. No sampling data collected during the previous five (5) years of BETX would indicate it has the potential to violate Missouri's WQS. The effluent limitation will be eliminated and reduced to monitoring only to determine if there is a potential to violate Missouri's WQS.

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). General warm-water fishery criteria apply and hardness of 193 mg/L.

Due to the absence of contemporaneous effluent and instream data for total recoverable metals, dissolved metals, hardness, and total suspended solids with which to calculate metals translators, partitioning between the dissolved and absorbed phases was assumed to be minimal (Section 5.7.3, EPA/505/2-90-001). Freshwater criteria conversion factors for dissolved metals were used as the metals translator as recommended in guidance (Section 1.3, 1.5.3, and Table 1, EPA 823-B-96-007). If concurrent site-specific data for total recoverable metals, dissolved metals, hardness, and total suspended solids are provided to the department, partitioning evaluations may be considered and site-specific translators developed.

METAL	CONVERSION FACTORS
	ACUTE
Arsenic	1.0
Cadmium	0.916
Chromium III	0.316
Chromium VI	0.982
Copper	0.960
Lead	0.695
Mercury	0.85
Nickel	0.998
Silver	0.85
Zinc	0.978

Conversion factors for Cd and Pb are hardness dependent. Values calculated using equation found in Section 1.3 of EPA 823-B-96-007 and hardness = 193 mg/L.

- **Total Hardness.** Monitoring only requirement due to the fact that Metals toxicity varies by hardness. The previous state operating permit contained a Total Hardness monitoring requirement, but only at a once per year frequency to be collected in May of each year. The parameter needs further monitoring in order to determine a site-specific Total Hardness value that can be averaged (25th %).
- **Antimony, Total Recoverable.** The previous state operating permit contained a monitoring only requirement, but at a once per year frequency to be collected in May of each year. From review of the discharge monitoring reports since 1995 only three samples have been collected and analyzed for metals with the last being in May 2006. The parameter needs further monitoring in order to determine if it has a potential to violate Missouri's WQS.
- **Arsenic, Total Recoverable.** The previous state operating permit contained a monitoring only requirement, but at a once per year frequency to be collected in May of each year. From review of the discharge monitoring reports since 1995 only three samples have been collected and analyzed for metals with the last being in May 2006. The parameter needs further monitoring in order to determine if it has a potential to violate Missouri's WQS.
- **Barium, Total Recoverable.** The previous state operating permit contained a monitoring only requirement, but at a once per year frequency to be collected in May of each year. From review of the discharge monitoring reports since 1995 only three samples have been collected and analyzed for metals with the last being in May 2006. The parameter needs further monitoring in order to determine if it has a potential to violate Missouri's WQS.

- **Beryllium, Total Recoverable.** The previous state operating permit contained a monitoring only requirement, but at a once per year frequency to be collected in May of each year. From review of the discharge monitoring reports since 1995 only three samples have been collected and analyzed for metals with the last being in May 2006. The parameter needs further monitoring in order to determine if it has a potential to violate Missouri's WQS.
- **Chromium (III), Total Recoverable.** The previous state operating permit contained a monitoring only requirement for Total Chromium; however, the Total Chromium has been separated into two (2) different species of Chromium (i.e., Chromium (III) & Chromium (VI)). The previous state operating permit contained a monitoring only requirement, but at a once per year frequency to be collected in May of each year. From review of the discharge monitoring reports since 1995 only three samples have been collected and analyzed for metals with the last being in May 2006. Total Chromium was detected at 19 µg/L and 38 µg/L in Outfall #001 and Outfall #002 respectfully in May 2006. The parameter needs further monitoring in order to determine if it has a potential to violate Missouri's WQS.
- **Chromium (VI), Total Recoverable.** The previous state operating permit contained a monitoring only requirement for Total Chromium; however, the Total Chromium has been separated into two (2) different species of Chromium (i.e., Chromium (III) & Chromium (VI)). The previous state operating permit contained a monitoring only requirement, but at a once per year frequency to be collected in May of each year. From review of the discharge monitoring reports since 1995 only three samples have been collected and analyzed for metals with the last being in May 2006. Total Chromium was detected at 19 µg/L and 38 µg/L in Outfall #001 and Outfall #002 respectfully in May 2006. The parameter needs further monitoring in order to determine if it has a potential to violate Missouri's WQS.
- **Copper, Total Recoverable.** The previous state operating permit contained a monitoring only requirement, but at a once per year frequency to be collected in May of each year. From review of the discharge monitoring reports since 1995 only three samples have been collected and analyzed for metals with the last being in May 2006. Copper was detected at 150 µg/L and 30 µg/L in Outfall #001 and Outfall #002 respectfully in May 2006. Cu has an AQL CMC criteria; Protection of Aquatic Life Acute Criteria (CMC) = 25.0 µg/L at Total Hardness of 193 mg/L. No mixing allowed; therefore, the CMC = the WLA (after conversion).

Conversion for CMC = $25.0/0.960 = 26 \mu\text{g/L}$

$\text{WLA}_a = 26 \mu\text{g/L}$

$\text{LTA}_a = 26 \mu\text{g/L} (0.321) = 8.4 \mu\text{g/L}$

[CV = 0.6, 99th Percentile]

$\text{MDL} = 8.4 \mu\text{g/L} (3.11) = 26.1 \mu\text{g/L}$

[CV = 0.6, 99th Percentile]

$\text{AML} = 8.4 \mu\text{g/L} (1.55) = 13.0 \mu\text{g/L}$

[CV = 0.6, 95th Percentile, n = 4]

- **Cadmium, Total Recoverable.** The previous state operating permit contained a monitoring only requirement, but at a once per year frequency to be collected in May of each year. From review of the discharge monitoring reports since 1995 only three samples have been collected and analyzed for metals with the last being in May 2006. The parameter needs further monitoring in order to determine if it has a potential to violate Missouri's WQS.
- **Cobalt, Total Recoverable.** The previous state operating permit contained a monitoring only requirement, but at a once per year frequency to be collected in May of each year. From review of the discharge monitoring reports since 1995 only three samples have been collected and analyzed for metals with the last being in May 2006. The parameter needs further monitoring in order to determine if it has a potential to violate Missouri's WQS.
- **Iron, Total Recoverable.** The previous state operating permit contained a monitoring only requirement, but at a once per year frequency to be collected in May of each year. From review of the discharge monitoring reports since 1995 only three samples have been collected and analyzed for metals with the last being in May 2006. The parameter needs further monitoring in order to determine if it has a potential to violate Missouri's WQS.
- **Lead, Total Recoverable.** The previous state operating permit contained a monitoring only requirement, but at a once per year frequency to be collected in May of each year. From review of the discharge monitoring reports since 1995 only three samples have been collected and analyzed for metals with the last being in May 2006. The parameter needs further monitoring in order to determine if it has a potential to violate Missouri's WQS.

- **Manganese, Total Recoverable**. The previous state operating permit contained a monitoring only requirement, but at a once per year frequency to be collected in May of each year. From review of the discharge monitoring reports since 1995 only three samples have been collected and analyzed for metals with the last being in May 2006. The parameter needs further monitoring in order to determine if it has a potential to violate Missouri's WQS.
- **Mercury, Total Recoverable**. The previous state operating permit contained a monitoring only requirement, but at a once per year frequency to be collected in May of each year. From review of the discharge monitoring reports since 1995 only three samples have been collected and analyzed for metals with the last being in May 2006. The parameter needs further monitoring in order to determine if it has a potential to violate Missouri's WQS.
- **Nickel, Total Recoverable**. The previous state operating permit contained a monitoring only requirement, but at a once per year frequency to be collected in May of each year. From review of the discharge monitoring reports since 1995 only three samples have been collected and analyzed for metals with the last being in May 2006. The parameter needs further monitoring in order to determine if it has a potential to violate Missouri's WQS.
- **Selenium, Total Recoverable**. The previous state operating permit contained a monitoring only requirement, but at a once per year frequency to be collected in May of each year. From review of the discharge monitoring reports since 1995 only three samples have been collected and analyzed for metals with the last being in May 2006. The parameter needs further monitoring in order to determine if it has a potential to violate Missouri's WQS.
- **Silver, Total Recoverable**. The previous state operating permit contained a monitoring only requirement, but at a once per year frequency to be collected in May of each year. From review of the discharge monitoring reports since 1995 only three samples have been collected and analyzed for metals with the last being in May 2006. The parameter needs further monitoring in order to determine if it has a potential to violate Missouri's WQS.
- **Thallium, Total Recoverable**. The previous state operating permit contained a monitoring only requirement, but at a once per year frequency to be collected in May of each year. From review of the discharge monitoring reports since 1995 only three samples have been collected and analyzed for metals with the last being in May 2006. The parameter needs further monitoring in order to determine if it has a potential to violate Missouri's WQS.
- **Zinc, Total Recoverable**. The previous state operating permit contained a monitoring only requirement, but at a once per year frequency to be collected in May of each year. From review of the discharge monitoring reports since 1995 only three samples have been collected and analyzed for metals with the last being in May 2006. The parameter needs further monitoring in order to determine if it has a potential to violate Missouri's WQS.

• **Minimum Sampling and Reporting Frequency Requirements.**

PARAMETER	SAMPLING FREQUENCY	REPORTING FREQUENCY
FLOW	ONCE/QUARTER	ONCE/QUARTER
BOD ₅	ONCE/QUARTER	ONCE/QUARTER
COD	ONCE/QUARTER	ONCE/QUARTER
RAINFALL	ONCE/QUARTER	ONCE/QUARTER
TSS	ONCE/QUARTER	ONCE/QUARTER
PH	ONCE/QUARTER	ONCE/QUARTER
SETTLEABLE SOLIDS	ONCE/QUARTER	ONCE/QUARTER
TEMPERATURE	ONCE/QUARTER	ONCE/QUARTER
AMMONIA AS N	ONCE/QUARTER	ONCE/QUARTER
NITRATE AS N	ONCE/QUARTER	ONCE/QUARTER
CHLORIDE + SULFATE	ONCE/QUARTER	ONCE/QUARTER
CHLORIDE	ONCE/QUARTER	ONCE/QUARTER
OIL & GREASE	ONCE/QUARTER	ONCE/QUARTER
FLUORIDE	ONCE/QUARTER	ONCE/QUARTER
BENZENE	ONCE/QUARTER	ONCE/QUARTER
ETHYLBENZENE	ONCE/QUARTER	ONCE/QUARTER
TOLUENE	ONCE/QUARTER	ONCE/QUARTER
TOTAL XYLENE	ONCE/QUARTER	ONCE/QUARTER
TOTAL HARDNESS	ONCE/QUARTER	ONCE/QUARTER
ANTIMONY, TOTAL RECOVERABLE	ONCE/QUARTER	ONCE/QUARTER
ARSENIC, TOTAL RECOVERABLE	ONCE/QUARTER	ONCE/QUARTER
BARIUM, TOTAL RECOVERABLE	ONCE/QUARTER	ONCE/QUARTER
BERYLLIUM, TOTAL RECOVERABLE	ONCE/QUARTER	ONCE/QUARTER
BORON, TOTAL RECOVERABLE	ONCE/QUARTER	ONCE/QUARTER
CADMIUM, TOTAL RECOVERABLE	ONCE/QUARTER	ONCE/QUARTER
CHROMIUM (III), TOTAL RECOVERABLE	ONCE/QUARTER	ONCE/QUARTER
CHROMIUM (VI), TOTAL RECOVERABLE	ONCE/QUARTER	ONCE/QUARTER
COBALT, TOTAL RECOVERABLE	ONCE/QUARTER	ONCE/QUARTER
COPPER, TOTAL RECOVERABLE	ONCE/QUARTER	ONCE/QUARTER
IRON, TOTAL RECOVERABLE	ONCE/QUARTER	ONCE/QUARTER
LEAD, TOTAL RECOVERABLE	ONCE/QUARTER	ONCE/QUARTER
MANGANESE, TOTAL RECOVERABLE	ONCE/QUARTER	ONCE/QUARTER
MERCURY, TOTAL RECOVERABLE	ONCE/QUARTER	ONCE/QUARTER
NICKEL, TOTAL RECOVERABLE	ONCE/QUARTER	ONCE/QUARTER
SELENIUM, TOTAL RECOVERABLE	ONCE/QUARTER	ONCE/QUARTER
SILVER, TOTAL RECOVERABLE	ONCE/QUARTER	ONCE/QUARTER
THALLIUM, TOTAL RECOVERABLE	ONCE/QUARTER	ONCE/QUARTER
ZINC, TOTAL RECOVERABLE	ONCE/QUARTER	ONCE/QUARTER

Outfall #003 – Effluent Limitation Table:

PARAMETER	UNIT	BASIS FOR LIMITS	DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MODIFIED	PREVIOUS PERMIT LIMITATIONS
FLOW	gpd	1	*		*	NO	S
BOD ₅	mg/L	1/9		45	30	YES	60/45
TSS	mg/L	1		45	30	YES	110/70
PH	SU	1	6.0- 9.0		6.0 – 9.0	NO	S
OIL & GREASE	mg/L	1/2/9	15		10	YES	**
MONITORING FREQUENCY	Please see Minimum Sampling and Reporting Frequency Requirements in the Derivation and Discussion Section below.						

* - Monitoring requirement only

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

TR – means Total Recoverable

Basis for Limitations Codes:

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

OUTFALL #003 – DERIVATION AND DISCUSSION OF LIMITS:

- **Flow.** Monitoring only requirement 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 to determine an alternate location for flow monitoring.
- **Biochemical Oxygen Demand (BOD₅).** Effluent limitations of 45 mg/L as a Weekly Average and 30 mg/L as a Monthly Average per 10 CSR 20-7.015(8)(B)1.
- **Total Suspended Solids (TSS).** Effluent limitations of 45 mg/L as a Weekly Average and 30 mg/L as a Monthly Average per 10 CSR 20-7.015(8)(B)1.
- **pH.** Effluent limitation range is from 6.0 to 9.0 Standard pH Units (SU).
- **Oil & Grease.** Conventional pollutant, effluent limitation for protection of aquatic life; 10 mg/L monthly average, 15 mg/L daily maximum.
- **Minimum Sampling and Reporting Frequency Requirements.**

PARAMETER	SAMPLING FREQUENCY	REPORTING FREQUENCY
FLOW	ONCE/EVENT	ONCE/QUARTER
BOD ₅	ONCE/EVENT	ONCE/QUARTER
TSS	ONCE/EVENT	ONCE/QUARTER
pH	ONCE/EVENT	ONCE/QUARTER

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.

DATE OF FACT SHEET: DECEMBER 16, 2008

COMPLETED BY:

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Appendix 1- Facility Map View

