

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-0107263

Owner: City of North Kansas City
Address: 2010 Howell, North Kansas City, MO 64116

Continuing Authority: Same as above
Address: Same as above

Facility Name: North Kansas City Sewage Treatment Sludge Landfill
Address: 2020 Bedford, North Kansas City, MO 64116

Legal Description: SW ¼, Sec 22, T50N, R33W; Clay County
Latitude/ Longitude: +3908222/ -09432485

Receiving Stream: Missouri River and Rock Creek
First Classified Stream and ID: (Missouri River) (P) (00356)
USGS Basin & Sub-watershed No.: (10300101 - 040002)

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

FACILITY DESCRIPTION

Sludge Landfill- SIC # 4953
Stormwater run-off and Ground water monitoring
See pages 2 and 3.

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.

August 22, 2008
Effective Date

Handwritten signature of Doyle Childers in black ink.

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

August 21, 2013
Expiration Date
MO 780-0041 (10-93)

Handwritten signature of Karl Fett in blue ink.

Karl Fett, Director, Kansas City Regional Office

Outfall #002

Legal Description: SW¼, Sec 22, T50N, R33W; Clay County
Latitude/ longitude: +3908384/ -09432508
Receiving Stream: Rock Creek
First Classified Stream and ID: Missouri River (P) (00356)
USGS Basin & Sub-watershed #: 10300101 - 040002

Outfall #003

Legal Description: SW¼, Sec 22, T50N, R33W; Clay County
Latitude/ longitude: +3908403/ -09432428
Receiving Stream: Rock Creek
First Classified Stream and ID: Missouri River (P) (00356)
USGS Basin & Sub-watershed #: 10300101 - 040002

Outfall #005

Legal Description: SW¼, Sec 22, T50N, R33W; Clay County
Latitude/ longitude: +3908290/ -09432368
Receiving Stream: Missouri River
First Classified Stream and ID: Missouri River (P) (00356)
USGS Basin & Sub-watershed #: 10300101 - 040002

Outfall #006

Legal Description: SW¼, Sec 22, T50N, R33W; Clay County
Latitude/ longitude: +3908228/ -09432440
Receiving Stream: Missouri River
First Classified Stream and ID: Missouri River (P) (00356)
USGS Basin & Sub-watershed #: 10300101 - 040002

Outfall #007

Legal Description: SW¼, Sec 22, T50N, R33W; Clay County
Latitude/ longitude: +3908198/ -09432457
Receiving Stream: Missouri River
First Classified Stream and ID: Missouri River (P) (00356)
USGS Basin & Sub-watershed #: 10300101 - 040002

Outfall #008

Legal Description: SW¼, Sec 22, T50N, R33W; Clay County
Latitude/ longitude: +3908148/ -09432495
Receiving Stream: Missouri River
First Classified Stream and ID: Missouri River (P) (00356)
USGS Basin & Sub-watershed #: 10300101 - 040002

Outfall #009

Legal Description: SW¼, Sec 22, T50N, R33W; Clay County
Latitude/ longitude: +3908105/ -09432518
Receiving Stream: Missouri River
First Classified Stream and ID: Missouri River (P) (00356)
USGS Basin & Sub-watershed #: 10300101 - 040002

Outfall #0615

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

GW Monitoring Well
SW¹/₄, Sec 22, T50N, R33W; Clay County
+3908238/ -09432410
N/A
N/A
N/A

Outfall #0616

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

GW Monitoring Well
SW¹/₄, Sec 22, T50N, R33W; Clay County
+3908159/ -09432470
N/A
N/A
N/A

Outfall #0617

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

GW Monitoring Well
SW¹/₄, Sec 22, T50N, R33W; Clay County
+3908089/ -09432509
N/A
N/A
N/A

Outfall #0618

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

GW Monitoring Well
SW¹/₄, Sec 22, T50N, R33W; Clay County
+3908137/ -09432536
N/A
N/A
N/A

Outfall #0619

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

GW Monitoring Well
SW¹/₄, Sec 22, T50N, R33W; Clay County
+3908221/ -09432536
N/A
N/A
N/A

Outfall #0620

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

GW Monitoring Well
SW¹/₄, Sec 22, T50N, R33W; Clay County
+3908289/ -09432483
N/A
N/A
N/A

Outfall #0621

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

GW Monitoring Well
SW¹/₄, Sec 22, T50N, R33W; Clay County
+3908282/ -09432443
N/A
N/A
N/A

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS					PAGE NUMBER 4 of 12	
					PERMIT NUMBER MO-0107263	
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 #'S 002, 003, 005, 006, 007, 008 and 009</u>						
Flow	MGD	*		*	Once/ quarter***	24 hr est.
pH – Units**	SU	6.5 – 9.0		6.5 – 9.0	Once/ quarter***	grab
Total Suspended Solids	mg/L	*		*	Once/ quarter ***	grab
Specific Conductivity	µmhos/cm	*		*	Once/ quarter***	grab
Nitrate/ Nitrite	mg/L	10		10	Once/ quarter***	grab
Settleable Solids	mg/L	1.5		1.0	Once/ quarter***	grab
MONITORING REPORTS SHALL BE SUBMITTED <u>QUARTERLY</u> ; THE FIRST REPORT IS DUE <u>JANUARY 28, 2009</u> . THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						
Whole Effluent Toxicity (WET) Test	% Survival	see special conditions			Once/ year	grab
MONITORING REPORTS SHALL BE SUBMITTED <u>ANNUALLY</u> ; THE FIRST REPORT IS DUE <u>October 28, 2009</u> .						
B. STANDARD CONDITIONS						
IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED <u>Parts I & III</u> STANDARD CONDITIONS DATED <u>October 1, 1980 and August 15, 1994</u> , AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.						

MO 780-0010 (8/91)

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 2 hours of the beginning of flow at the outfalls.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

PERMIT NUMBER MO-0107263

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 #'S 0615</u>						
pH – Units	SU	6.5 – 9.0		6.5 - 9.0	Once/ year	grab
Barium, TR	µg/L	1000		1000	Once/ year	grab
Beryllium, TR	µg/L	4		4	Once/ year	grab
Cadmium, TR	µg/L	5		5	Once/ year	grab
Nickel, TR	µg/L	100		100	Once/ year	grab
Sulfate	mg/L	250		250	Once/ year	grab
Trichloroethylene	µg/L	5		5	Once/ year	grab
Priority Pollutants	µg/L	*		*	Once/ year	grab
<u>Outfall #'S 0616</u>						
pH – Units	SU	6.5 – 9.0		6.5 – 9.0	Once/ year	grab
Barium, TR	µg/L	1000		1000	Once/ year	grab
Beryllium, TR	µg/L	4		4	Once/ year	grab
Cadmium, TR	µg/L	5		5	Once/ year	grab
Chromium, TR	µg/L	100		100	Once/ year	grab
Nickel, TR	µg/L	100		100	Once/ year	grab
Silver, TR	µg/L	50		50	Once/ year	grab
Trichloroethylene	µg/L	5		5	Once/ year	grab
Priority Pollutants	µg/L	*		*	Once/ year	grab
<u>Outfall #'S 0617</u>						
pH – Units	SU	6.5 – 9.0		6.5 – 9.0	Once/ year	grab
Arsenic, TR	µg/L	100		100	Once/ year	grab
Barium, TR	µg/L	1000		1000	Once/ year	grab
Beryllium, TR	µg/L	4		4	Once/ year	grab
Cadmium, TR	µg/L	5		5	Once/ year	grab
Chromium, TR	µg/L	100		100	Once/ year	grab
Nickel, TR	µg/L	100		100	Once/ year	grab
Sulfate	mg/L	250		250	Once/ year	grab
Trichloroethylene	µg/L	5		5	Once/ year	grab
Priority Pollutants	µg/L	*		*	Once/ year	grab
<u>Outfall #'S 0618</u>						
pH – Units	SU	6.5 – 9.0		6.5 – 9.0	Once/ year	grab
Arsenic, TR	µg/L	100		100	Once/ year	grab
Barium, TR	µg/L	1000		1000	Once/ year	grab
Beryllium, TR	µg/L	4		4	Once/ year	grab
Cadmium, TR	µg/L	5		5	Once/ year	grab
Chromium, TR	µg/L	100		100	Once/ year	grab
Nickel, TR	µg/L	100		100	Once/ year	grab
Nitrate	mg/L	10		10	Once/ year	grab
Selenium, TR	µg/L	50		50	Once/ year	grab
Sulfate	mg/L	250		250	Once/ year	grab
Trichloroethylene	µg/L	5		5	Once/ year	grab
Priority Pollutants	µg/L	*		*	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 & III STANDARD CONDITIONS DATED October 1, 1980 and August 15, 1994, 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 6.0-9.0 pH units.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS						PERMIT NUMBER MO-0107263
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
Outfall #'S 0619						
pH – Units	SU	6.5 – 9.0		6.5 – 9.0	Once/ year	grab
Barium, TR	µg/L	1000		1000	Once/ year	grab
Beryllium, TR	µg/L	4		4	Once/ year	grab
Cadmium, TR	µg/L	5		5	Once/ year	grab
Chloride	µg/L	250		250	Once/ year	grab
Nickel, TR	mg/L	100		100	Once/ year	grab
Sulfate	µg/L	250		250	Once/ year	grab
Trichloroethylene	µg/L	5		5	Once/ year	grab
Zinc, TR	µg/L	5000		5000	Once/ year	grab
Priority Pollutants	µg/L	*		*	Once/ year	grab
Outfall #'S 0620						
pH – Units	SU	6.5 – 9.0		6.5 – 9.0	Once/ year	grab
Barium, TR	µg/L	1000		1000	Once/ year	grab
Beryllium, TR	µg/L	4		4	Once/ year	grab
Cadmium, TR	µg/L	5		5	Once/ year	grab
Chloride	mg/L	250		250	Once/ year	grab
Chromium, TR	µg/L	100		100	Once/ year	grab
Copper, TR	µg/L	1300		1300	Once/ year	grab
Nickel, TR	µg/L	100		100	Once/ year	grab
Silver, TR	µg/L	250		250	Once/ year	grab
Sulfate	mg/L	250		250	Once/ year	grab
Trichloroethylene	µg/L	5		5	Once/ year	grab
Zinc, TR	µg/L	5000		5000	Once/ year	grab
Priority Pollutants	µg/L	*		*	Once/ year	grab
Outfall #'S 0621						
pH – Units	SU	6.5 – 9.0		6.5 – 9.0	Once/ year	grab
Barium, TR	µg/L	1000		1000	Once/ year	grab
Beryllium, TR	µg/L	4		4	Once/ year	grab
Cadmium, TR	µg/L	5		5	Once/ year	grab
Chloride	mg/L	250		250	Once/ year	grab
Chromium, TR	µg/L	100		100	Once/ year	grab
Copper, TR	µg/L	1300		1300	Once/ year	grab
Nickel, TR	µg/L	100		100	Once/ year	grab
Silver, TR	µg/L	50		50	Once/ year	grab
Trichloroethylene	µg/L	5		5	Once/ year	grab
Priority Pollutants	µg/L	*		*	Once/ year	grab
MONITORING REPORTS SHALL BE SUBMITTED <u>ANNUALLY</u> . THE FIRST REPORT IS DUE <u>October 28, 2009</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 & III</u> STANDARD CONDITIONS DATED <u>October 1, 1980 and August 15, 1994</u> , AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.						

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

* Monitoring requirement only.

*** 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.

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 Standard.
 - (c) Incorporate new or modified effluent limitations or other conditions if, as the result of a watershed analysis, a Total Maximum Daily Load (TMDL) limitation is developed for the receiving waters which are currently included in Missouri's list of waters of the state not fully achieving the state's water quality standards, also called the 303(d) list.

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

2. All outfalls must be clearly marked in the field.
3. Permittee will cease discharge by connection to areawide wastewater treatment system within 90 days of notice of its availability.
4. 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.
5. Report as no-discharge when a discharge does not occur during the report period.
 6. 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;

C. SPECIAL CONDITIONS (continued)

- (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 260.200-260.2

7. Sludge and Biosolids Use For Domestic Wastewater Treatment Facilities

- (a) Permittee shall comply with the pollutant limitations, monitoring, reporting, and other requirements in accordance with the attached permit Standard Conditions.
- (b) If sludge is not removed by a contract hauler, Permittee is authorized to land apply biosolids. Permit Standard Conditions, Part III shall apply to the land application of biosolids. Permittee shall notify the department at least 180 days prior to the planned removal of biosolids. The department may require submittal of a biosolids management plan for department review and approval as determined appropriate on a case-by-case basis.

8. Whole Effluent Toxicity (WET) tests shall be conducted as follows:

SUMMARY OF WET TESTING FOR THIS PERMIT				
OUTFALLS	A.E.C. %	FREQUENCY	SAMPLE TYPE	MONTH
002, 003, 005, 006, 007, 008 and 009	100	once/ year	Grab	Any month when flow is adequate, except not two consecutive months

(a) Test Schedule and Follow-Up Requirements

- (1) Perform a SINGLE-dilution test in the months and at the frequency specified above. For tests which are successfully passed, submit test results USING THE DEPARTMENT'S WET TEST REPORT FORM #MO-780-1899 along with complete copies of the test reports as received from the laboratory, including copies of chain-of-custody forms within 30 calendar days of availability to the WATER PROTECTION PROGRAM, P.O. Box 176, Jefferson City, MO 65102. If the effluent passes the test, do not repeat the test until the next test period.
 - (a) For discharges of stormwater, samples shall be collected within three hours from when discharge first occurs.
 - (b) Samples submitted for analysis of stormwater discharges shall be collected as a grab.
 - (c) For discharges of non-stormwater, samples shall be collected only when precipitation has not occurred for a period of forty-eight hours prior to sample collection. In no event shall sample collection occur simultaneously with the occurrence of precipitation.
 - (d) A twenty-four hour composite sample shall be submitted for analysis of non-stormwater discharges.
 - (e) Upstream receiving water samples, where required, shall be collected upstream from any influence of the effluent where downstream flow is clearly evident.
 - (f) Samples submitted for analysis of upstream receiving water may be collected as either a grab or twenty-four-hour composite as appropriate to the nature of the discharge.
 - (g) Chemical and physical analysis of the upstream control and effluent sample shall occur immediately upon being received by the laboratory, prior to any manipulation of the effluent sample beyond preservation methods consistent with federal guidelines for WET testing that are required to stabilize the sample during shipping.
 - (h) Any and all chemical or physical analysis of the effluent sample performed in conjunction with the WET test shall be performed at the 100% Effluent concentration in addition to analyses performed upon any other effluent concentration.

C. SPECIAL CONDITIONS (continued)

- (i) All chemical analyses included in the Missouri Department of Natural Resources WET test report form #MO-780-1899 shall be performed and results shall be recorded in the appropriate field of the report form.
 - (j) Where flow-weighted composite sample is required for analysis, the samples shall be composited at the laboratory where the test is to be performed.
 - (k) Where in stream testing is required downstream from the discharge, sample collection shall occur immediately below the established Zone of Initial Dilution in conjunction with or immediately following a release or discharge.
 - (l) Samples submitted for analysis of downstream receiving water may be collected as either a grab or twenty-four-hour composite as appropriate to the nature of the discharge.
 - (m) All instream samples, including downstream samples, shall be tested for toxicity at the 100% concentration in addition to any other assigned AEC for in-stream samples.
- 2) All failing test results along with complete copies of the test reports as received from the laboratory, including those tests conducted under condition (3) below, shall be reported to the WATER PROTECTION PROGRAM, P.O. Box 176, Jefferson City, MO 65102 within 14 calendar days of the availability of the results.
 - 3) If the effluent fails the test, a multiple dilution test shall be performed within 30 calendar days and biweekly thereafter, until one of the following conditions are met:
 - (a) THREE CONSECUTIVE MULTIPLE-DILUTION TESTS PASS. No further tests need to be performed until next regularly scheduled test period.
 - (b) A TOTAL OF THREE MULTIPLE-DILUTION TESTS FAIL.
 - (4) Failure of at least three multiple-dilution tests during any period of accelerated monitoring violates the permit narrative requirement for aquatic life protection.
 - (5) The Permittee shall submit a concise summary of all test results for the test series to the WATER PROTECTION PROGRAM, P.O. Box 176, Jefferson City, MO 65102 within 14 calendar days of the third failed test.
 - (6) Additionally, the following shall apply upon failure of the third MULTIPLE DILUTION test: A toxicity identification evaluation (TIE) or toxicity reduction evaluation (TRE) is automatically triggered. The Permittee shall contact THE WATER PROTECTION PROGRAM within 14 calendar days from availability of the test results to ascertain as to whether a TIE or TRE is appropriate. The Permittee shall submit a plan for conducting a TIE or TRE to the WATER PROTECTION PROGRAM within 60 calendar days of the date of DNR's direction to perform either a TIE or TRE. This plan must be approved by DNR before the TIE or TRE is begun. A schedule for completing the TIE or TRE shall be established in the plan approval.
 - (7) Upon DNR's approval, the TIE/TRE schedule may be modified if toxicity is intermittent during the TIE/TRE investigations. A revised WET test schedule may be established by DNR for this period.
 - (8) If a previously completed TIE has clearly identified the cause of toxicity, additional TIEs will not be required as long as effluent characteristics remain essentially unchanged and the Permittee is proceeding according to a DNR approved schedule to complete a TRE and reduce toxicity. Regularly scheduled WET testing as required in the permit, without the follow-up requirements, will be required during this period.
 - (9) When WET test sampling is required to run over one DMR period, each DMR report shall contain A COPY OF THE DEPARTMENT'S WET TEST REPORT FORM THAT WAS generated during the reporting period.
 - (10) Submit a concise summary in tabular format of all test results with the annual report.
- (b) PASS/FAIL procedure and effluent limitations:
- (1) To pass a single-dilution test, mortality observed in the AEC test concentration shall not be significantly different (at the 95% confidence level; $p = 0.05$) than that observed in the upstream receiving-water control sample. Where upstream receiving water is not available mortality observed in the AEC test concentration shall not be significantly different (at the 95% confidence level; $p = 0.05$) than that observed in the laboratory control. The appropriate statistical tests of significance shall be consistent with the most current edition of Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms or other federal guidelines as appropriate or required.

C. SPECIAL CONDITIONS (continued)

- (2) To pass a multiple-dilution test:
 - (a) FOR FACILITIES WITH A computed percent effluent at the edge of the zone of initial dilution, Allowable Effluent Concentration (AEC), OF 30% OR LESS THE AEC must be less than three-tenths (0.3) of the LC₅₀ concentration for the most sensitive of the test organisms; OR,
 - (b) FOR FACILITIES WITH AN AEC GREATER THAN 30% THE LC50 CONCENTRATION MUST BE GREATER THAN 100%; AND,
 - (c) All EFFLUENT CONCENTRATIONS equal to or LESS THAN the AEC must be nontoxic. Mortality observed in all effluent concentrations equal to or less than the AEC shall not be significantly different (at the 95% confidence level; $p = 0.05$) than that observed in the upstream receiving-water control sample. Where upstream receiving water is not available mortality observed in the AEC test concentration shall not be significantly different (at the 95% confidence level; $p = 0.05$) than that observed in the laboratory control. The appropriate statistical tests of significance shall be consistent with the most current edition of Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms or other federal guidelines as appropriate or required. Failure of one multiple-dilution test may be considered an effluent limit violation.

(c) Test Conditions

- (1) Test Type: Acute Static non-renewal
- (2) Test species: Ceriodaphnia dubia and Pimephales promelas (fathead minnow). Organisms used in WET testing shall come from cultures reared for the purpose of conducting toxicity tests and cultured in a manner consistent with the most current USEPA guidelines. All test animals shall be cultured as described in the most current edition of Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms.
- (3) Test period: 48 hours at the "Acceptable Effluent Concentration" (AEC) specified above.
- (4) When dilutions are required, upstream receiving stream water shall be used as dilution water. If upstream water is unavailable or if mortality in the upstream water exceeds 10%, "reconstituted" water will be used as dilution water. Procedures for generating reconstituted water will be supplied by the MDNR upon request.
- (5) Single-dilution tests will be run with:
 - (a) Effluent at the AEC concentration;
 - (b) 100% receiving-stream water (if available), collected upstream of the outfall at a point beyond any influence of the effluent; and
 - (c) reconstituted water.
- (6) Multiple-dilution tests will be run with:
 - (a) 100%, 50%, 25%, 12.5%, and 6.25% effluent, unless the AEC is less than 25% effluent, in which case dilutions will be 4 times the AEC, two times the AEC, AEC, 1/2 AEC and 1/4 AEC;
 - (b) 100% receiving-stream water (if available), collected upstream of the outfall at a point beyond any influence of the effluent; and
 - (c) reconstituted water.
- (7) If reconstituted-water control mortality for a test species exceeds 10%, the entire test will be rerun.
- (8) If upstream control mortality exceeds 10%, the entire test will be rerun using reconstituted water as the dilutant.

C. SPECIAL CONDITIONS (continued)

SUMMARY OF TEST METHODOLOGY FOR WHOLE-EFFLUENT TOXICITY TESTS

Whole-effluent-toxicity test required in NPDES permits shall use the following test conditions when performing single or multiple dilution methods. Any future changes in methodology will be supplied to the permittee by the Missouri Department of Natural Resources (MDNR). Unless more stringent methods are specified by the DNR, the procedures shall be consistent with the most current edition of Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms,

Test conditions for *Ceriodaphnia dubia*:

Test duration:	48 h
Temperature:	25 ± 1°C Temperatures shall not deviate by more than 3°C during the test.
Light Quality:	Ambient laboratory illumination
Photoperiod:	16 h light, 8 h dark
Size of test vessel:	30 mL (minimum)
Volume of test solution:	15 mL (minimum)
Age of test organisms:	<24 h old
No. of animals/test vessel:	5
No. of replicates/concentration:	4
No. of organisms/concentration:	20 (minimum)
Feeding regime:	None (feed prior to test)
Aeration:	None
Dilution water:	Upstream receiving water; if no upstream flow, synthetic water modified to reflect effluent hardness.
Endpoint:	Pass/Fail (Statistically significant Mortality when compared to upstream receiving water control or synthetic control if upstream water was not available at p< 0.05)
Test acceptability criterion:	90% or greater survival in controls

Test conditions for (*Pimephales promelas*):

Test duration:	48 h
Temperature:	25 ± 1°C Temperatures shall not deviate by more than 3°C during the test.
Light Quality:	Ambient laboratory illumination
Photoperiod:	16 h light/ 8 h dark
Size of test vessel:	250 mL (minimum)
Volume of test solution:	200 mL (minimum)
Age of test organisms:	1-14 days (all same age)
No. of animals/test vessel:	10
No. of replicates/concentration:	4 (minimum) single dilution method 2 (minimum) multiple dilution method
No. of organisms/concentration:	40 (minimum) single dilution method 20 (minimum) multiple dilution method
Feeding regime:	None (feed prior to test)
Aeration:	None, unless DO concentration falls below 4.0 mg/L; rate should not exceed 100 bubbles/min.
Dilution water:	Upstream receiving water; if no upstream flow, synthetic water modified to reflect effluent hardness.
Endpoint:	Pass/Fail (Statistically significant Mortality when compared to upstream receiving water control or synthetic control if upstream water was not available at p< 0.05)
Test Acceptability criterion:	90% or greater survival in controls

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.

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

Missouri Department of Natural Resources
Statement of Basis
North Kansas City Sewage Treatment Sludge Landfill
NPDES #: MO-0107263
Clay County

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

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

Facility Information

Facility Type: Sludge Landfill
 Facility SIC Code(s): 4953
 Facility Description: Outfalls for stormwater run-off and groundwater monitoring wells for assessing discharge to groundwater.

OUTFALL(S) TABLE:

OUTFALL	DESIGN FLOW (CFS)	TREATMENT LEVEL	EFFLUENT TYPE	DISTANCE TO CLASSIFIED SEGMENT (MI)
002	0.775e	none	stormwater	200' to Rock Creek
003	0.775e	none	stormwater	200' to Rock Creek
005	0.775e	none	stormwater	0' to Missouri River
006	0.775e	none	stormwater	200' to Missouri River
007	0.775e	none	stormwater	200' to Missouri River
008	0.775e	none	stormwater	200' to Missouri River
009	0.775e	none	stormwater	50' to Missouri River
0615	monitoring well	none	groundwater	75' to Missouri River
0616	monitoring well	none	groundwater	110' to Missouri River
0617	monitoring well	none	groundwater	50' to Missouri River
0618	monitoring well	none	groundwater	500' to Missouri River
0619	monitoring well	none	groundwater	860' to Missouri River
0620	monitoring well	none	groundwater	800' to Missouri River
0621	monitoring well	none	groundwater	500' to Missouri River

e- Estimate

Water Quality History: Flow has not been reported in Outfalls 002, 003, 005, 006, 007, 008 or 009 during the life of the previous permit and was not required by the previous permit. However, monitoring is required in groundwater monitoring wells #0615, #0616, #0617, #0618, #0619, #0620 and #0621. pH, chloride sulfate and non-reporting violations for groundwater during previous permit cycle.

Comments: There appears to have been flow through some of the culverts. Monitoring requirements for the culvert outfalls (002, 003, 005, 006, 007, 008 and 009) have been established in the new permit.
Some of the landfill area has been paved and is presently used as an employee parking lot for Harrah's Casino. The rest of the landfill surface area has been capped with clay and grassed. The area appears to be properly cared-for; however some minor erosional maintenance is required.

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 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**
Rock Creek	U		General criteria	10300101	Central Plains/ Blackwater / Lamine
Missouri River	P	00356	IRR, LWW, AQL, SCR,DWS, IND, 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
Rock Creek (U)	0	0	0
Missouri River (P)	10,969	14,179	17,882

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)].

Rationale and Derivation of Effluent Limitations & Permit Conditions

ANTI-BACKSLIDING:

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

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

Antidegradation:

Policies which ensure protection of water quality for a particular water body where the water quality exceeds levels necessary to protect fish and wildlife propagation and recreation on and in the water. This also includes special protection of waters designated as outstanding natural resource waters. Antidegradation plans are adopted by each State to minimize adverse effects on water.

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 is tentatively scheduled for August 2008.

APPLICABLE PERMIT PARAMETERS:

Effluent parameters for conventional, non-conventional, and toxic pollutants have been obtained from the previous NPDES operating permit for this facility, technology based effluent limits, water quality based effluent limits, and from appropriate sections of the renewal application.

COMPLIANCE AND ENFORCEMENT:

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

Not Applicable ;

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

PRETREATMENT PROGRAM:

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

Not Applicable ;

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

REASONABLE POTENTIAL ANALYSIS (RPA):

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

Applicable ;

A RPA was conducted for this facility for (parameters) and determined that this facility has the potential to cause or contribute to violations of Water Quality. Please see **APPENDIX A – RPA RESULTS**.

SANITARY SEWER OVERFLOWS (SSOs), AND INFLOW & INFILTRATION (I&I):

Collection systems are a critical element in the successful performance of the wastewater treatment process. Under certain conditions, poorly designed, built, managed, operated, and/or maintained systems can pose risks to public health, the environment, or both. Causes of SSOs include, but are not limited to, the following: high levels of I&I during wet weather; blockages; structural, mechanical, or electrical failures; collapsed or broken sewer pipes; insufficient conveyance capacity; and vandalism. Effective and continuous management, operation, and maintenance, as well as ensuring adequate capacity and rehabilitation when necessary are critical to maintaining collection system capacity and performance while extending the life of the system.

Not Applicable ;

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

SCHEDULE OF COMPLIANCE (SOC):

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

Not Applicable ;

This permit does not contain a SOC.

STORM WATER POLLUTION PREVENTION PLAN (SWPPP):

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.

Not Applicable ;

Wasteload allocations were not calculated.

WLA MODELING:

Not Applicable ;

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

WHOLE EFFLUENT TOXICITY (WET) TEST:

As per [10 CSR 20-7.031(1)(CC)], a toxicity test conducted under specified laboratory conditions on specific indicator organism; and as per [40 CFR §122.2], the aggregate toxic effect of an effluent measured directly by a toxicity test.

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

Applicable ;

Missouri River (1st classified water body) is listed on the 2006 Missouri 303(d) List for Chlordane and PCB's.

– This facility is not considered to be a source of the above listed pollutant(s) or considered to contribute to the impairment of the Missouri River.

Outfall #s 002 and 003 (discharge to Rock Creek)

EFFLUENT LIMITATIONS TABLE

PARAMETER	UNIT	BASIS FOR LIMITS	DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MODIFIED	PREVIOUS PERMIT LIMITATIONS
FLOW	GPD	1	*		*	NO	****
PH	SU	1	6.5 – 9.0		6.5 – 9.0	NO	****
TSS	MG/L	1	*		*	NO	****
SPECIFIC CONDUCTIVITY	µMHOS/CM	8	*		*	NO	****
NITRATE/NITRITE	mg/L	8	10		10	NO	****
SETTLABLE SOLIDS	mg/L	8	1.5		1.0	NO	****
WHOLE EFFLUENT TOXICITY (WET) TEST	% survival	8	See Derivation and Discussion of Limits below			NO	****
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.

N/A – Not applicable

S – Same as previous operating permit

Outfall #s 005, 006, 007, 008 and 009 (discharge to Missouri River)

EFFLUENT LIMITATIONS TABLE:

PARAMETER	UNIT	BASIS FOR LIMITS	DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MODIFIED	PREVIOUS PERMIT LIMITATIONS
FLOW	GPD	1	*		*	NO	****
PH		1	6.5 – 9.0		6.5 – 9.0	NO	****
TSS		1	*		*	NO	****
SPECIFIC CONDUCTIVITY	µMHOS/CM	8	*		*	NO	****
NITRATE/NITRITE	mg/L	8	10		10	NO	****
SETTLABLE SOLIDS	mg/L	8	1.5		1.0	NO	****
WHOLE EFFLUENT TOXICITY (WET) TEST	% survival	8	See Derivation and Discussion of Limits below			NO	****
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.

N/A – Not applicable

S – Same as previous operating permit

**GROUNDWATER MONITORING WELL #'S 0615, 0616, 0617, 0618, 0619, 0620 and 0621
EFFLUENT LIMITATIONS TABLE:**

PARAMETER	UNIT	BASIS FOR LIMITS	DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MODIFIED	PREVIOUS PERMIT LIMITATIONS
MW# 0615							
pH	SU	1	6.5 – 9.0		6.5 - 9.0	NO	S
BARIUM, TR	µG/L	2,3,8,9	1000		1000	NO	S
BERYLLIUM, TR	µG/L	2,3,8,9	4		4	NO	S
CADMIUM, TR	µG/L	2,3,8,9	5		5	NO	S
NICKEL, TR	µG/L	2,3,8,9	100		100	NO	S
SULFATE	MG/L	2,3,8,9	250		250	NO	S
TRICHLOROETHYLENE	µG/L	2,3,8,9	5		5	NO	S
PRIORITY POLLUTANTS	µG/L	8	*		*	NO	S
MW #0616							
pH	SU	1	6.5 – 9.0		6.5 – 9.0	NO	S
BARIUM, TR	µG/L	2,3,8,9	1000		1000	NO	S
BERYLLIUM, TR	µG/L	2,3,8,9	4		4	NO	S
CADMIUM, TR	µG/L	2,3,8,9	5		5	NO	S
CHROMIUM, TR	µG/L	2,3,8,9	100		100	NO	S
NICKEL, TR	µG/L	2,3,8,9	100		100	NO	S
SILVER, TR	µG/L	2,3,8,9	50		50	NO	S
TRICHLOROETHYLENE	MG/L	2,3,8,9	5		5	NO	S
PRIORITY POLLUTANTS	µG/L	8	*		*	NO	S
MW #0617							
pH	SU	1	6.5 – 9.0		6.5 – 9.0	NO	S
ARSENIC, TR	µG/L	2,3,8,9	100		100	NO	S
BARIUM, TR	µG/L	2,3,8,9	1000		1000	NO	S
BERYLLIUM, TR	µG/L	2,3,8,9	4		4	NO	S
CADMIUM, TR	µG/L	2,3,8,9	5		5	NO	S
CHROMIUM, TR	µG/L	2,3,8,9	100		100	NO	S
NICKEL, TR	µG/L	2,3,8,9	100		100	NO	S
SULFATE	MG/L	2,3,8,9	250		250	NO	S
TRICHLOROETHYLENE	µG/L	2,3,8,9	5		5	NO	S
PRIORITY POLLUTANTS	µG/L	8	*		*	NO	S
MW #0618							
pH	SU	1	6.5 – 9.0		6.5 – 9.0	NO	S
ARSENIC, TR	µG/L	2,3,8,9	100		100	NO	S
BARIUM, TR	µG/L	2,3,8,9	1000		1000	NO	S
BERYLLIUM, TR	µG/L	2,3,8,9	4		4	NO	S
CADMIUM, TR	µG/L	2,3,8,9	5		5	NO	S
CHROMIUM, TR	µG/L	2,3,8,9	100		100	NO	S
NICKEL, TR	µG/L	2,3,8,9	100		100	NO	S
NITRATE	MG/L	2,3,8,9	10		10	NO	S
SELENIUM, TR	µG/L	2,3,8,9	50		50	NO	S
SULFATE	µG/L	2,3,8,9	250		250	NO	S
TRICHLOROETHYLENE	MG/L	2,3,8,9	5		5	NO	S
PRIORITY POLLUTANTS	µG/L	8	*		*	NO	S
MW #0619							
pH	SU	1	6.5 – 9.0		6.5 – 9.0	NO	S
BARIUM, TR	µG/L	2,3,8,9	1000		1000	NO	S
BERYLLIUM, TR	µG/L	2,3,8,9	4		4	NO	S
CADMIUM, TR	µG/L	2,3,8,9	5		5	NO	S
CHLORIDE	MG/L	2,3,8,9	250		250	NO	S
NICKEL, TR	µG/L	2,3,8,9	100		100	NO	S
SULFATE	MG/L	2,3,8,9	250		250	NO	S
TRICHLOROETHYLENE	µG/L	2,3,8,9	5		5	NO	S
ZINC, TR	µG/L	2,3,8,9	5000		5000	NO	S
PRIORITY POLLUTANTS	µG/L	8	*		*	NO	S

MW #0620							
pH	SU	1	6.5 – 9.0		6.5 – 9.0	NO	S
BARIIUM, TR	µG/L	2,3,8,9	1000		1000	NO	S
BERYLLIUM, TR	µG/L	2,3,8,9	4		4	NO	S
CADMIUM, TR	µG/L	2,3,8,9	5		5	NO	S
CHLORIDE	MG/L	2,3,8,9	250		250	NO	S
CHROMIUM, TR	µG/L	2,3,8,9	100		100	NO	S
COPPER, TR	µG/L	2,3,8,9	1300		1300	NO	S
NICKEL, TR	µG/L	2,3,8,9	100		100	NO	S
SILVER, TR	µG/L	2,3,8,9	50		50	NO	S
SULFATE	MG/L	2,3,8,9	250		250	NO	S
TRICHLOROETHYLENE	µG/L	2,3,8,9	5		5	NO	S
ZINC, TR	µG/L	2,3,8,9	5000		5000	NO	S
PRIORITY POLLUTANTS	µG/L	8	*		*	NO	S
MW #0621							
pH	SU	1	6.5 – 9.0		6.5 – 9.0	NO	S
BARIIUM, TR	µG/L	2,3,8,9	1000		1000	NO	S
BERYLLIUM, TR	µG/L	2,3,8,9	4		4	NO	S
CADMIUM, TR	µG/L	2,3,8,9	5		5	NO	S
CHLORIDE	MG/L	2,3,8,9	250		250	NO	S
CHROMIUM, TR	µG/L	2,3,8,9	100		100	NO	S
COPPER, TR	µG/L	2,3,8,9	1300		1300	NO	S
NICKEL, TR	µG/L	2,3,8,9	100		100	NO	S
SILVER, TR	µG/L	2,3,8,9	50		50	NO	S
TRICHLOROETHYLENE	µG/L	2,3,8,9	5		5	NO	S
PRIORITY POLLUTANTS	µG/L	8	*		*	NO	S
MONITORING FREQUENCY	Please see Minimum Sampling and Reporting Frequency Requirements in the Derivation and Discussion Section below.						

- * - Monitoring requirement only.
- S - Same as previous operating permit

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. Antidegradation Policy
7. Water Quality Model
8. Best Professional Judgement
9. TMDL or Permit in lieu of TMDL
10. WET Test Policy

OUTFALL #'s 002, 003, 005, 006, 007, 008, 009 – DERIVATION AND DISCUSSION OF LIMITS:

- **pH.** A common effluent limitation for the protection of Aquatic Life, [10 CSR 20-7.015(8)(B)2.].
- **Total Suspended Solids (TSS).** A common effluent limitation for the protection of Aquatic Life, [10 CSR 20-7.015 (9)(F)].
- **Specific Conductivity.** An indicator parameter for total ions, conductive of electrical current, which are present in a water sample and may indicate the amount of pollution present. Best Professional Judgment.[10 CSR 20-7.015 (9) (F)].
- **Nitrate/Nitrite as N.** A common indicator parameter to show the nutrient level in discharged water which may endanger Aquatic Life [10 CSR 20-7.031 Table A].
- **Settleable Solids.** A common method for measuring the amount of heavier solids carried by moving surface water.
- **WET Test.** Whole Effluent Toxicity test shall be conducted as follows:

Summary of Wet Testing for This Permit				
Outfalls	A.E.C. %	Frequency	Sample Type	Month
002, 003, 005, 006, 007, 008 and 009	100	Once/ year	Grab	Any***

*** - Samples for WET Test analysis may be collected during any month within the calendar year that flow is occurring and should be collected within 2 hours of flow beginning. Except that a sample should not be collected for two consecutive months i.e. December 2007 and January 2008.

• **Minimum Sampling and Reporting Frequency Requirements for Outfalls 002, 003, 005, 006, 007, 008 and 009.**

PARAMETER	SAMPLING FREQUENCY	REPORTING FREQUENCY
FLOW	ONCE/MONTH	ONCE/QUARTER
TSS	ONCE/QUARTER	ONCE/QUARTER
PH (S.U.)	ONCE/QUARTER	ONCE/QUARTER
SPECIFIC CONDUCTIVITY	ONCE/QUARTER	ONCE/QUARTER
NITRATE/ NITRITE AS N	ONCE/QUARTER	ONCE/QUARTER
SETTLABLE SOLIDS	ONCE/QUARTER	ONCE/QUARTER

OUTFALL #'S 0615, 0616, 0617, 0618, 0619, 0620, 0621 – DERIVATION AND DISCUSSION OF LIMITS:

- **pH.** Effluent limitation has been retained from previous state operating permit, [10 CSR 20-7.031(4)(E)].
- **Chloride.** Effluent limitation has been retained from previous state operating permit. [10 CSR 20-7.031 Table A].
- **Nitrate.** Effluent limitation has been retained from previous state operating permit. [10 CSR 20-7.031 Table A].
- **Sulfate.** Effluent limitation has been retained from previous state operating permit. [10 CSR 20-7.031 Table A].
- **Priority Pollutants.** Effluent limitation has been retained from previous state operating permit. BPJ.
- **Metals.** Effluent limitations for metals in Groundwater are shown in 10 CSR 20-7.031 Table A.
 - **Arsenic, TR.** Effluent limitation has been retained from previous state operating permit
 - **Barium, TR.** Effluent limitation has been retained from previous state operating permit
 - **Beryllium, TR.** Effluent limitation has been retained from previous state operating permit
 - **Cadmium, TR.** Effluent limitation has been retained from previous state operating permit
 - **Chromium, TR.** Effluent limitation has been retained from previous state operating permit
 - **Copper, TR.** Effluent limitation has been retained from previous state operating permit
 - **Nickel, TR.** Effluent limitation has been retained from previous state operating permit
 - **Selenium, TR.** Effluent limitation has been retained from previous state operating permit
 - **Silver, TR.** Effluent limitation has been retained from previous state operating permit

- **Trichloroethylene.** Effluent limitation has been retained from previous state operating permit
- **Zinc, TR.** Effluent limitation has been retained from previous state operating permit
- **MINIMUM SAMPLING AND REPORTING FREQUENCY REQUIREMENTS FOR MONITORING WELLS #'s 0615, 0616, 0617, 0618, 0619, 0620, 0621.**

PARAMETER	SAMPLING FREQUENCY	REPORTING FREQUENCY
PH	ONCE/ YEAR	ONCE/ YEAR
ARSENIC, TR	ONCE/ YEAR	ONCE/ YEAR
BARIUM, TR	ONCE/ YEAR	ONCE/ YEAR
BERYLLIUM, TR	ONCE/ YEAR	ONCE/ YEAR
CADMIUM, TR	ONCE/ YEAR	ONCE/ YEAR
CHLORIDE	ONCE/ YEAR	ONCE/ YEAR
CHROMIUM, TR	ONCE/ YEAR	ONCE/ YEAR
COPPER, TR	ONCE/ YEAR	ONCE/ YEAR
NICKEL, TR	ONCE/ YEAR	ONCE/ YEAR
NITRATE	ONCE/ YEAR	ONCE/ YEAR
SELENIUM, TR	ONCE/ YEAR	ONCE/ YEAR
SILVER, TR	ONCE/ YEAR	ONCE/ YEAR
SULFATE	ONCE/ YEAR	ONCE/ YEAR
TRICHLOROETHYLENE	ONCE/ YEAR	ONCE/ YEAR
ZINC, TR	ONCE/ YEAR	ONCE/ YEAR
PRIORITY POLLUTANTS	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 28th day of the month following collection.

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 or within the operating permit. The proposed determinations are tentative pending public comment.

GENERAL ASSUMPTIONS OF THE STATEMENT:

1. A Statement assumes that [10 CSR 20-6.010(3) Continuing Authorities] has been or will be addressed in a Missouri State Operating Permit or Construction Permit Application.
2. A Statement does not indicate approval or disapproval of alternative analysis as per [10 CSR 20-7.015(4) Losing Streams], and/or any section of the effluent regulations.
3. Changes to Federal and State Regulations made subsequent to the drafting of this Statement may alter effluent limitations and or permit conditions.
4. Water Quality Based Effluent Limitations supercede Effluent Guidelines Limits only when they are more stringent. Mass limits derived from technology based limits are still appropriate.
5. A Statement does not allow discharges to waters of the state, and shall not be construed as a National Pollution Discharge Elimination System or Missouri State Operating Permit to discharge or a permit to construct, modify, or upgrade.
6. Limitations and other requirements in a Statement may change as Water Quality Standards, Methodology, and Implementation procedures change.

Date of Factsheet: 11/28/2007

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Appendices

APPENDIX A– RPA RESULTS:

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

This RPA is available upon request.