

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, MO
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
Facility Address: 2020 Bedford, North Kansas City, MO 64116

Legal Description: See following pages
UTM Coordinates: See following pages

Receiving Stream: See following pages
First Classified Stream and ID: See following pages
USGS Basin & Sub-watershed No.: Buckeye Creek-Missouri River (10300101-0301)

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

FACILITY DESCRIPTION

See page 2 for the facility description and a complete listing of outfalls and monitoring wells.

This permit does not authorize the land application of biosolids.


Leachate cannot be discharged under this permit. Stormwater which has come into contact with leachate is considered leachate and cannot be discharged. Leachate, and stormwater which 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 stormwater and groundwater discharges under the Missouri Clean Water Law and stormwater discharges under the National Pollutant Discharge Elimination System; it does not apply to other regulated areas. This permit may be appealed in accordance with Sections 640.013, 621.250, and 644.051.6 of the Law.

August 1, 2018
Effective Date


Edward B. Galbraith, Director, Division of Environmental Quality

July 31, 2023
Expiration Date


Chris Wieberg, Director, Water Protection Program

FACILITY DESCRIPTION (CONTINUED)

The North Kansas City Sewage Treatment Sludge Landfill has been closed and capped since 1987. This permit is for stormwater discharge and groundwater monitoring wells. The landfill is a mono-fill of sewage treatment sludge. Sampling is required at all stormwater outfalls and groundwater monitoring wells.

STORMWATER OUTFALLS

OUTFALL #002 – Stormwater; SIC # 4953

No longer part of regulated area. Inactivated May 2018.

Legal Description: NW¼, Sec.22, T50N, R33W, Clay County
UTM Coordinates: X = 366273, Y = 4333896
Receiving Stream: Tributary to Rock Creek
First Classified Stream and ID: Rock Creek (C) 3960
Est flow in 10 yr 24 hr precip event: 0.26 MGD

OUTFALL # 003 – Stormwater; SIC # 4953

No longer part of regulated area. Inactivated May 2018.

Legal Description: NW¼, Sec.22, T50N, R33W, Clay County
UTM Coordinates: X = 366466, Y = 4333951
Receiving Stream: Tributary to Rock Creek
First Classified Stream and ID: Rock Creek (C) 3960
Est flow in 10 yr 24 hr precip event: 0.29 MGD

OUTFALL #005 – not identified as present in application for permit renewal dated 8/1/2016; discharge not allowed.

OUTFALL # 006 – Stormwater; SIC # 4953

Receives stormwater from the northeast portion of the South landfill area. No treatment.

Legal Description: SW¼, Sec.22, T50N, R33W, Clay County
UTM Coordinates: X = 366428, Y = 4333412
Receiving Stream: Tributary to Missouri River
First Classified Stream and ID: Missouri River (P) 356; 303(d)
Est flow in 10 yr 24 hr precip event: 0.10 MGD

OUTFALL # 007 – Stormwater; SIC # 4953

Receives stormwater from the east portion of the South landfill area. No treatment.

Legal Description: SW¼, Sec.22, T50N, R33W, Clay County
UTM Coordinates: X = 366386, Y = 4333321
Receiving Stream: Tributary to Missouri River
First Classified Stream and ID: Missouri River (P) 356; 303(d)
Est flow in 10 yr 24 hr precip event: 0.31 MGD
Average Flow: Dependent on Precipitation

OUTFALL # 008 – Stormwater; SIC # 4953

Receives stormwater from the southeast portion of the South landfill area. No treatment.

Legal Description: SW¼, Sec.22, T50N, R33W, Clay County
UTM Coordinates: X = 366292, Y = 4333168
Receiving Stream: Tributary to Missouri River
First Classified Stream and ID: Missouri River (P) 356; 303(d)
Est flow in 10 yr 24 hr precip event: 0.42 MGD

OUTFALL # 009 – Stormwater; SIC # 4953

Receives stormwater from the south portion of the South Landfill area. No treatment.

Legal Description: SW¼, Sec.22, T50N, R33W, Clay County
UTM Coordinates: X = 366235, Y = 4333036
Receiving Stream: Tributary to Missouri River
First Classified Stream and ID: Missouri River (P) 356; 303(d)
Est flow in 10 yr 24 hr precip event: 0.21 MGD

FACILITY DESCRIPTION (CONTINUED)

GROUNDWATER MONITORING WELLS

MW # 615 –Groundwater monitoring well

Legal Description: SW¼, Sec.22, T50N, R33W, Clay County
UTM Coordinates: X = 366501, Y = 4333442

MW # 616 –Groundwater monitoring well

Legal Description: SW¼, Sec.22, T50N, R33W, Clay County
UTM Coordinates: X = 366353, Y = 4333201

MW # 617 –Groundwater monitoring well

Legal Description: SW¼, Sec.22, T50N, R33W, Clay County
UTM Coordinates: X = 366259, Y = 4333202

MW # 618 –Groundwater monitoring well

Legal Description: SW¼, Sec.22, T50N, R33W, Clay County
UTM Coordinates: X = 366193, Y = 4333136

MW # 619 – Groundwater monitoring well

Legal Description: SW¼, Sec.22, T50N, R33W, Clay County
UTM Coordinates: X = 366198, Y = 4333395

MW # 620 – Groundwater monitoring well

Legal Description: SW¼, Sec.22, T50N, R33W, Clay County
UTM Coordinates: X = 366328, Y = 4333602

MW# 621 – Groundwater monitoring well

Legal Description: SW¼, Sec.22, T50N, R33W, Clay County
UTM Coordinates: X = 366424, Y = 4333579

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

OUTFALLS #006, #007, #008, #009 <i>Stormwater Only</i>		TABLE A-1 FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS				
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 on August 1, 2018 and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:						
EFFLUENT PARAMETERS	UNITS	FINAL LIMITATIONS		BENCH-MARKS	MONITORING REQUIREMENTS ∞	
		DAILY MAXIMUM	MONTHLY AVERAGE		MEASUREMENT FREQUENCY ◇	SAMPLE TYPE
PHYSICAL						
Flow	MGD	*		-	once/quarter ◇	24 hr. est
Precipitation	inches	*		-	once/quarter ◇	measured
CONVENTIONAL						
Chemical Oxygen Demand	mg/L	*		-	once/quarter ◇	grab
pH Ω	SU	6.5 to 9.0		-	once/quarter ◇	grab
Total Suspended Solids	mg/L	**		100	once/quarter ◇	grab
NUTRIENTS						
Nitrate plus Nitrite	mg/L	**		10	once/quarter ◇	grab
MONITORING REPORTS SHALL BE SUBMITTED QUARTERLY; THE FIRST REPORT IS DUE OCTOBER 28, 2018 . THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						

* Monitoring requirement only.

** Monitoring requirement with associated benchmark.

∞ All samples shall be collected from a discharge resulting from a precipitation event greater than 0.1 inches in magnitude and that occurs at least 72 hours from the previously measurable precipitation event. If a discharge does not occur within the reporting period, report as no discharge. The total amount of precipitation should be noted from the event from which the samples were collected. Failure to sample the outfalls when discharge has occurred in a reporting period is a violation of this permit.

Ω The facility will report the minimum and maximum values. pH is not to be averaged.

◇ Quarterly sampling

MINIMUM QUARTERLY SAMPLING REQUIREMENTS			
QUARTER	MONTHS	QUARTERLY EFFLUENT PARAMETERS	REPORT IS DUE
First	January, February, March	Sample at least once during any month of the quarter	April 28 th
Second	April, May, June	Sample at least once during any month of the quarter	July 28 th
Third	July, August, September	Sample at least once during any month of the quarter	October 28 th
Fourth	October, November, December	Sample at least once during any month of the quarter	January 28 th

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS, CONTINUED

MONITORING WELLS #615, #616, #617, #618, #619, #620, #621 <i>Groundwater</i>		TABLE A-2 FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS				
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 on August 1, 2018 and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:						
EFFLUENT PARAMETERS	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
FIELD PARAMETERS						
Depth to Water	feet	*			once/quarter ◊	measured
Oxidation Reduction Potential	mV	*			once/quarter ◊	measured
pH €	SU	*			once/quarter ◊	grab
Purge Volume	gallons	*			once/quarter ◊	measured
Turbidity	NTU	*			once/quarter ◊	grab
METALS						
Arsenic, Total Recoverable	µg/L	*			once/quarter ◊	grab
Barium, Total Recoverable	µg/L	*			once/quarter ◊	grab
Beryllium, Total Recoverable	µg/L	4			once/quarter ◊	grab
Cadmium, Total Recoverable	µg/L	5			once/quarter ◊	grab
Chromium (III), Total Recoverable	µg/L	100			once/quarter ◊	grab
Copper, Total Recoverable	µg/L	*			once/quarter ◊	grab
Lead, 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
Zinc, Total Recoverable	µg/L	*			once/quarter ◊	grab
NUTRIENTS						
Ammonia as N	mg/L	*			once/quarter ◊	grab
Nitrate as N	mg/L	10			once/quarter ◊	grab
Nitrogen, Total (TN)	mg/L	*			once/quarter ◊	grab
OTHER						
Acetone	µg/L	*			once/quarter ◊	grab
Bis(2-ethylhexyl)phthalate	µg/L	*			once/quarter ◊	grab
Chloride	mg/L	*			once/quarter ◊	grab
Sulfate	mg/L	*			once/quarter ◊	grab
MONITORING REPORTS SHALL BE SUBMITTED QUARTERLY; THE FIRST REPORT IS DUE OCTOBER 28, 2018 . THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						

* Monitoring requirement only.

€ The facility will report the final pH value.

B. STANDARD CONDITIONS

In addition to specified conditions stated herein, this permit is subject to the attached **Part I** standard conditions dated **August 1, 2014** and hereby incorporated as though fully set forth herein.

C. SPECIAL CONDITIONS

1. The facility will be required to determine the seasonal groundwater flow of the site. The facility will submit the data and a summary with seasonal maps to the Department with the application for permit renewal.
2. The facility is required to establish at least one background (upgradient) well which is not influenced by seasonal changes. The well installation and development must occur by the expiration of the permit; the facility must include the well coordinates and log in the application for permit renewal. Alternatively, the permittee may submit data which establishes seasonal upgradient wells using established wells by using statistical software which includes an inter-well analysis providing reasonable assurances the data provided can establish an upgradient well based on river stage or season. The upgradient well must be hydraulically connected to the rest of the monitoring well network.
3. The facility must use proven and established well sampling procedures, such as those found in RCRA Ground-Water Monitoring: Draft Technical Guidance, November 1992, Chapter 7 to obtain quarterly representative samples.
4. Wells must be stabilized prior to sampling using either of the following methods:
 - (a) Clean bailers may be used to withdraw 3 well volumes prior to sampling; or,
 - (b) The facility may use low flow withdrawal and sampling methods and obtain stabilization of pH, ORP, and turbidity prior to sampling.
5. Electronic Discharge Monitoring Report (eDMR) Submission System
 - (a) Discharge Monitoring Reporting Requirements. The permittee must electronically submit compliance monitoring data via the eDMR system. In regards to Standard Conditions Part I, Section B, #7, the eDMR system is currently the only Department approved reporting method for this permit.
 - (b) Programmatic Reporting Requirements. The following reports (if required by this permit) must be electronically submitted as an attachment to the eDMR system until such a time when the current or a new system is available to allow direct input of the data:

Any additional report required by the permit excluding bypass reporting.

After such a system has been made available by the department, required data shall be directly input into the system by the next report due date.
 - (c) Other actions. The following shall be submitted electronically after such a system has been made available by the department:
 - (1) General Permit Applications/Notices of Intent to discharge (NOIs);
 - (2) Notices of Termination (NOTs);
 - (3) No Exposure Certifications (NOEs);
 - (4) Low Erosivity Waivers and Other Waivers from Stormwater Controls (LEWs); and
 - (5) Bypass reporting.
 - (d) Electronic Submissions. To access the eDMR system, use the following link in your web browser: <https://edmr.dnr.mo.gov/edmr/E2/Shared/Pages/Main/Login.aspx>.
 - (e) Waivers from Electronic Reporting. The permittee must electronically submit compliance monitoring data and reports unless a waiver is granted by the department in compliance with 40 CFR Part 127. The permittee may obtain an electronic reporting waiver by first submitting an eDMR Waiver Request Form: <http://dnr.mo.gov/forms/780-2692-f.pdf>. The department will either approve or deny this electronic reporting waiver request within 120 calendar days. Only permittees with an approved waiver request may submit monitoring data and reports on paper to the Department for the period that the approved electronic reporting waiver is effective.
6. The purpose of the Stormwater Pollution Prevention Plan (SWPPP) and the Best Management Practices (BMPs) listed herein is the prevention of pollution of waters of the state. A deficiency of a BMP means it was not effectively 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.

C. SPECIAL CONDITIONS (CONTINUED)

7. The facility's SIC code(s) or description is found in 40 CFR 122.26(b)(14) and/or 10 CSR 20-6.200(2) and therefore the facility shall implement a SWPPP which must be prepared and implemented upon permit issuance. The SWPPP must be kept on-site and should not be sent to the department unless specifically requested. The SWPPP must be reviewed and updated every five (5) years or as site conditions change (see Part III: Antidegradation Analysis and SWPPP sections in the fact sheet). 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: *Developing Your Stormwater Pollution Prevention Plan, A Guide for Industrial Operators*, (EPA 833-B-09-002) published by the EPA in February 2009 (www.epa.gov/npdes/pubs/industrial_swppp_guide.pdf). The SWPPP must include:
- (a) A listing of specific contaminants and their control measures (or BMPs) and a narrative explaining how BMPs are implemented to control and minimize the amount of contaminants potentially entering stormwater.
 - (b) The SWPPP must include a schedule for once per month site inspections and brief written reports. The inspection report must include precipitation information for the entire period since last inspection, as well as observations and evaluations of BMP effectiveness. Throughout coverage under this permit, the facility must perform ongoing SWPPP review and revision to incorporate any site condition changes.
 - i. Operational deficiencies must be corrected within seven (7) calendar days.
 - ii. Minor structural deficiencies must be corrected within fourteen (14) calendar days.
 - iii. Major structural deficiencies must be reported to the regional office within seven (7) days of discovery. The initial report shall consist of the deficiency noted, the proposed remedies, the interim or temporary remedies (including the general timing of the placement of the interim measures), and an estimate of the timeframe needed to wholly complete the repairs or construction. The permittee will work with the regional office to determine the best course of action, including but not limited to temporary structures to control stormwater runoff. The facility shall correct the major structural deficiency as soon as reasonably achievable.
 - iv. All actions taken to correct the deficiencies shall be included with the written report, including photographs.
 - v. 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 department and EPA 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 the department.
8. This permit stipulates pollutant benchmarks applicable to your discharge. The benchmarks do not constitute direct numeric effluent limitations; therefore, a benchmark exceedance alone is not a permit violation. Benchmark monitoring and visual inspections shall be used to determine the overall effectiveness of SWPPP and to assist you in knowing when additional corrective action may be necessary to protect water quality. If a sample exceeds a benchmark concentration you must review your SWPPP and your BMPs to determine what improvements or additional controls are needed to reduce that pollutant in your stormwater discharge(s).

Any time a benchmark exceedance occurs a Corrective Action Report (CAR) must be completed. A CAR is a document that records the efforts undertaken by the facility to improve BMPs to meet benchmarks in future samples. CARs must be retained with the SWPPP and available to the department upon request. If the efforts taken by the facility are not sufficient and subsequent exceedances of a benchmark occur, the facility must contact the department if a benchmark value cannot be achieved. Failure to take corrective action to address a benchmark exceedance and failure to make measureable progress towards achieving the benchmarks is a permit violation.

9. Permittee shall adhere to the following minimum Best Management Practices (BMPs):
- (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 stormwater 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 stormwater or provide other prescribed BMPs such as plastic lids and/or portable spill pans to prevent the commingling of stormwater 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. Any spills should be noted in the SWPPP.
 - (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 to comply with general water quality criteria, effluent limits, or benchmarks. This could include the use of straw bales, silt fences, or sediment basins, if needed.

C. SPECIAL CONDITIONS (CONTINUED)

10. To protect the general criteria found at 10 CSR 20-7.031(4), before releasing water accumulated in secondary containment areas, it must be examined for hydrocarbon odor and presence of sheen. If the presence of odor or sheen is indicated, the water shall be treated using an appropriate method or disposed of in accordance with legally approved methods, such as being sent to a wastewater treatment facility. Following treatment, the water shall be tested for oil and grease, benzene, toluene, ethylbenzene, and xylene using 40 CFR part 136 methods. All pollutant levels must be below the most protective, applicable standards for the receiving stream, found in 10 CSR 20-7.031 Table A. Records of all testing and treatment of water accumulated in secondary containment shall be stored in the SWPPP to be available on demand to DNR and EPA personnel.
11. The full implementation of this operating permit, which includes implementation of any applicable schedules of compliance, shall constitute compliance with all applicable federal and state statutes and regulations in accordance with §644.051.16, RSMo, and the CWA section 402(k); however, this permit may be reopened and modified, or alternatively revoked and reissued to 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 contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or controls any pollutant not limited in the permit.
12. All outfalls and permitted features must be clearly marked in the field.
13. **Changes in Discharges of Toxic Pollutant**
In addition to the reporting requirements under §122.41(1), all existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Director as soon as they know or have reason to believe:
 - (a) That an activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, 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;
 - (3) Five hundred micrograms per liter (500 µg/L) for 2,4-dinitrophenol and for 2-methyl-4, 6-dinitrophenol;
 - (4) One milligram per liter (1 mg/L) for antimony;
 - (5) Five (5) times the maximum concentration value reported for the pollutant in the permit application in accordance with 40 CFR 122.21(g)(7); or
 - (6) The notification level established by the department in accordance with 40 CFR 122.44(f).
 - (b) That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following “notification levels”:
 - (1) Five hundred micrograms per liter (500 µg/l);
 - (2) One milligram per liter (1 mg/l) for antimony;
 - (3) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with §122.21(g)(7).
 - (4) The level established by the Director in accordance with §122.44(f).
14. Report as no-discharge when a discharge does not occur during the report period.
15. **Reporting of Non-Detects**
 - (a) An analysis conducted by the permittee or their contracted laboratory shall be conducted in such a way that the precision and accuracy of the analyzed result can be enumerated.
 - (b) The permittee shall not report a sample result as “non-detect” without also reporting the detection limit of the test. Reporting as “non-detect” without also including the detection limit will be considered failure to report, which is a violation of this permit.
 - (c) The permittee shall report the “non-detect” result using the less than sign and the minimum detection limit (e.g. <10).
 - (d) Where the permit contains a Minimum Level (ML) and the permittee is granted authority in the permit to report zero in lieu of the < ML for a specified parameter (conventional, priority pollutants, metals, etc.), then zero (0) is to be reported for that parameter.
 - (e) See Standard Conditions Part I, Section A, #4 regarding proper detection limits used for sample analysis.
 - (f) When calculating monthly averages, one-half of the minimum detection limit (MDL) should be used instead of a zero. Where all data are below the MDL, the “<MDL” shall be reported as indicated in item (C).
16. It is a violation of the Missouri Clean Water Law to fail to pay fees associated with this permit (644.055 RSMo).

**MISSOURI DEPARTMENT OF NATURAL RESOURCES
FACT SHEET
FOR THE PURPOSE OF RENEWAL
OF
MO-0107263
NORTH KANSAS CITY SEWAGE TREATMENT SLUDGE 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 stormwater from certain point sources. All such discharges are unlawful without a permit (Section 301 of the "Clean Water Act"). After a permit is obtained, a discharge not in compliance with all permit terms and conditions is unlawful. Missouri State Operating Permits (MSOPs) are issued by the Director of the Missouri Department of Natural Resources (Department) under an approved program, operating in accordance with federal and state laws (Federal "Clean Water Act" and "Missouri Clean Water Law" Section 644 as amended). MSOPs are issued for a period of five (5) years unless otherwise specified for less.

As per [40 CFR Part 124.8(a)] and [10 CSR 20-6.020(1)2.] a factsheet shall be prepared to give pertinent information regarding the applicable regulations, rationale for the development of effluent limitations and conditions, and the public participation process for the Missouri State Operating Permit (MSOP or operating permit) listed below. A factsheet is not an enforceable part of an operating permit.

Part I. FACILITY INFORMATION

Facility Type: Industrial
 Facility SIC Code(s): 4953
 Application Date: 08/01/2016 (3 years late)
 Expiration Date: 08/21/2013
 Last Inspection: 04/26/2017 – in compliance

FACILITY DESCRIPTION:

The North Kansas City Sewage Treatment Sludge Landfill has been closed and capped since 1987. This permit is for stormwater discharge and groundwater monitoring wells. The landfill is a mono-fill of sewage treatment sludge. Sampling is required at all stormwater outfalls (six) and groundwater monitoring wells (seven).

This permit does not authorize the land application of biosolids.

Leachate cannot be discharged under this permit. Stormwater which has come into contact with leachate is considered leachate and cannot be discharged. Leachate, and stormwater which 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).

PERMITTED FEATURES TABLES:

STORMWATER OUTFALLS:

OUTFALL	AVERAGE FLOW (MGD)	EST FLOW IN 10 YR 24 HR PRECIP EVENT* (MGD)	TREATMENT LEVEL	EFFLUENT TYPE
#006	dependent on precipitation	0.10	BMPs	industrial stormwater
#007	dependent on precipitation	0.31	BMPs	industrial stormwater
#008	dependent on precipitation	0.42	BMPs	industrial stormwater
#009	dependent on precipitation	0.21	BMPs	industrial stormwater

*Estimated using rational method, Rational Coefficient 0.7, precipitation 5.5 inches/day, drainage areas estimated from map.

MONITORING WELLS

WELL	AVERAGE FLOW (MGD)	TREATMENT LEVEL	EFFLUENT TYPE
MW #615	n/a	n/a	groundwater
MW #616	n/a	n/a	groundwater
MW #617	n/a	n/a	groundwater
MW #618	n/a	n/a	groundwater
MW #619	n/a	n/a	groundwater
MW #620	n/a	n/a	groundwater
MW #621	n/a	n/a	groundwater

FACILITY PERFORMANCE HISTORY & COMMENTS:

The discharge monitoring reports were reviewed for the last five years. The permittee reported no discharge for all stormwater outfalls for the last five years. Records from previous renewals show this facility reported no discharge for that time period as well. It is a violation of this permit to report no discharge when a discharge has occurred. Samples must be taken and analyzed from the stormwater outfalls at least once a quarter when a qualifying rain event occurs.

Since the last permit renewal, a casino has been placed on the northern half of the property.

This facility has seven groundwater monitoring wells. Monitoring well data at this site shows exceedances of barium at MW #615; barium at MW #616; chloride, sulfate, and pH at #619; barium, chloride, and sulfate at MW #620; and barium, cadmium, chloride, and chromium at MW #621. In the application materials, MW #615 and MW #616 are listed as background wells. The Groundwater Quality Assessment Plan (GQAP) submitted with the closure documents to SWMP in December 1994 designated #618 and #619 as probable background wells; however, it is unclear to the permit writer whether the designation of “background” or “up-gradient” is meaningful at this site, considering the variability of flow of the groundwater in the alluvium. The alluvial aquifer is noted to be unconfined and hydraulically continuous with the Missouri River in the GQAP. Therefore, it is in the best professional judgment of the permit writer to attempt to consolidate monitoring and limits at all wells for permitting clarity. This renewal institutes monitoring requirements and final limits which are identical for all groundwater monitoring wells. The permit writer has also noted annual sampling is insufficient to classify the wastes at the site. The permit writer has determined quarterly sampling is necessary to wholly determine what effects, if any, the wastes stored on site are having on the groundwater in the area.

The permittee expressed they wished to have their permit terminated during the application process. It is in the best professional judgment of the permit writer the monitoring wells at this site may show groundwater contamination, with a possible source being the sewage sludge landfill. To terminate this permit, the department would require a comprehensive site evaluation or similar submission demonstrating the source of the groundwater contamination in this area is naturally occurring, and/or is definitively not caused by the landfill, or the contaminants are not causing risk to Missouri citizens or environment. The facility should explore options found in 10 CSR 20-7.015(7)(F)6. or 10 CSR 20-7.031(6)(D) and seek out information for the Missouri Risk-Based Corrective Action at <https://dnr.mo.gov/env/hwp/mrbcasupportdocs.htm>.

The last permit was not complete regarding the permit requirements and simply stated for all parameters the limitations were carried over from the previous permit; the previous permit erroneously implemented limits for many metals, not all of them based on Missouri’s water quality standards, either surficial or groundwater. This permit attempts to correct the previous permit’s deficiencies by explaining the permit determination while keeping backsliding to a minimum and continuing to protect waters of the state. The permit writer reviewed the EPA technical document “Landfilling of Sewage Sludge” to determine constituents of concern and also reviewed the annual priority pollutant scans, along with DMR data. This permit updates all limits to groundwater standards where applicable.

The Missouri Geological Survey (MGS) reviewed documentation related to quarterly groundwater monitoring data and a closure plan dated December 1994. The MGS determined sampling protocols and methods used for sampling the wells are inconsistent and incomplete. Because of the lack of reliable data, the permit writer has determined this facility must continue sampling the wells quarterly until sufficient and accurate data is provided. The MGS report is attached as Appendix A. This permit contains requirements related to proper sampling procedures and methods to assure accurate results in subsequent sampling events. The MGS believes, and the permit writer concurs, there is currently insufficient data to effectively and accurately characterize the site, and, although the permittee requested termination of the permit, the permit must be continued as the permittee has not demonstrated the site is not contaminating groundwater.

Part of the requirement is to obtain samples which are representative of the groundwater at the site. This means wells must be developed properly and samples are obtained using clean equipment. Each well must be measured to assure siltation has not occurred.

Each quarter's measurements must be compared to the previous quarters' and initial measurements. The facility must determine if siltation has occurred and redevelop the well if solids have become entrained in the well.

STORMWATER MONITORING OUTFALLS:



GROUNDWATER MONITORING WELLS



Part II. RECEIVING STREAM INFORMATION

RECEIVING WATER BODY'S WATER QUALITY:

The receiving streams, Tributary to Rock Creek, and Tributary to Missouri River, have no concurrent water quality data available. The Missouri River (P) (356) is on the 2012 303(d) list for *E. coli* contamination caused by municipal point source discharges and other non-point sources. This facility is not considered to cause or contribute to this impairment. The Missouri River (P) (356) is also under a 2006 TMDL for chlordane and PCBs. These substances are banned, and this facility is not considered to cause or contribute to this impairment. The permit writer found no other relevant water quality information.

303(D) LIST:

Section 303(d) of the federal Clean Water Act requires each state identify waters 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 impaired waters not addressed by normal water pollution control programs. <http://dnr.mo.gov/env/wpp/waterquality/303d/303d.htm>

✓ Not applicable; this facility does not discharge to an impaired segment of a 303(d) listed stream.

TOTAL MAXIMUM DAILY LOAD (TMDL):

A TMDL is a calculation of the maximum amount of a given pollutant a body of water can absorb before its water quality is affected; hence, the purpose of a TMDL is to determine the pollutant loading a specific waterbody can assimilate without exceeding water quality standards. If a water body is determined to be impaired as listed on the 303(d) list, then a watershed management plan or TMDL may be developed. The TMDL shall include the WLA calculation. <http://dnr.mo.gov/env/wpp/tmdl/>

✓ Not applicable; this facility is not associated with a TMDL.

APPLICABLE DESIGNATIONS OF WATERS OF THE STATE:

✓ As per Missouri's Effluent Regulations [10 CSR 20-7.015(1)(B)], the waters of the state are divided into the following seven categories. Each category lists effluent limitations for specific parameters, which are presented in each outfall's effluent limitation table and further discussed in the derivation & discussion of limits section.

- Missouri or Mississippi River:
- Lake or Reservoir:
- Losing:
- Metropolitan No-Discharge:
- Special Stream:
- Subsurface Water:
- All Other Waters:

RECEIVING STREAMS TABLE:

OUTFALL	WATERBODY NAME	CLASS	WBID	DESIGNATED USES*	DISTANCE TO SEGMENT (MILES)	12-DIGIT HUC
#002	Tributary to Rock Creek	n/a	n/a	GEN	0.11	10300101-0301 Buckeye Creek- Missouri River
	Rock Creek	C	3960	HHP, IRR, LWV, SCR, WBC-B, WWH (AQL)		
#003	Tributary to Rock Creek	n/a	n/a	GEN	0.04	
	Rock Creek	C	3960	HHP, IRR, LWV, SCR, WBC-B, WWH (AQL)		
#006	Tributary to Missouri River	n/a	n/a	GEN	0.07	
	Missouri River	P	0356	AQL, DWS, IND, IRR, LWV, SCR, WBC-B, HHP		
#007	Tributary to Missouri River	n/a	n/a	GEN	0.04	
	Missouri River	P	0356	AQL, DWS, IND, IRR, LWV, SCR, WBC-B, HHP		
#008	Tributary to Missouri River	n/a	n/a	GEN	0.07	
	Missouri River	P	356	AQL, DWS, IND, IRR, LWV, SCR, WBC-B, HHP		
#009	Tributary to Missouri River	n/a	n/a	GEN	0.05	
	Missouri River	P	0356	AQL, DWS, IND, IRR, LWV, SCR, WBC-B, HHP		

n/a not applicable

WBID = Waterbody Identification: Missouri Use Designation Dataset 8-20-13 MUDD V1.0 data can be found as an ArcGIS shapefile on MSDIS at http://msdis.missouri.edu/pub/Inland_Water_Resources/MO_2014_WQS_Stream_Classifications_and_Use_shp.zip

* As per 10 CSR 20-7.031 Missouri Water Quality Standards, the department defines the Clean Water Commission's water quality objectives in terms of "water uses to be maintained and the criteria to protect those uses." The receiving stream and 1st classified receiving stream's beneficial water uses to be maintained are in the receiving stream table in accordance with [10 CSR 20-7.031(1)(C)].

Uses which may be found in the receiving streams table, above:

10 CSR 20-7.031(1)(C)1.:

AQL = Protection of aquatic life (Current narrative use(s) are defined to ensure the protection and propagation of fish shellfish and wildlife, which is further subcategorized as: WWH = Warm Water Habitat; CLH = Cool Water Habitat; CDH = Cold Water Habitat; EAH = Ephemeral Aquatic Habitat; MAH = Modified Aquatic Habitat; LAH = Limited Aquatic Habitat. This permit uses AQL effluent limitations in 10 CSR 20-7.031 Table A for all habitat designations unless otherwise specified.)

10 CSR 20-7.031(1)(C)2.: Recreation in and on the water

WBC = Whole Body Contact recreation where the entire body is capable of being submerged;

WBC-A = Whole body contact recreation supporting swimming uses and has public access;

WBC-B = Whole body contact recreation supporting swimming;

SCR = Secondary Contact Recreation (like fishing, wading, and boating).

10 CSR 20-7.031(1)(C)3. to 7.:

HHP (formerly HHF) = Human Health Protection as it relates to the consumption of fish;

IRR = Irrigation for use on crops utilized for human or livestock consumption;

LWW = Livestock and wildlife watering (Current narrative use is defined as LWP = Livestock and Wildlife Protection);

DWS = Drinking Water Supply;

IND = Industrial water supply

10 CSR 20-7.031(1)(C)8-11.: Wetlands (10 CSR 20-7.031 Table A currently does not have corresponding habitat use criteria for these defined uses)

WSA = Storm- and flood-water storage and attenuation; **WHP** = Habitat for resident and migratory wildlife species;

WRC = Recreational, cultural, educational, scientific, and natural aesthetic values and uses; **WHC** = Hydrologic cycle maintenance.

10 CSR 20-7.031(6): **GRW** = Groundwater

MIXING CONSIDERATIONS:

Mixing zone: not allowed [10 CSR 20-7.031(5)(A)4.B.(I)(a)].

Zone of initial dilution: not allowed [10 CSR 20-7.031(5)(A)4.B.(I)(b)].

RECEIVING STREAM MONITORING REQUIREMENTS:

No receiving water monitoring requirements are recommended at this time.

Part III. RATIONALE AND DERIVATION OF EFFLUENT LIMITATIONS & PERMIT CONDITIONS

ALTERNATIVE EVALUATIONS FOR NEW FACILITIES:

As per [10 CSR 20-7.015(4)(A)], discharges to losing streams shall be permitted only after other alternatives including land application, discharges to a gaining stream and connection to a regional wastewater treatment facility have been evaluated and determined to be unacceptable for environmental and/or economic reasons.

✓ Not applicable; the facility does not discharge to a losing stream as defined by [10 CSR 20-2.010(36)] & [10 CSR 20-7.031(1)(N)], or is an existing facility.

ANTI-BACKSLIDING:

Federal Regulations [CWA §303(d)(4); CWA §402(c); 40 CFR Part 122.44(I)] require a reissued permit to be as stringent as the previous permit with some exceptions. Backsliding (a less stringent permit limitation) is only allowed under certain conditions.

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

✓ The Department determined technical mistakes or mistaken interpretations of law were made in issuing the permit under section 402(a)(1)(b).

- The previous permit limits for outfall #002, #003, #006, #007, #008, and #009 were established in error, based on limits for process wastewater, however, these are stormwater outfalls. This renewal establishes limits and benchmarks appropriate for stormwater discharges. There will be no changes to industrial activities onsite or the composition of the stormwater discharge as a result of this renewal. The benchmark concentrations and required corrective actions within this permit are protective of the receiving stream's uses to be maintained. Nitrate/nitrite was changed to a benchmark at these outfalls.

- Monthly averages were not implemented for all stormwater outfalls in this permit as the discharge consists of only stormwater which is not continuous pursuant to 40 CFR 122.45(d). Further, average monthly limitations are impracticable measures of non-continuous stormwater discharges because they vary widely in frequency, magnitude, and duration. This permit applies only acute short-term or daily maximum measures which represent stormwater discharges which are acute and sporadic in nature. Discharges of industrial stormwater rarely persist for long durations, making them impracticable to assess using measures with long term exposures or averaging periods. Last, the instream water quality target remains unchanged and the conditions of this permit are protective of both narrative and numeric water quality criteria.

- The previous permit contained a specific set of prohibitions related to general criteria found in 10 CSR 20-7.031(4); however, there was no determination as to whether the discharges have reasonable potential to cause or contribute to excursion of those general water quality standards in the previous permit. Federal regulations 40 CFR 122.44(d)(1)(iii) requires in instances where reasonable potential (RP) to cause or contribute to an exceedance of a water quality standard exists, a numeric limitation must be included in the permit. Rather than conducting the appropriate RP determination and establishing numeric effluent limitations for specific pollutant parameters, the previous permit simply placed the prohibitions in the permit. These conditions were removed from the permit. Appropriate reasonable potential determinations were conducted for each general criterion listed in 10 CSR 20-7.031(4) and effluent limitations were placed in the permit for those general criteria where it was determined the discharge had reasonable potential to cause or contribute to excursions of the general criteria. Specific effluent limitations were not included for those general criteria where it was determined the discharges will not cause or contribute to excursions of general criteria. Removal of the prohibitions does not reduce the protections of the permit or allow for impairment of the receiving stream. The permit maintains sufficient effluent limitations, monitoring requirements and best management practices to protect water quality.
- Settleable solids and specific conductivity are removed from the stormwater outfalls. It is in the best professional judgment of the permit writer specific conductivity is an indicator pollutant; the permit writer replaces it with COD as a better indicator of the pollutants at this site. Settleable solids is removed as total suspended solids is already required in this permit and is a better indicator pollutant for sediment discharges in stormwater.
- New information was available to the permit writer and support removing limits on some parameters in the groundwater monitoring wells; certain limitations were established in error (see Part IV), certain limits show no reasonable potential:
 - pH – limit not required; not a surface water discharge
 - Total recoverable arsenic – limit for wells #617 and #618 removed, no RP
 - Total recoverable barium – limit of 1000 µg/L not based on WQS or technology at the site; limits for all wells removed
 - Total recoverable copper – limit of 1,300 µg/L for wells #620 and #621 removed; no RP
 - Total recoverable nickel – limit of 100 µg/L at all wells removed; no RP
 - Total recoverable selenium – limit of 50 µg/L at well #618 removed; RP not established
 - Total recoverable silver – limit of 50 µg/L at wells #616 & # 622 and limit of 250 µg/L at well #620 removed as no RP has been established
 - Total recoverable zinc – limit of 5,000 µg/L for wells #619 and #620 removed; no RP
 - Chloride – limits for wells #619, #620, & #621 removed – limit established in previous permit was not for the groundwater use
 - Sulfate – limits for wells #615, #617, #618, #619, and #620 removed – limit established in previous permit was not for the groundwater use

ANTIDegradation REVIEW:

For process water discharge with new, altered, or expanding discharges, the department is to document, by means of antidegradation review, if the use of a water body's available assimilative capacity is justified. In accordance with Missouri's water quality regulations for antidegradation [10 CSR 20-7.031(3)], degradation may be justified by documenting the socio-economic importance of a discharge after determining the necessity of the discharge. Facilities must submit the antidegradation review request to the department prior to establishing, altering, or expanding discharges. See <http://dnr.mo.gov/env/wpp/permits/antideg-implementation.htm>

- ✓ Not applicable; the facility has not submitted information proposing expanded or altered process water discharge; no further degradation proposed therefore no further review necessary.

For stormwater discharges with new, altered, or expanding discharges, the stormwater BMP chosen for the facility, through the antidegradation analysis performed by the facility, must be implemented and maintained at the facility. Failure to implement and maintain the chosen BMP alternative is a permit violation; see SWPPP.

- ✓ Applicable; the facility must review and maintain stormwater BMPs as appropriate.

BENCHMARKS:

When a permitted feature or outfall consists of only stormwater, a benchmark may be implemented at the discretion of the permit writer. Benchmarks require the facility to monitor, and if necessary, replace and update stormwater control measures. Benchmark concentrations are not effluent limitations. A benchmark exceedance, therefore, is not a permit violation; however, failure to take corrective action is a violation of the permit. Benchmark monitoring data is used to determine the overall effectiveness of control measures and to assist the permittee in knowing when additional corrective actions may be necessary to comply with the limitations of the permit.

Because of the fleeting nature of stormwater discharges, the department, under the direction of EPA guidance, has determined monthly averages are capricious measures of stormwater discharges. The *Technical Support Document for Water Quality Based Toxics Control* (EPA/505/2-90-001; 1991) Section 3.1 indicates most procedures within the document apply only to water quality based approaches, not end-of-pipe technology-based controls. Hence, stormwater only outfalls will generally only contain a maximum

daily limit (MDL), benchmark, or monitoring requirement determined by the site specific conditions including the receiving water's current quality. While inspections of the stormwater BMPs occur monthly, facilities with no compliance issues are usually expected to sample stormwater quarterly.

Numeric benchmark values are based on water quality standards or other stormwater permits including guidance forming the basis of Environmental Protection Agency's (EPA's) *Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity* (MSGP). Because precipitation events are sudden and momentary, benchmarks based on state or federal standards or recommendations use the Criteria Maximum Concentration (CMC) value, or acute standard. The CMC is the estimate of the highest concentration of a material in surface water to which an aquatic community can be exposed briefly without resulting in an unacceptable effect. The CMC for aquatic life is intended to be protective of the vast majority of the aquatic communities in the United States.

- ✓ Applicable; this facility has stormwater-only outfalls with benchmark constraints. The benchmarks listed are consistently achieved in stormwater discharges by a variety of other industries with SWPPPs.

BIOSOLIDS & SEWAGE SLUDGE:

Biosolids are solid materials resulting from domestic wastewater treatment meeting federal and state criteria for beneficial use (i.e. fertilizer). Sewage sludge is solid, semi-solid, or liquid residue generated during the treatment of domestic sewage in a treatment works; including but not limited to, domestic septage; scum or solids removed in primary, secondary, or advanced wastewater treatment process; and material derived from sewage sludge. Sewage sludge does not include ash generated during the firing of sewage sludge in a sewage sludge incinerator or grit and screening generated during preliminary treatment of domestic sewage in a treatment works. Additional information: <http://extension.missouri.edu/main/DisplayCategory.aspx?C=74> (WQ422 through WQ449).

- ✓ Permittee is not authorized to land apply biosolids.

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.

EFFLUENT LIMITATION GUIDELINE:

Effluent Limitation Guidelines, or ELGs, are found at 40 CFR 400-499. These are limitations established by the EPA based on the SIC code and the type of work a facility is conducting. Most ELGs are for process wastewater and some address stormwater. All are technology based limitations which must be met by the applicable facility at all times.

- ✓ The facility has an associated ELG (40 CFR 445) but does not discharge wastewater to waters of the state; stormwater and groundwater discharges are not addressed by the ELG.

GROUNDWATER MONITORING:

Groundwater is a water of the state according to 10 CSR 20-7.015(7) and 10 CSR 20-7.031(6) and must be protected accordingly.

- ✓ This facility is monitoring the groundwater at the site because the facility was determined to discharge effluent to the subsurface aquifer, and monitoring is required to determine compliance with Water Quality Standards. This permit establishes quarterly monitoring to assist in determining the seasonal variability of the wells at the site.
- ✓ The facility is being required to determine the seasonal groundwater flow at the site in special condition #2. The facility should interpret this to mean installing pressure transducers for a year in each well to determine the groundwater flow. The facility may use a similar alternate method. All data will be submitted with the application for permit renewal. The facility should submit an electronic dataset and a narrative explaining the data obtained through sampling.
- ✓ The facility is being required to establish at least one background (upgradient) well. This well may be one currently established at the site, or may be a new installation. Upgradient wells must be static, in that a well cannot be established which is only "upgradient" only part of the time. The well designated as upgradient must consistently show background levels of contaminants at all times. If a background well cannot be established, the facility should contact the Missouri Geological Survey (<https://dnr.mo.gov/geology/>) for assistance. Alternatively, the facility may establish seasonal upgradient wells using statistical software which shows inter-well differences seasonally therefore a certain well may be used seasonally to show no contamination.

INDUSTRIAL SLUDGE:

Industrial sludge is solid, semi-solid, or liquid residue generated during the treatment of industrial process wastewater in a treatment works; including but not limited to, scum or solids removed in primary, secondary, or advanced wastewater treatment process; scum and solids filtered from water supplies and backwashed; and a material derived from industrial sludge.

- ✓ Not applicable; sludge is not generated at this facility.

REASONABLE POTENTIAL ANALYSIS (RPA):

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

quality standards. If the permit writer determines any give pollutant has the reasonable potential to cause or contribute to an in-stream excursion above the WQS, the permit must contain effluent limits for that pollutant [40 CFR Part 122.44(d)(1)(iii)].

- ✓ Not applicable; an RPA was not conducted for this facility. This permit establishes permit limits and benchmarks for stormwater. The department has determined stormwater is not a continuous discharge and is therefore not necessarily dependent on mathematical RPAs. However, the permit writer completed an RPD, a reasonable potential determination, using best professional judgment for all of the appropriate parameters in this permit. An RPD consists of reviewing application data and/or discharge monitoring data for the last five years and comparing those data to narrative or numeric water quality criteria. In addition, RPA calculations are not used for groundwater monitoring wells as an RPA is designed for discharge to surface water.

SCHEDULE OF COMPLIANCE (SOC):

A schedule of remedial measures included in a permit, including an enforceable sequence of interim requirements (actions, effluent limits, 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. SOC's are allowed under 40 CFR 122.47 providing certain conditions are met.

- ✓ Not applicable; this permit does not contain an SOC.

SPILL REPORTING:

Per 10 CSR 24-3.010, any emergency involving a hazardous substance must be reported to the department's 24 hour Environmental Emergency Response hotline at (573) 634-2436 at the earliest practicable moment after discovery. The department may require the submittal of a written report detailing measures taken to clean up a spill. These reporting requirements apply whether or not the spill results in chemicals or materials leaving the permitted property or reaching waters of the state. This requirement is in addition to the noncompliance reporting requirement found in Standard Conditions Part I. <http://dnr.mo.gov/env/esp/spillbill.htm>

STORMWATER PERMITTING: (OUTFALLS #002, #003, #006, #007, #008, AND #009)

A standard mass-balance equation cannot be calculated for stormwater from this facility because the stormwater flow and flow in the receiving stream cannot be determined for conditions on any given day. The amount of stormwater 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 climatic conditions, size of watershed, amount of surfaces with reduced permeability (houses, parking lots, and the like) in the watershed, hydrogeology, topography, etc. Decreased permeability increases the flash of the stream.

It is likely 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 a discharge does occur from this facility for four continuous days, some amount of flow will occur in the receiving stream. This flow will dilute stormwater discharges from a facility. For these reasons, most industrial stormwater 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(4) and (5)(4)4.B.]. Therefore, industrial stormwater 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 staff are unable to perform statistical Reasonable Potential Analysis (RPA). However, staff will use their best professional judgment in determining if a facility has a potential to violate Missouri's Water Quality Standards.

STORMWATER POLLUTION PREVENTION PLAN (SWPPP):

In accordance with 40 CFR 122.44(k), Best Management Practices (BMPs) must be used to control or abate the discharge of pollutants when: 1) Authorized under section 304(e) of the Clean Water Act (CWA) for the control of toxic pollutants and hazardous substances from ancillary industrial activities; 2) Authorized under section 402(p) of the CWA for the control of stormwater discharges; 3) Numeric effluent limitations are infeasible; or 4) the practices are reasonably necessary to achieve effluent limitations and standards or to carry out the purposes and intent of the CWA. In accordance with the EPA's *Developing Your Stormwater Pollution Prevention Plan, A Guide for Industrial Operators*, (Document number EPA 833-B-09-002) [published by the United States Environmental Protection Agency (USEPA) in February 2009], BMPs are measures or practices used to reduce the amount of pollution entering waters of the state from a permitted facility. BMPs may take the form of a process, activity, or physical structure. Additionally in accordance with the Stormwater Management, a SWPPP is a series of steps and activities to 1) identify sources of pollution or contamination, and 2) select and carry out actions which prevent or control the pollution of storm water discharges.

A SWPPP must be prepared by the permittee if the SIC code is found in 40 CFR 122.26(b)(14) and/or 10 CSR 20-6.200(2). A SWPPP may be required of other facilities where stormwater has been identified as necessitating better management. The purpose of a SWPPP is to comply with all applicable stormwater regulations by creating an adaptive management plan to control and mitigate stream pollution from stormwater runoff. Developing a SWPPP provides opportunities to employ appropriate BMPs to minimize the risk of pollutants being discharged during storm events. The following paragraph outlines the general steps the permittee should take to determine which BMPs will work to achieve the benchmark values or limits in the permit. This section is not intended to be all

encompassing or restrict the use of any physical BMP or operational and maintenance procedure assisting in pollution control. Additional steps or revisions to the SWPPP may be required to meet the requirements of the permit.

Areas which should be included in the SWPPP are identified in 40 CFR 122.26(b)(14). Once the potential sources of stormwater pollution have been identified, a plan should be formulated to best control the amount of pollutant being released and discharged by each activity or source. This should include, but is not limited to, minimizing exposure to stormwater, good housekeeping measures, proper facility and equipment maintenance, spill prevention and response, vehicle traffic control, and proper materials handling. Once a plan has been developed the facility will employ the control measures determined to be adequate to achieve the benchmark values discussed above. The facility will conduct monitoring and inspections of the BMPs to ensure they are working properly and re-evaluate any BMP not achieving compliance with permitting requirements. For example, if sample results from an outfall show values of TSS above the benchmark value, the BMP being employed is deficient in controlling stormwater pollution. Corrective action should be taken to repair, improve, or replace the failing BMP. This internal evaluation is required at least once per month but should be continued more frequently if BMPs continue to fail. If failures do occur, continue this trial and error process until appropriate BMPs have been established.

For new, altered, or expanded stormwater discharges, the SWPPP shall identify reasonable and effective BMPs while accounting for environmental impacts of varying control methods. The antidegradation analysis must document why no discharge or no exposure options are not feasible. The selection and documentation of appropriate control measures shall serve as an alternative analysis of technology and fulfill the requirements of antidegradation [10 CSR 20-7.031(3)]. For further guidance, consult the antidegradation implementation procedure (<http://dnr.mo.gov/env/wpp/docs/AIP050212.pdf>).

Alternative Analysis (AA) evaluation of the BMPs is a structured evaluation of BMPs that are reasonable and cost effective. The AA evaluation should include practices that are designed to be: 1) non-degrading; 2) less degrading; or 3) degrading water quality. The glossary of AIP defines these three terms. The chosen BMP will be the most reasonable and effective management strategy while ensuring the highest statutory and regulatory requirements are achieved and the highest quality water attainable for the facility is discharged. The AA evaluation must demonstrate why “no discharge” or “no exposure” is not a feasible alternative at the facility. This structured analysis of BMPs serves as the antidegradation review, fulfilling the requirements of 10 CSR 20-7.031(3) Water Quality Standards and *Antidegradation Implementation Procedure* (AIP), Section II.B.

If parameter-specific numeric exceedances continue to occur and the permittee feels there are no practicable or cost-effective BMPs which will sufficiently reduce a pollutant concentration in the discharge to the benchmark values established in the permit, the permittee can submit a request to re-evaluate the benchmark values. This request needs to include 1) a detailed explanation of why the facility is unable to comply with the permit conditions and unable to establish BMPs to achieve the benchmark values; 2) financial data of the company and documentation of cost associated with BMPs for review and 3) the SWPPP, which should contain adequate documentation of BMPs employed, failed BMPs, corrective actions, and all other required information. This will allow the department to conduct a cost analysis on control measures and actions taken by the facility to determine cost-effectiveness of BMPs. The request shall be submitted in the form of an operating permit modification; the application is found at: <http://dnr.mo.gov/forms/index.html>.

✓ Applicable; a SWPPP shall be developed and implemented for this facility.

TECHNOLOGY-BASED EFFLUENT LIMITATIONS (TBEL):

One of the major strategies of the Clean Water Act (CWA) in making “reasonable further progress toward the national goal of eliminating the discharge of all pollutants” is to require effluent limitations based on the capabilities of the technologies available to control those discharges. Technology-based effluent limitations (TBELs) aim to prevent pollution by requiring a minimum level of effluent quality attainable using demonstrated technologies for reducing discharges of pollutants or pollution into the waters of the United States. TBELs are developed independently of the potential impact of a discharge on the receiving water, which is addressed through water quality standards and water quality-based effluent limitations (WQBELs). The NPDES regulations at Title 40 of the Code of Federal Regulations (CFR) 125.3(a) require NPDES permit writers to develop technology-based treatment requirements, consistent with CWA § 301(b) and § 402(a)(1), represent the minimum level of control that must be imposed in a permit. The regulation also indicates permit writers must include in permits additional or more stringent effluent limitations and conditions, including those necessary to protect water quality. Regardless of the technology chosen to be the basis for limitations, the facility is not required to install the technology, only to meet the established TBEL.

✓ Not applicable; this facility does not discharge process wastewater therefore is not subject to TBEL POC analysis.

VARIANCE:

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

✓ Not applicable; this permit is not drafted under premise of a petition for variance.

WASTELOAD ALLOCATIONS (WLA) FOR LIMITS:

As per [10 CSR 20-2.010(78)], the WLA is the amount of pollutant each discharger is allowed to discharge into the receiving stream without endangering water quality. Two general types of effluent limitations, technology-based effluent limits (TBELs) and water quality based effluent limits (WQBELs) are reviewed. If one limit does provide adequate protection for the receiving waters, then the other must be used.

- ✓ Not applicable; wasteload allocations were not calculated.

WLA MODELING:

Permittees may submit site specific studies to better determine the site specific wasteload allocations applied in permits.

- ✓ Not applicable; a WLA study was either not submitted or determined not applicable by department staff.

WATER QUALITY STANDARDS:

Per 10 CSR 20-7.031(4), general criteria shall be applicable to all waters of the state at all times including mixing zones. Additionally, 40 CFR 122.44(d)(1) directs the department to establish in each NPDES permit to include conditions to achieve water quality established under Section 303 of the Clean Water Act, including state narrative criteria for water quality.

WHOLE EFFLUENT TOXICITY (WET) TEST:

A WET test is a quantifiable method to determine discharges from the facility cause 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 testing for this facility. The previous permit required WET testing for the stormwater discharges. The permit writer uses best professional judgment to remove WET testing from this permit, as WET testing in stormwater is generally non-repeatable and may not add useful permitting information. No previous WET tests were performed, as this facility reported no discharge for the entire history of this permit.

Part IV. EFFLUENT LIMITS DETERMINATION

Effluent limitations derived and established in the below effluent limitations table are based on current operations of the facility. Effluent means both process water and stormwater. Any flow through the outfall is considered a discharge and must be sampled and reported as provided below. Future permit action due to facility modification may contain new operating permit terms and conditions that supersede the terms and conditions, including effluent limitations, of this operating permit. Daily maximums and monthly averages are required under 40 CFR 122.45(d)(1) for continuous discharges not from a POTW.

GENERAL CRITERIA CONSIDERATIONS:

In accordance with 40 CFR 122.44(d)(1), effluent limitations shall be placed into permits for pollutants which have been determined to cause, have the reasonable potential to cause, or to contribute to an excursion above any State water quality standard, including State narrative criteria for water quality. The rule further states pollutants which have been determined to cause, have the reasonable potential to cause, or contribute to an excursion above a narrative criterion within an applicable State water quality standard, the permit shall contain a numeric effluent limitation to protect that narrative criterion. The previous permit included the narrative criteria as specific prohibitions placed upon the discharge. These prohibitions were included in the permit absent any discussion of the discharge's reasonable potential to cause or contribute to an excursion of the criterion. In order to comply with this regulation, the permit writer has completed a reasonable potential determination on whether the discharge has reasonable potential to cause, or contribute to an excursion of the general criteria listed in 10 CSR 20-7.031(4). These specific requirements are listed below followed by derivation and discussion (the lettering matches that of the rule itself, under 10 CSR 20-7.031(4)). In instances where reasonable potential exists, the permit includes numeric limitations to address the reasonable potential. In instances where reasonable potential does not exist the permit includes monitoring of the discharges potential to impact the receiving stream's narrative criteria. Finally, all of the previous permit narrative criteria prohibitions have been removed from the permit given they are addressed by numeric limits where reasonable potential exists. It should also be noted that Section 644.076.1, RSMo as well as Section D – Administrative Requirements of Standard Conditions Part I of this permit state that it shall be unlawful for any person to cause or permit any discharge of water contaminants from any water contaminant or point source located in Missouri that is in violation of sections 644.006 to 644.141 of the Missouri Clean Water Law or any standard, rule, or regulation promulgated by the commission.

- (A) 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.
- For all outfalls, there is no RP for putrescent bottom deposits preventing full maintenance of beneficial uses because nothing disclosed by the permittee at renewal for these outfalls indicates putrescent wastewater would be discharged from the facility.
 - For all outfalls, there is no RP for unsightly or harmful bottom deposits preventing full maintenance of beneficial uses because all outfalls have TSS limitations; however, they are all based on technology for the processes involved; values discharged from all outfalls are typically below WQ limitations, therefore no RP.
- (B) Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses.

- For all outfalls, there is no RP for oil in sufficient amounts to be unsightly preventing full maintenance of beneficial uses because nothing disclosed by the permittee at renewal or during prior sampling for DMR requirements for these outfalls indicates oil will be present in sufficient amounts to impair beneficial uses.
 - For all outfalls, there is no RP for scum and floating debris in sufficient amounts to be unsightly preventing full maintenance of beneficial uses because nothing disclosed by the permittee at renewal for these outfalls indicates scum and floating debris will be present in sufficient amounts to impair beneficial uses
- (C) Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses.
- For all outfalls, there is no RP for unsightly color or turbidity in sufficient amounts preventing full maintenance of beneficial uses because nothing disclosed by the permittee at renewal for these outfalls indicates unsightly color or turbidity will be present in sufficient amounts to impair beneficial uses.
 - For all outfalls, there is no RP for offensive odor in sufficient amounts preventing full maintenance of beneficial uses because nothing disclosed by the permittee at renewal for these outfalls indicates offensive odor will be present in sufficient amounts to impair beneficial uses.
- (D) Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life.
- The permit writer considered specific toxic pollutants when writing this permit. Numeric effluent limitations are included for those pollutants that could be discharged in toxic amounts. These effluent limitations are protective of human health, animals, and aquatic life.
- (E) There shall be no significant human health hazard from incidental contact with the water.
- It is the permit writer's opinion that this criterion is the same as (D).
- (F) There shall be no acute toxicity to livestock or wildlife watering.
- It is the permit writer's opinion that this criterion is the same as (D).
- (G) Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community.
- For all outfalls, there is no RP for physical changes that would impair the natural biological community because nothing disclosed by the permittee at renewal for these outfalls indicates physical changes that would impair the natural biological community.
 - For all outfalls, there is no RP for hydrologic changes that would impair the natural biological community because nothing disclosed by the permittee at renewal for these outfalls indicates physical changes that would impair the natural biological community.
 - It has previously been established that any chemical changes are covered by the specific numeric effluent limitations established in the permit.
- (H) 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.
- There are no solid waste disposal activities or any operation that has reasonable potential to cause or contribute to the materials listed above being discharged through any outfall.

OUTFALLS #006, #007, #008, AND #009 – STORMWATER OUTFALLS

EFFLUENT LIMITATIONS TABLE:

PARAMETERS	UNIT	DAILY MAXIMUM LIMIT	BENCH- MARK	PREVIOUS PERMIT LIMITS	MINIMUM SAMPLING FREQUENCY	MINIMUM REPORTING FREQUENCY	SAMPLE TYPE
PHYSICAL							
FLOW	MGD	*	-	SAME	ONCE/QUARTER	ONCE/QUARTER	24 HR. ESTIMATE
PRECIPITATION	inches	*	-	NEW	ONCE/QUARTER	ONCE/QUARTER	24 HR. TOT
CONVENTIONAL							
COD	mg/L	*	-	NEW	ONCE/QUARTER	ONCE/QUARTER	GRAB
pH †	SU	6.5 TO 9.0	-	SAME	ONCE/QUARTER	ONCE/QUARTER	GRAB
TSS	mg/L	**	100	*/*	ONCE/QUARTER	ONCE/QUARTER	GRAB
OTHER							
NITRATE PLUS NITRITE	mg/L	**	10	10/10	ONCE/QUARTER	ONCE/QUARTER	GRAB

- * Monitoring requirement only
- ** Monitoring with associated benchmark
- † The facility will report the minimum and maximum pH values; pH is not to be averaged
- NEW Parameter not established in previous operating permit
- TR Total Recoverable

DERIVATION AND DISCUSSION OF LIMITS:

PHYSICAL:

Flow

In accordance with [40 CFR Part 122.44(i)(1)(ii)] the volume of effluent discharged from each outfall is needed to assure compliance with permitted effluent limitations. If the permittee is unable to obtain effluent flow, then it is the responsibility of the permittee to inform the department, which may require the submittal of an operating permit modification. The facility will report the total flow in millions of gallons per day (MGD).

Precipitation and Precipitation Log

Monitoring only requirement; measuring the amount of precipitation [(10 CSR 20-6.200(2)(C)1.E(VI)] during an event is necessary to ensure adequate stormwater management exists at the site. Knowing the amount of potential stormwater runoff can provide the permittee a better understanding of specific control measure that should be employed to ensure protection of water quality. The facility will provide the 24 hour accumulation value of precipitation from the day of sampling the other parameters. It is not necessary to report all days of precipitation during the quarter because of the readily available on-line data.

CONVENTIONAL:

Chemical Oxygen Demand (COD)

Monitoring is included using the permit writer’s best professional judgment. There is no water quality standard for COD; however, increased oxygen demand may impact instream water quality. COD is also a valuable indicator parameter. COD monitoring allows the permittee to identify increases in COD that may indicate materials/chemicals coming into contact with stormwater that cause an increase in oxygen demand. Increases in COD may indicate a need for maintenance or improvement of BMPs.

pH

6.5 to 9.0 SU; continued from previous permit. The Water Quality Standard at 10 CSR 20-7.031(5)(E) states water contaminants shall not cause pH to be outside the range of 6.5 to 9.0 standard pH units.

Settleable Solids (SS)

Removed from permit. The permit writer uses best professional judgment to remove this parameter. Solids monitoring is continued through total suspended solids, which includes the settleable fraction.

Total Suspended Solids (TSS)

Monitoring, with a 100 mg/L daily maximum benchmark. There is no water quality standard for TSS; however, sediment discharges can negatively impact aquatic life habitat. TSS is also a valuable indicator parameter. TSS monitoring allows the permittee to identify increases in TSS that may indicate uncontrolled materials leaving the site. Increased suspended solids in runoff can lead to decreased available oxygen for aquatic life and an increase of surface water temperatures in a receiving stream. Suspended solids can also be carriers of toxins, which can adsorb to the suspended particles; therefore, total suspended solids are a valuable indicator parameter for other pollution. A benchmark value will be implemented for this parameter. The benchmark value will be set at 100 mg/L. This value is achievable through proper operational and maintenance of BMPs and falls within the range of values implemented in other permits having similar industrial activities.

NUTRIENTS:

Nitrate plus Nitrite

Monitoring, with a 10 mg/L daily maximum benchmark. The previous permit required a daily maximum and monthly average limit of 10 mg/L. There were no data submitted in the previous permit cycle; however, it is in the best professional judgment of the permit writer to continue monitoring for this pollutant as it is a pollutant of concern with sewage sludge. Limits are removed because reasonable potential to exceed water quality standards has not been established.

OTHER:

Whole Effluent Toxicity (WET) Test, Acute

Removed from this permit. The discharge is stormwater only. WET testing is rarely reproducible in stormwater, and is thus not required by this permit.

MONITORING WELLS #615, #616, #617, #618, #619, #620, AND #621- GROUNDWATER

EFFLUENT LIMITATIONS TABLE #1:

PARAMETERS	UNIT	DAILY MAX	MONTHLY AVG	PREVIOUS PERMIT LIMITS	MINIMUM SAMPLING FREQUENCY	MINIMUM REPORTING FREQUENCY	SAMPLE TYPE
FIELD MEASUREMENTS							
DEPTH TO WATER	feet	*	-	NEW	ONCE/QUARTER	ONCE/QUARTER	MEAS.
OXIDATION REDUCTION POT.	mV	*	-	NEW	ONCE/QUARTER	ONCE/QUARTER	MEAS.
pH	SU	*	-	SEE TABLE 2	ONCE/QUARTER	ONCE/QUARTER	GRAB
PURGE VOLUME	gal.	*	-	NEW	ONCE/QUARTER	ONCE/QUARTER	MEAS.
TURBIDITY	NTU	*	-	NEW	ONCE/QUARTER	ONCE/QUARTER	GRAB
METALS							
ARSENIC, TR	µg/L	*	-	SEE TABLE 2	ONCE/QUARTER	ONCE/QUARTER	GRAB
BARIUM, TR	µg/L	*	-	SEE TABLE 2	ONCE/QUARTER	ONCE/QUARTER	GRAB
BERYLLIUM, TR	µg/L	4	-	SEE TABLE 2	ONCE/QUARTER	ONCE/QUARTER	GRAB
CADMIUM, TR	µg/L	5	-	SEE TABLE 2	ONCE/QUARTER	ONCE/QUARTER	GRAB
CHROMIUM (III), TR	µg/L	100	-	SEE TABLE 2	ONCE/QUARTER	ONCE/QUARTER	GRAB
COPPER, TR	µg/L	*	-	SEE TABLE 2	ONCE/QUARTER	ONCE/QUARTER	GRAB
LEAD, TR	µg/L	*	-	SEE TABLE 2	ONCE/QUARTER	ONCE/QUARTER	GRAB
NICKEL, TR	µg/L	*	-	SEE TABLE 2	ONCE/QUARTER	ONCE/QUARTER	GRAB
SELENIUM, TR	µg/L	*	-	SEE TABLE 2	ONCE/QUARTER	ONCE/QUARTER	GRAB
SILVER, TR	µg/L	*	-	SEE TABLE 2	ONCE/QUARTER	ONCE/QUARTER	GRAB
ZINC, TR	µg/L	*	-	SEE TABLE 2	ONCE/QUARTER	ONCE/QUARTER	GRAB
NUTRIENTS							
AMMONIA AS N	mg/L	*	-	NEW	ONCE/QUARTER	ONCE/QUARTER	GRAB
NITRATE AS N	mg/L	10	-	SEE TABLE 2	ONCE/QUARTER	ONCE/QUARTER	GRAB
NITROGEN, TOTAL (TN)	mg/L	*	-	NEW	ONCE/QUARTER	ONCE/QUARTER	GRAB
OTHER							
ACETONE	µg/L	*	-	SEE TABLE 2	ONCE/QUARTER	ONCE/QUARTER	GRAB
BIS(2-ETHYLHEXYL)PHTHALATE	µg/L	*	-	SEE TABLE 2	ONCE/QUARTER	ONCE/QUARTER	GRAB
CHLORIDE	mg/L	*	-	SEE TABLE 2	ONCE/QUARTER	ONCE/QUARTER	GRAB
SULFATE	mg/L	*	-	SEE TABLE 2	ONCE/QUARTER	ONCE/QUARTER	GRAB

- * Monitoring requirement only
- ** Monitoring with associated benchmark
- † The facility will report the minimum and maximum pH values; pH is not to be averaged
- NEW Parameter not established in previous operating permit
- TR Total Recoverable

PREVIOUS PERMIT LIMITS; TABLE #2:

PARAMETER	UNIT	MW #615	MW #616	MW #617	MW #618	MW #619	MW #620	MW #621	GW WQS
pH	SU	6.5 - 9.0	6.5 - 9.0	6.5 - 9.0	6.5 - 9.0	6.5 - 9.0	6.5 - 9.0	6.5 - 9.0	n/a
Arsenic	µg/L	n/a	n/a	100	100	n/a	n/a	n/a	50
Barium	µg/L	1000	1000	1000	1000	1000	1000	1000	2000
Beryllium	µg/L	4	4	4	4	4	4	4	4
Cadmium	µg/L	5	5	5	5	5	5	5	5
Chloride	mg/L	n/a	n/a	n/a	n/a	250	250	250	250
Chromium	µg/L	n/a	100	100	100	n/a	100	100	100
Copper	µg/L	n/a	n/a	n/a	n/a	n/a	1300	1300	1300
Nickel	µg/L	100	100	100	100	100	100	100	100
Nitrate	mg/L	n/a	n/a	n/a	10	n/a	n/a	n/a	10

PARAMETER	UNIT	MW #615	MW #616	MW #617	MW #618	MW #619	MW #620	MW #621	GW WQS
Selenium	µg/L	n/a	n/a	n/a	50	n/a	n/a	n/a	50
Silver	µg/L	n/a	50	n/a	n/a	n/a	50	50	50
Sulfate	mg/L	250	n/a	250	250	250	250	n/a	n/a
TCE	µg/L	5	5	5	5	5	5	5	5
Zinc	µg/L	n/a	n/a	n/a	n/a	5000	5000	n/a	5000
Priority Pollutants	µg/L	*	*	*	*	*	*	*	n/a

* monitoring only

n/a no previous requirement

TR all metals are total recoverable

In all cases, the daily maximum and monthly average were the same therefore were not repeated for brevity.

FIELD MEASUREMENTS:

Depth to Water

The facility shall monitor the depth to water to the nearest 0.01 foot. Measurements shall take place prior to any well sampling activity. Data is required per the permit writer's best professional judgment to assure the samples collected are valid and represent the groundwater being sampled.

Oxidation Reduction Potential

Facility will report the final value obtained just prior to collecting samples. Data is required per the permit writer's best professional judgment to assure the samples collected are valid and represent the groundwater being sampled.

Purge Volume

The department is asking the facility report the volume purged from the well for stabilization purposes prior to sampling. Data is required per the permit writer's best professional judgment to assure the samples collected are valid and represent the groundwater being sampled.

pH

Previous permit instituted limitations of 6.5-9.0; limits not continued; monitoring continued to determine the overall pH of the site and to assure the well is purged correctly. Facility will report the final value obtained just prior to collecting samples. Data is required per the permit writer's best professional judgment to assure the samples collected are valid and represent the groundwater being sampled.

Turbidity

Reporting in NTU required to determine proper well redevelopment. Facility will report the final value obtained just prior to collecting samples. Data is required per the permit writer's best professional judgment to assure the samples collected are valid and represent the groundwater being sampled.

METALS:

General groundwater standards, designated as GRW in 10 CSR 20-7.031 Table A were used to determine effluent limitations.

Arsenic, Total Recoverable

The previous permit required a daily maximum and monthly average limit of 100 µg/L at wells #617 and #618. These limits are removed as reasonable potential has not been established and the groundwater quality standard is 100 µg/L. Monitoring is new at all other monitoring wells. This pollutant is added as it is a pollutant of concern at the site; in the interest in reducing confusion, this parameter shall be sampled at all monitoring wells. The aquifer being sampled likely contains the same pollutants of concern at different times due to subsurface water movement; therefore it makes sense to sample all wells for identical parameters.

Barium, Total Recoverable

The previous permit required a daily maximum and monthly average limit of 1000 µg/L at all wells. However, these limits are removed as reasonable potential has not been established and the water quality standard is 2,000 µg/L. Values ranged from 118 to 1,390 µg/L for this parameter. As the previous limit was established in error, the permit writer is allowed to backslide and implement monitoring only for all wells.

Beryllium, Total Recoverable

The previous permit established a daily maximum and monthly average limit of 4 µg/L for all wells. For every well, the facility reported 4 µg/L for each report. Because the permittee is apparently not using the most sensitive analytical method, monitoring with the groundwater limit is continued as the permit writer cannot confirm the actual values of beryllium in the groundwater is adequately below the groundwater standard to obtain a no-reasonable potential determination. The facility will need to use a

method with a detection limit below 4 µg/L; methods found in the most current version, and approved by 40 CFR 136 show the detection limit is 0.3 µg/L for this parameter. The permit writer has determined the limitation for this parameter shall be retained as the limit was established in accordance with 10 CSR 20-7.031 Table A.

Cadmium, Total Recoverable

The previous permit established a daily maximum and monthly average limit of 5 µg/L at all wells. The facility reported between 0.8 to 5.9 µg/L for all wells. The well with the highest cadmium value appeared in well 21 in 2015. The permit writer has determined the limitation for this parameter shall be retained as the limit was established at all wells in accordance with 10 CSR 20-7.031 Table A.

Chromium (III), Total Recoverable

The previous permit did not require the trivalent form of chromium, however, that is how the Missouri water quality standards are written. The limit imposed in the permit was for 100 µg/L; the trivalent chromium WQS for GW. The facility reported between 8 and 102 µg/L for this parameter. The well with the highest chromium value was well #621 in 2015. No other values exceeded the WQS. Limits remain; however, the parameter is changed to trivalent form of chromium (the change will have little bearing on the presence of chromium in the groundwater at the site as trivalent chromium is typically the most prevalent form).

Copper, Total Recoverable

The previous permit required sampling for copper at wells #620 and #621 only. However, as this is a domestic wastewater sludge landfill, copper is a pollutant of concern at all wells. The groundwater quality standard is 1,300 µg/L for this parameter; the limits for wells #620 and #621 were the same. Values reported were from 6.9 to 138 µg/L for this parameter. Because the values obtained for copper were well below the GW WQS, a limit is currently not required. The facility must sample for copper at all wells henceforth.

Lead, Total Recoverable

The previous permit did not require sampling of lead. However, the permit writer believed lead to be a contaminant of concern at this site based on the nature of the sludge in this landfill. Monitoring required at all wells.

Nickel, Total Recoverable

The previous permit implemented a daily maximum and monthly average limit of 100 µg/L for this parameter at all wells. The permittee reported between 4.8 to 59.8 µg/L of this parameter at all wells. These limits are removed as reasonable potential has not been established and the groundwater quality standard is 100 µg/L. Monitoring for all wells continued.

Selenium, Total Recoverable

The previous permit implemented a limit of 50 µg/L at well #618 only. No other wells have sampling data for this parameter. Values at well #618 range from 4 to 36 µg/L. These limits are removed as reasonable potential has not been established and the groundwater quality standard is 50 µg/L. Monitoring for all wells is required henceforth.

Silver, Total Recoverable

The previous permit implemented limits of 50 µg/L for wells #616 and #621 and 250 µg/L at well #620. The GW WQS is 50. The facility reported between 4 and 10 for this parameter at wells #616, #620, and #621; the other wells did not supply data as monitoring was not required. These limits are removed as reasonable potential has not been established and the groundwater quality standard is 50 µg/L. Monitoring for all wells is required henceforth.

Zinc, Total Recoverable

The previous permit implemented limits of 5,000 µg/L (the GW WQS) at wells #619 and #620. The facility reported between 13 and 180 µg/L for this parameter. These limits are removed as reasonable potential has not been established. Monitoring at all wells is required henceforth.

NUTRIENTS:

Ammonia as N

Sampling data show ammonia is present in the groundwater at the site. Monitoring at all wells required.

Nitrate, as N

The previous permit required a 10 mg/L limit (the GW WQS) for this parameter at all outfalls. The facility reported between 1 and 2.6 mg/L for this parameter. Limits and monitoring continued.

Nitrogen, Total (TN)

The permittee has shown through sampling nitrogen is present in the groundwater at this site. Monitoring at all wells is required.

Phosphorus, Total (TP)

The permittee has shown through sampling TP is not present at detectable levels. Monitoring not required.

OTHER:

126 Priority Pollutants

The previous permit required monitoring for the 126 priority pollutants found in 40 CFR 401.15. The data was reviewed and determined any pollutants present in maxima require further monitoring as follows:

Acetone

Quarterly monitoring required. Data show the presence of this parameter.

bis(2-ethylhexyl)phthalate

Quarterly monitoring required. Data show the presence of this parameter.

Chloride

Previous permit limits were established for wells #619, #620, and #621 at 250 mg/L. The permittee reported between 27.4 and 467 mg/L. However, the standard established is the drinking water system standard, not the groundwater standard. Limits removed; sampling is required for all wells.

Sulfate

Previous permit limits were established for wells #615, #617, #618, #619, and #620 at 250 mg/L, however, this limit is for drinking water systems. The permittee reported between 10.2 and 202 mg/L for this parameter. Limits removed; sampling required for all wells.

Trichloroethylene

The previous permit required monitoring of TCE. The permittee reported all non-detections; as this is not an industrial landfill, this parameter is not expected to be present. Monitoring not continued.

Part V. SAMPLING AND REPORTING REQUIREMENTS:

Refer to each outfall's derivation and discussion of limits section to review individual sampling and reporting frequencies and sampling type. Additionally, see Standard Conditions Part I attached at the end of this permit and fully incorporated within.

ELECTRONIC DISCHARGE MONITORING REPORT (EDMR) SUBMISSION SYSTEM:

The U.S. Environmental Protection Agency (EPA) promulgated a final rule on October 22, 2015, to modernize Clean Water Act reporting for municipalities, industries, and other facilities by converting to an electronic data reporting system. This final rule requires regulated entities and state and federal regulators to use information technology to electronically report data required by the National Pollutant Discharge Elimination System (NPDES) permit program instead of filing paper reports. To comply with the federal rule, the Department is requiring all permittees to begin submitting discharge monitoring data and reports online.

Per 40 CFR 127.15 and 127.24, permitted facilities may request a temporary waiver for up to 5 years or a permanent waiver from electronic reporting from the Department. To obtain an electronic reporting waiver, a permittee must first submit an eDMR Waiver Request Form: <http://dnr.mo.gov/forms/780-2692-f.pdf>. A request must be made for each facility. If more than one facility is owned or operated by a single entity, then the entity must submit a separate request for each facility based on its specific circumstances. An approved waiver is non-transferable.

The Department must review and notify the facility within 120 calendar days of receipt if the waiver request has been approved or rejected [40 CFR 124.27(a)]. During the Department review period as well as after a waiver is granted, the facility must continue submitting a hard-copy of any reports required by their permit. The Department will enter data submitted in hard-copy from those facilities allowed to do so and electronically submit the data to the EPA on behalf of the facility.

✓ The permittee/facility is currently using the eDMR data reporting system.

SAMPLING FREQUENCY JUSTIFICATION:

Sampling and reporting frequency was generally retained from previous permit for stormwater. Sampling frequency for stormwater-only outfalls is typically quarterly even though BMP inspection occurs monthly. The facility may sample more frequently if additional data is required to determine if best management operations and technology are performing as expected. Groundwater sampling was increased to fall in line with other permits monitoring groundwater and to determine the variability of the constituents at the site and to determine any trends, intra- or inter-well variability, or natural attenuation.

SAMPLING TYPE JUSTIFICATION:

Sampling type was continued from the previous permit. The sampling types are representative of the discharges, and are protective of water quality. Discharges with altering effluent should have composite sampling; discharges with uniform effluent can have grab samples. Grab samples are usually appropriate for stormwater. Parameters which must have grab sampling are: pH, ammonia, *E. coli*, total residual chlorine, free available chlorine, hexavalent chromium, dissolved oxygen, total phosphorus, and volatile organic samples. Grab sampling is the only type of sampling available to groundwater at this site.

SUFFICIENTLY SENSITIVE ANALYTICAL METHODS:

Please review Standard Conditions Part 1, section A, number 4. The analytical and sampling methods used shall conform to the reference methods listed in 10 CSR 20-7.015 and/or 40 CFR 136 unless alternates are approved by the department. The facility shall use sufficiently sensitive analytical methods for detecting, identifying, and measuring the concentrations of pollutants. The facility shall ensure the selected methods are able to quantify the presence of pollutants in a given discharge at concentrations that are low enough to determine compliance with Water Quality Standards in 10 CSR 20-7.031 or effluent limitations unless provisions in the permit allow for other alternatives. A method is "sufficiently sensitive" when; 1) the method quantifies the pollutant below the level of the applicable water quality criterion or; 2) the method minimum level is above the applicable water quality criterion, but the amount of pollutant in a facility's discharge is high enough that the method detects and quantifies the level of pollutant in the discharge, or 3) the method has the lowest minimum level of the analytical methods approved under 10 CSR 20-7.015 and or 40 CFR 136. These methods are also required for parameters listed as monitoring only, as the data collected may be used to determine if numeric limitations need to be established. A permittee is responsible for working with their contractors to ensure the analysis performed is sufficiently sensitive. 40 CFR 136 lists the approved methods accepted by the department. Table A at 10 CFR 20-7.031 shows water quality standards.

Part VI. ADMINISTRATIVE REQUIREMENTS

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

PERMIT SYNCHRONIZATION:

The Department of Natural Resources is currently undergoing a synchronization process for operating permits. Permits are normally issued on a five-year term, but to achieve synchronization many permits will need to be issued for less than the full five years allowed by regulation. The intent is that all permits within a watershed will move through the Watershed Based Management (WBM) cycle together will all expire in the same fiscal year. <http://dnr.mo.gov/env/wpp/cpp/docs/watershed-based-management.pdf>. This will allow further streamlining by placing multiple permits within a smaller geographic area on public notice simultaneously, thereby reducing repeated administrative efforts. This will also allow the department to explore a watershed based permitting effort at some point in the future. Renewal applications must continue to be submitted within 180 days of expiration, however, in instances where effluent data from the previous renewal is less than three years old, that data may be re-submitted to meet the requirements of the renewal application. If the permit provides a schedule of compliance for meeting new water quality based effluent limits beyond the expiration date of the permit, the time remaining in the schedule of compliance will be allotted in the renewed permit.

✓ *This permit would become synchronized by expiring the end of the 2nd quarter, 2019 however that would be a permit term of less than one year therefore this permit will be issued for a period of five years.*

PUBLIC NOTICE:

The Department shall give public notice that a draft permit has been prepared and its issuance is pending.

<http://dnr.mo.gov/env/wpp/permits/pn/index.html> Additionally, public notice will be issued if a public hearing is to be held because of a significant degree of interest in and water quality concerns related to a draft permit. No public notice is required when a request for a permit modification or termination is denied; however, the requester and permittee must be notified of the denial in writing.

The Department must issue public notice of a pending operating permit or of a new or reissued statewide general permit. The public comment period is the length of time not less than 30 days following the date of the public notice which interested persons may submit written comments about the proposed permit.

For persons wanting to submit comments regarding this proposed operating permit, then please refer to the Public Notice page located at the front of this draft operating permit. The Public Notice page gives direction on how and where to submit appropriate comments.

- The Public Notice period for this operating permit was from 5/25/2018 to 6/25/2018. In an email dated 5/24/2018, the facility updated the permit writer to show that outfalls #002 and #003 were not part of the landfill area. These two outfalls were removed after the public notice process was completed. This action does not require an additional public notice comment period per 40 CFR 122.63(e)(2). A typographical error of omission was fixed, as MW 620 should have been included on Table A-2.

DATE OF FACT SHEET: JULY 11, 2018

COMPLETED BY:

PAM HACKLER, ENVIRONMENTAL SCIENTIST
MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM
OPERATING PERMITS SECTION - INDUSTRIAL UNIT
573-526-3386
pam.hackler@dnr.mo.gov

APPENDIX A: MGS REPORT #MIS18052



Missouri Department of dnr.mo.gov

NATURAL RESOURCES

Eric R. Greitens, Governor

Carol S. Comer, Director

MEMORANDUM

DATE: April 10, 2018
TO: Pam Hackler, Environmental Scientist
FROM: John Corley, Geologist, Environmental Geology
Section, Geological Survey Program, MGS

MIS18052
Clay County



SUBJECT: North Kansas City Sewage Treatment Landfill
North Kansas City Sewage Treatment Landfill
39 8 22.22 Latitude, -94 32 49.47 Longitude,
Clay County, Missouri

April 10, 2018

The Missouri Geological Survey (MGS) has reviewed documents related to the permit renewal of Missouri State Operating Permit (MSOP) MO-0107263 for the North Kansas City Sewage Treatment Sludge Landfill (landfill), located in Clay County, Missouri. The documents include quarterly groundwater monitoring data from the first quarter of 2015 through the second quarter of 2017, a closure plan dated December 1994, and a draft permit renewal for the landfill. MGS offers the following comments:

General comment: Review of available documentation suggests that the sampling protocols/methods are inconsistent, and in some cases incomplete, which may impact the integrity of the samples. MGS recommends that all wells be assessed and redeveloped prior to future sampling events.

Comment 1: Accumulated sediment thickness from the first quarter of 2015 to the second quarter of 2017 ranges from zero to nine feet. The reported accumulated sediment thickness in well 0621 is as followed: 3.50 feet in the first quarter of 2015; 3.50 feet in the second quarter of 2015; 2.50 feet in the fourth quarter of 2015; 0.5 feet in the first quarter 2016; 8.50 feet in the second quarter 2016; 9.00 feet in the third quarter of 2016; zero feet in the first quarter of 2017; and 8.00 feet in the second quarter of 2017. The reasons for this variability are unknown, but some possible explanations include errors in measuring the accumulated sediment thickness, or that this well has been severely compromised to allow sediment thickness to vary considerably in relatively short amounts of time. It is also reported in the first quarters of 2016 and 2017 that well 0621 was dry and samples could not be collected. Possible scenarios for a dry well include the well was not screened at an appropriate depth or that it has been severely silted in. Monitoring wells should be screened so that the water table remains within the screened interval during seasonal variations allowing year-round collection of groundwater data. In order to collect accurate groundwater data, this well may need maintenance or needs to be replaced.

Other wells are also reported to have sediment accumulation throughout time, which may warrant an evaluation of the wells' integrity.

Comment 2: The first quarter 2017 report stated that well 0621 was dry and had zero accumulated sediment thickness. Past and future reports listed an accumulated thickness and 0.50 feet of measured total depth of water. It is stated under 'Collector's Comments' that data collection was performed by North Kansas City Personnel, but the individual who collected the data is not listed. For future submitted quarterly groundwater monitoring reports, all relevant data should be recorded accurately including the individual(s) who collected the data.

Comment 3: All reviewed quarterly reports state that the elevation for the top of casing of well 0621 is 933.00 feet above mean sea level. The monitoring well certification record for monitoring well 0621 (Reference Number 00146299) states that the elevation of the top of riser pipe, which is this well's measuring point for static water level, is 741.86 feet above mean sea level. This discrepancy requires explanation and all further submissions should reflect the correct elevation.

Comment 4: Several quarterly reports for monitoring well 0621 show collected samples that are gray, dark tan, or black in color, murky, and have oily or musty odors. Other wells exhibit discoloration, but are not stated to have murkiness or an odor.

Currently, insufficient data exists at the landfill to adequately characterize the hydrogeological properties at the site. In addition, the monitoring wells at the site show impact to groundwater from several constituents that are above groundwater water quality standards, including, but not limited to, iron, manganese, Bis(2-Ethylhexyl) phthalate, lead, and nitrate/nitrite.

The MGS recommends further groundwater monitoring until the permittee can demonstrate that the closed sludge landfill is not impacting waters of the state, which may include the placement of additional monitoring wells to adequately monitor this site. If necessary, a hydrogeologic site characterization may be required to establish groundwater gradients and to be able to determine the correct number, proper placement and design of the groundwater monitoring wells.

If you are in need of further assistance from our office or have questions regarding this evaluation please feel free to contact me at (573) 368-2161.



STANDARD CONDITIONS FOR NPDES PERMITS
ISSUED BY
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MISSOURI CLEAN WATER COMMISSION
REVISED
AUGUST 1, 2014

These Standard Conditions incorporate permit conditions as required by 40 CFR 122.41 or other applicable state statutes or regulations. These minimum conditions apply unless superseded by requirements specified in the permit.

Part I – General Conditions

Section A – Sampling, Monitoring, and Recording

1. **Sampling Requirements.**
 - a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
 - b. All samples shall be taken at the outfall(s) or Missouri Department of Natural Resources (Department) approved sampling location(s), and unless specified, before the effluent joins or is diluted by any other body of water or substance.
2. **Monitoring Requirements.**
 - a. Records of monitoring information shall include:
 - i. The date, exact place, and time of sampling or measurements;
 - ii. The individual(s) who performed the sampling or measurements;
 - iii. The date(s) analyses were performed;
 - iv. The individual(s) who performed the analyses;
 - v. The analytical techniques or methods used; and
 - vi. The results of such analyses.
 - b. If the permittee monitors any pollutant more frequently than required by the permit at the location specified in the permit using test procedures approved under 40 CFR Part 136, or another method required for an industry-specific waste stream under 40 CFR subchapters N or O, the results of such monitoring shall be included in the calculation and reported to the Department with the discharge monitoring report data (DMR) submitted to the Department pursuant to Section B, paragraph 7.
3. **Sample and Monitoring Calculations.** Calculations for all sample and monitoring results which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in the permit.
4. **Test Procedures.** The analytical and sampling methods used shall conform to the reference methods listed in 10 CSR 20-7.015 unless alternates are approved by the Department. The facility shall use sufficiently sensitive analytical methods for detecting, identifying, and measuring the concentrations of pollutants. The facility shall ensure that the selected methods are able to quantify the presence of pollutants in a given discharge at concentrations that are low enough to determine compliance with Water Quality Standards in 10 CSR 20-7.031 or effluent limitations unless provisions in the permit allow for other alternatives. A method is “sufficiently sensitive” when; 1) the method minimum level is at or below the level of the applicable water quality criterion for the pollutant or, 2) the method minimum level is above the applicable water quality criterion, but the amount of pollutant in a facility’s discharge is high enough that the method detects and quantifies the level of pollutant in the discharge, or 3) the method has the lowest minimum level of the analytical methods approved under 10 CSR 20-7.015. These methods are also required for parameters that are listed as monitoring only, as the data collected may be used to determine if limitations need to be established. A permittee is responsible for working with their contractors to ensure that the analysis performed is sufficiently sensitive.
5. **Record Retention.** Except for records of monitoring information required by the permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five (5) years (or longer as required by 40 CFR part 503), the permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by the permit, and records of all data used to complete the application for the permit, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the Department at any time.

6. **Illegal Activities.**
 - a. The Federal Clean Water Act provides that any person who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained under the permit shall, upon conviction, be punished by a fine of not more than \$10,000, or by imprisonment for not more than two (2) years, or both. If a conviction of a person is for a violation committed after a first conviction of such person under this paragraph, punishment is a fine of not more than \$20,000 per day of violation, or by imprisonment of not more than four (4) years, or both.
 - b. The Missouri Clean Water Law provides that any person or who falsifies, tampers with, or knowingly renders inaccurate any monitoring device or method required to be maintained pursuant to sections 644.006 to 644.141 shall, upon conviction, be punished by a fine of not more than \$10,000, or by imprisonment for not more than six (6) months, or by both. Second and successive convictions for violation under this paragraph by any person shall be punished by a fine of not more than \$50,000 per day of violation, or by imprisonment for not more than two (2) years, or both.

Section B – Reporting Requirements

1. **Planned Changes.**
 - a. The permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility when:
 - i. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b); or
 - ii. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under 40 CFR 122.42;
 - iii. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan;
 - iv. Any facility expansions, production increases, or process modifications which will result in a new or substantially different discharge or sludge characteristics must be reported to the Department 60 days before the facility or process modification begins. Notification may be accomplished by application for a new permit. If the discharge does not violate effluent limitations specified in the permit, the facility is to submit a notice to the Department of the changed discharge at least 30 days before such changes. The Department may require a construction permit and/or permit modification as a result of the proposed changes at the facility.
2. **Non-compliance Reporting.**
 - a. The permittee shall report any noncompliance which may endanger health or the environment. Relevant information shall be provided orally or via the current electronic method approved by the Department, within 24 hours from the time the permittee becomes aware of the circumstances, and shall be reported to the appropriate Regional Office during normal business hours or the Environmental Emergency Response hotline at 573-634-2436 outside of normal business hours. A written submission shall also be provided within five (5) business days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.



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REVISED
AUGUST 1, 2014

- b. The following shall be included as information which must be reported within 24 hours under this paragraph.
 - i. Any unanticipated bypass which exceeds any effluent limitation in the permit.
 - ii. Any upset which exceeds any effluent limitation in the permit.
 - iii. Violation of a maximum daily discharge limitation for any of the pollutants listed by the Department in the permit required to be reported within 24 hours.
 - c. The Department may waive the written report on a case-by-case basis for reports under paragraph 2. b. of this section if the oral report has been received within 24 hours.
3. **Anticipated Noncompliance.** The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements. The notice shall be submitted to the Department 60 days prior to such changes or activity.
 4. **Compliance Schedules.** Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of the permit shall be submitted no later than 14 days following each schedule date. The report shall provide an explanation for the instance of noncompliance and a proposed schedule or anticipated date, for achieving compliance with the compliance schedule requirement.
 5. **Other Noncompliance.** The permittee shall report all instances of noncompliance not reported under paragraphs 2, 3, and 6 of this section, at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph 2. a. of this section.
 6. **Other Information.** Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Department, it shall promptly submit such facts or information.
 7. **Discharge Monitoring Reports.**
 - a. Monitoring results shall be reported at the intervals specified in the permit.
 - b. Monitoring results must be reported to the Department via the current method approved by the Department, unless the permittee has been granted a waiver from using the method. If the permittee has been granted a waiver, the permittee must use forms provided by the Department.
 - c. Monitoring results shall be reported to the Department no later than the 28th day of the month following the end of the reporting period.
- b. Notice.
 - i. Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least 10 days before the date of the bypass.
 - ii. Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in Section B – Reporting Requirements, paragraph 5 (24-hour notice).
 - c. Prohibition of bypass.
 - i. Bypass is prohibited, and the Department may take enforcement action against a permittee for bypass, unless:
 1. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
 2. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
 3. The permittee submitted notices as required under paragraph 2. b. of this section.
 - ii. The Department may approve an anticipated bypass, after considering its adverse effects, if the Department determines that it will meet the three (3) conditions listed above in paragraph 2. c. i. of this section.
3. **Upset Requirements.**
 - a. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of paragraph 3. b. of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.
 - b. Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
 - i. An upset occurred and that the permittee can identify the cause(s) of the upset;
 - ii. The permitted facility was at the time being properly operated; and
 - iii. The permittee submitted notice of the upset as required in Section B – Reporting Requirements, paragraph 2. b. ii. (24-hour notice).
 - iv. The permittee complied with any remedial measures required under Section D – Administrative Requirements, paragraph 4.
 - c. Burden of proof. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

Section C – Bypass/Upset Requirements

1. **Definitions.**
 - a. *Bypass*: the intentional diversion of waste streams from any portion of a treatment facility, except in the case of blending.
 - b. *Severe Property Damage*: substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
 - c. *Upset*: an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.
2. **Bypass Requirements.**
 - a. Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs 2. b. and 2. c. of this section.

Section D – Administrative Requirements

1. **Duty to Comply.** The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Missouri Clean Water Law and Federal Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.
 - a. The permittee shall comply with effluent standards or prohibitions established under section 307(a) of the Federal Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions or standards for sewage sludge use or disposal, even if the permit has not yet been modified to incorporate the requirement.
 - b. The Federal Clean Water Act provides that any person who violates section 301, 302, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any such sections in a permit issued under section 402, or any requirement imposed in a pretreatment program approved under sections 402(a)(3) or 402(b)(8) of the Act, is subject to a civil penalty not to exceed \$25,000 per day for each violation. The Federal Clean Water Act provides that any person who negligently violates sections 301, 302, 306, 307, 308, 318, or 405 of the Act, or any condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, or any requirement



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- imposed in a pretreatment program approved under section 402(a)(3) or 402(b)(8) of the Act, is subject to criminal penalties of \$2,500 to \$25,000 per day of violation, or imprisonment of not more than one (1) year, or both. In the case of a second or subsequent conviction for a negligent violation, a person shall be subject to criminal penalties of not more than \$50,000 per day of violation, or by imprisonment of not more than two (2) years, or both. Any person who knowingly violates such sections, or such conditions or limitations is subject to criminal penalties of \$5,000 to \$50,000 per day of violation, or imprisonment for not more than three (3) years, or both. In the case of a second or subsequent conviction for a knowing violation, a person shall be subject to criminal penalties of not more than \$100,000 per day of violation, or imprisonment of not more than six (6) years, or both. Any person who knowingly violates section 301, 302, 303, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than \$250,000 or imprisonment of not more than 15 years, or both. In the case of a second or subsequent conviction for a knowing endangerment violation, a person shall be subject to a fine of not more than \$500,000 or by imprisonment of not more than 30 years, or both. An organization, as defined in section 309(c)(3)(B)(iii) of the CWA, shall, upon conviction of violating the imminent danger provision, be subject to a fine of not more than \$1,000,000 and can be fined up to \$2,000,000 for second or subsequent convictions.
- c. Any person may be assessed an administrative penalty by the EPA Director for violating section 301, 302, 306, 307, 308, 318 or 405 of this Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of this Act. Administrative penalties for Class I violations are not to exceed \$10,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed \$25,000. Penalties for Class II violations are not to exceed \$10,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed \$125,000.
- d. It is unlawful for any person to cause or permit any discharge of water contaminants from any water contaminant or point source located in Missouri in violation of sections 644.006 to 644.141 of the Missouri Clean Water Law, or any standard, rule or regulation promulgated by the commission. In the event the commission or the director determines that any provision of sections 644.006 to 644.141 of the Missouri Clean Water Law or standard, rules, limitations or regulations promulgated pursuant thereto, or permits issued by, or any final abatement order, other order, or determination made by the commission or the director, or any filing requirement pursuant to sections 644.006 to 644.141 of the Missouri Clean Water Law or any other provision which this state is required to enforce pursuant to any federal water pollution control act, is being, was, or is in imminent danger of being violated, the commission or director may cause to have instituted a civil action in any court of competent jurisdiction for the injunctive relief to prevent any such violation or further violation or for the assessment of a penalty not to exceed \$10,000 per day for each day, or part thereof, the violation occurred and continues to occur, or both, as the court deems proper. Any person who willfully or negligently commits any violation in this paragraph shall, upon conviction, be punished by a fine of not less than \$2,500 nor more than \$25,000 per day of violation, or by imprisonment for not more than one year, or both. Second and successive convictions for violation of the same provision of this paragraph by any person shall be punished by a fine of not more than \$50,000 per day of violation, or by imprisonment for not more than two (2) years, or both.
2. **Duty to Reapply.**
- a. If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit.
- b. A permittee with a currently effective site-specific permit shall submit an application for renewal at least 180 days before the expiration date of the existing permit, unless permission for a later date has been granted by the Department. (The Department shall not grant permission for applications to be submitted later than the expiration date of the existing permit.)
- c. A permittees with currently effective general permit shall submit an application for renewal at least 30 days before the existing permit expires, unless the permittee has been notified by the Department that an earlier application must be made. The Department may grant permission for a later submission date. (The Department shall not grant permission for applications to be submitted later than the expiration date of the existing permit.)
3. **Need to Halt or Reduce Activity Not a Defense.** It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
4. **Duty to Mitigate.** The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.
5. **Proper Operation and Maintenance.** The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.
6. **Permit Actions.**
- a. Subject to compliance with statutory requirements of the Law and Regulations and applicable Court Order, this permit may be modified, suspended, or revoked in whole or in part during its term for cause including, but not limited to, the following:
- i. Violations of any terms or conditions of this permit or the law;
- ii. Having obtained this permit by misrepresentation or failure to disclose fully any relevant facts;
- iii. A change in any circumstances or conditions that requires either a temporary or permanent reduction or elimination of the authorized discharge; or
- iv. Any reason set forth in the Law or Regulations.
- b. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.
7. **Permit Transfer.**
- a. Subject to 10 CSR 20-6.010, an operating permit may be transferred upon submission to the Department of an application to transfer signed by the existing owner and the new owner, unless prohibited by the terms of the permit. Until such time the permit is officially transferred, the original permittee remains responsible for complying with the terms and conditions of the existing permit.
- b. The Department may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the Missouri Clean Water Law or the Federal Clean Water Act.
- c. The Department, within 30 days of receipt of the application, shall notify the new permittee of its intent to revoke or reissue or transfer the permit.
8. **Toxic Pollutants.** The permittee shall comply with effluent standards or prohibitions established under section 307(a) of the Federal Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under section 405(d) of the Federal Clean Water Act within the time provided in the regulations that establish these standards or prohibitions or standards for sewage sludge use or disposal, even if the permit has not yet been modified to incorporate the requirement.
9. **Property Rights.** This permit does not convey any property rights of any sort, or any exclusive privilege.



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10. **Duty to Provide Information.** The permittee shall furnish to the Department, within a reasonable time, any information which the Department may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The permittee shall also furnish to the Department upon request, copies of records required to be kept by this permit.
11. **Inspection and Entry.** The permittee shall allow the Department, or an authorized representative (including an authorized contractor acting as a representative of the Department), upon presentation of credentials and other documents as may be required by law, to:
 - a. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of the permit;
 - b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
 - c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
 - d. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Federal Clean Water Act or Missouri Clean Water Law, any substances or parameters at any location.
12. **Closure of Treatment Facilities.**
 - a. Persons who cease operation or plan to cease operation of waste, wastewater, and sludge handling and treatment facilities shall close the facilities in accordance with a closure plan approved by the Department.
 - b. Operating Permits under 10 CSR 20-6.010 or under 10 CSR 20-6.015 are required until all waste, wastewater, and sludges have been disposed of in accordance with the closure plan approved by the Department and any disturbed areas have been properly stabilized. Disturbed areas will be considered stabilized when perennial vegetation, pavement, or structures using permanent materials cover all areas that have been disturbed. Vegetative cover, if used, shall be at least 70% plant density over 100% of the disturbed area.
13. **Signatory Requirement.**
 - a. All permit applications, reports required by the permit, or information requested by the Department shall be signed and certified. (See 40 CFR 122.22 and 10 CSR 20-6.010)
 - b. The Federal Clean Water Act provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than \$10,000 per violation, or by imprisonment for not more than six (6) months per violation, or by both.
 - c. The Missouri Clean Water Law provides that any person who knowingly makes any false statement, representation or certification in any application, record, report, plan, or other document filed or required to be maintained pursuant to sections 644.006 to 644.141 shall, upon conviction, be punished by a fine of not more than ten thousand dollars, or by imprisonment for not more than six months, or by both.
14. **Severability.** The provisions of the permit are severable, and if any provision of the permit, or the application of any provision of the permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of the permit, shall not be affected thereby.



MISSOURI DEPARTMENT OF NATURAL RESOURCES
 WATER PROTECTION PROGRAM
**FORM A - APPLICATION FOR NONDOMESTIC PERMIT UNDER MISSOURI
 CLEAN WATER LAW**

FOR AGENCY USE ONLY	
CHECK NUMBER	
DATE RECEIVED 8-7-16	FEE SUBMITTED 2588

Note ▶ PLEASE READ THE ACCOMPANYING INSTRUCTIONS BEFORE COMPLETING THIS FORM.

1. This application is for:

An operating permit for a new or unpermitted facility:
 Please indicate the original Construction Permit # _____

An operating permit renewal:
 Please indicate the permit # MO- 0107263 Expiration Date 8/21/2013

An operating permit modification:
 Please indicate the permit # MO- _____ Modification Reason: _____

RECEIVED
'AUG 01 2016
 Water Protection Program

1.1 Is the appropriate fee included with the application? (See instructions for appropriate fee) YES NO

2. FACILITY

NAME NORTH KANSAS CITY SEWAGE TREATMENT SLUDGE LANDFILL (CLOSED SINCE 1987)		TELEPHONE NUMBER WITH AREA CODE (816) 274-6021	
		FAX (816) 471-8107	
ADDRESS (PHYSICAL) 2020 BEDFORD	CITY NORTH KANSAS CITY	STATE MO.	ZIP CODE 64116

3. OWNER

NAME CITY OF NORTH KANSAS CITY, MO.		TELEPHONE NUMBER WITH AREA CODE (816) 274-6004	
		FAX (816) 421-0966	
ADDRESS (MAILING) 2010 HOWELL	CITY NORTH KANSAS CITY	STATE MO.	ZIP CODE 64116

3.1 Request review of draft permit prior to public notice? YES NO

4. CONTINUING AUTHORITY

NAME CITY OF NORTH KANSAS CITY, MO.		TELEPHONE NUMBER WITH AREA CODE (816) 274-6004	
		FAX (816) 421-0966	
ADDRESS (MAILING) 2010 HOWELL	CITY NORTH KANSAS CITY	STATE MO.	ZIP CODE 64116

5. OPERATOR

NAME CITY OF NORTH KANSAS CITY, MO.		TELEPHONE NUMBER WITH AREA CODE (816) 274-6004	
		FAX (816) 421-0966	
ADDRESS (MAILING) 2010 HOWELL	CITY NORTH KANSAS CITY	STATE MO.	ZIP CODE 64116

6. FACILITY CONTACT

NAME DAVID R. WEANT		TITLE WPC LAB SUPERVISOR		TELEPHONE NUMBER WITH AREA CODE (816) 274-6021	
		E-MAIL ADDRESS drweant@nkc.org		FAX (816) 471-8107	

7. ADDITIONAL FACILITY INFORMATION

7.1 Legal Description of Outfalls. (Attach additional sheets if necessary.)

001 _____ ¼ _____ ¼ Sec _____ T _____ R _____ _____ County
 UTM Coordinates Easting (X): _____ Northing (Y): _____
For Universal Transverse Mercator (UTM), Zone 15 North referenced to North American Datum 1983 (NAD83)

002 _____ ¼ _____ ¼ Sec _____ T _____ R _____ _____ County
 UTM Coordinates Easting (X): _____ Northing (Y): _____

003 _____ ¼ _____ ¼ Sec _____ T _____ R _____ _____ County
 UTM Coordinates Easting (X): _____ Northing (Y): _____

004 _____ ¼ _____ ¼ Sec _____ T _____ R _____ _____ County
 UTM Coordinates Easting (X): _____ Northing (Y): _____

7.2 Primary Standard Industrial Classification (SIC) and Facility North American Industrial Classification System (NAICS) Codes.

001 - SIC 4953 and NAICS _____ 002 - SIC _____ and NAICS _____
 003 - SIC _____ and NAICS _____ 004 - SIC _____ and NAICS _____

MO 780-1479 (07-14) **7.1 SEE ATTACHMENT**

8. ADDITIONAL FORMS AND MAPS NECESSARY TO COMPLETE THIS APPLICATION
(Complete all forms that are applicable.)

- A. Is your facility a manufacturing, commercial, mining or silviculture waste treatment facility? YES NO
If yes, complete Form C or 2F.
(2F is the U.S. EPA's Application for Storm Water Discharges Associate with Industrial Activity.)
- B. Is application for storm water discharges only? YES NO
If yes, complete Form C or 2F.
- C. Is your facility considered a "Primary Industry" under EPA guidelines: YES NO
If yes, complete Forms C or 2F and D.
- D. Is wastewater land applied? YES NO
If yes, complete Form I.
- E. Is sludge, biosolids, ash or residuals generated, treated, stored or land applied? YES NO
If yes, complete Form R.
- F. If you are a Class IA CAFO, please disregard part D and E of this section. However, please attach any revision to your Nutrient Management Plan.
- F. Attach a map showing all outfalls and the receiving stream at 1" = 2,000' scale.

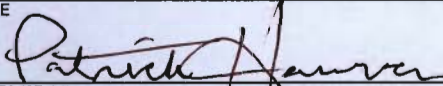
9. DOWNSTREAM LANDOWNER(S) Attach additional sheets as necessary. See Instructions.
(PLEASE SHOW LOCATION ON MAP. SEE 8.D ABOVE).

NAME
CITY OF KANSAS CITY, MO.

ADDRESS	CITY	STATE	ZIP CODE

10. I certify that I am familiar with the information contained in the application, that to the best of my knowledge and belief such information is true, complete and accurate, and if granted this permit, I agree to abide by the Missouri Clean Water Law and all rules, regulations, orders and decisions, subject to any legitimate appeal available to applicant under the Missouri Clean Water Law to the Missouri Clean Water Commission.

NAME AND OFFICIAL TITLE (TYPE OR PRINT)	TELEPHONE NUMBER WITH AREA CODE
PATRICK A. HAWVER PUBLIC WORKS DIRECTOR	(816) 274-6004

SIGNATURE	DATE SIGNED
	7/27/16

MO 780-1479 (07-14)

BEFORE MAILING, PLEASE ENSURE ALL SECTIONS ARE COMPLETED AND ADDITIONAL FORMS, IF APPLICABLE, ARE INCLUDED.

Submittal of an incomplete application may result in the application being returned.

HAVE YOU INCLUDED:

- Appropriate Fees?
- Map at 1" = 2000' scale?
- Signature?
- Form C or 2F, if applicable?
- Form D, if applicable?
- Form I (Irrigation), if applicable?
- Form R (Sludge), if applicable?
- Revised Nutrient Management Plan, if applicable?

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Water Protection Program

INSTRUCTIONS FOR COMPLETING FORM A - APPLICATION FOR NONDOMESTIC PERMIT

1. Check which option is applicable. **Do not check more than one item.** Nondomestic permit refer to permits issued by the Department of Natural Resources' Water Protection Program for all **nondomestic** wastewater treatment facilities, including all industry, stormwater, and Class IA Concentrated Animal Feeding Operations (CAFO). **This includes all nondomestic wastewater treatment facilities that incorporate domestic wastewater into the operating permit.**
 - 1.1 OPERATING PERMIT FEES
 - If the application is for a site-specific permit re-issuance, send no fees.** You will be invoiced separately by the department.
 - Discharges covered by section 644.052.4 RSMo. (Primary or Categorical Facilities)
 - \$3,500 for a design flow under 1 mgd
 - \$5,000 for a design flow of 1 mgd or more
 - A. Discharges covered by section 644.052.5 RSMo. (Secondary or Noncategorical Facilities).
 - \$1,500 for a design flow under 1 million gallons per day (mpg)
 - \$2,500 for a design flow of 1 mgd or more
 - SITE-SPECIFIC STORMWATER DISCHARGE FEES
 - A. \$1,350 for a design flow under 1 mgd
 - B. \$2,350 for a design flow of 1 mgd or more
 - CAFO OPERATING PERMIT FEES
 - A. \$5,000 for site-specific permit (Class IA)
 - OPERATING PERMIT MODIFICATIONS are subject to the following fees:
 - A. Major Modifications - 25 percent of annual fee.
 - B. Minor Modifications (in accordance with 40 CFR 122.63, including transfers) - \$100
- Note: Facility name and address changes where owner, operator and continuing authority remain the same are not considered transfers. Incomplete permit applications and/or related engineering documents will be returned by the department if they are not completed in the time frame established in a comment letter from the department to the owner. Permit fees for returned applications shall be forfeited. Permit fees for applications being processed by the department that are withdrawn by the applicant shall be forfeited.
2. Facility - Provide the name by which this facility is known locally. Example: Southwest Sewage Treatment Plant, Country Club Mobile Home Park, etc. Also include the street address or location of the facility. If the facility lacks a street name or route number, give the names of the closest intersection, highway, county road, etc.
 3. Owner - Provide the legal name and address of owner.
 - 3.1 Prior to submitting a permit to public notice, the department shall provide the permit applicant 15 days to review the draft permit for nonsubstantive drafting errors. In the interest of expediting permit issuance, permit applicants may waive the opportunity to review draft permits prior to public notice. Check YES to review the draft permit prior to public notice. Check NO to waive the process and expedite the permit.
 4. Continuing Authority - Permanent organization that will serve as the continuing authority for the operation, maintenance and modernization of the facility. The regulatory requirement regarding continuing authority is available at www.sos.mo.gov/adrules/csr/current/10csr/10c20-6a.pdf or contact the appropriate Department of Natural Resources regional office.
 5. Operator - Provide the name, certificate number and telephone number of the person operating the facility.
 6. Provide the name, title and work telephone number of a person who is thoroughly familiar with the operation of the facility and with the facts reported in this application and who can be contacted by the department, if necessary.
 - 7.1 An outfall is the point at which wastewater is discharged. Outfalls should be given in terms of the legal description of the facility. Global Positioning System, or GPS, is a satellite-based navigation system. The department prefers that a GPS receiver is used at the outfall pipe and the displayed coordinates submitted. If access to a GPS receiver is not available, please use a mapping system to approximate the coordinates; the department's mapping system is available at www.dnr.mo.gov/internetmapviewer/.
 - 7.2 List only your primary Standard Industrial Classification, or SIC, and North American Industry Classification System code for each outfall. The SIC system was devised by the U.S. Office of Management and Budget to cover all economic activities. To find the correct SIC code, an applicant may check his or her unemployment insurance forms or contact the Missouri Division of Employment Security, 573-751-3215. The primary SIC code is that of the operation that generates the most revenue. If this information is not available, the number of employees or, secondly, production rate may be used to determine your SIC code. Additional information is on the Web for Standard Industrial Codes at www.osha.gov/pls/imis/sicsearch.html and for the North American Industry Classification System at www.census.gov/naics or contact the appropriate Department of Natural Resources regional office.
 8. If you answer yes to A, B, C, D, or E, then you must complete and file the supplementary form(s) indicated. A U.S. Geological Survey 1" = 2,000' scale map must be submitted with the permit application showing all outfalls, the receiving stream and the location of the downstream property owners. This type of map is available on the Web at www.dnr.mo.gov/internetmapviewer/ or from the Missouri Department of Natural Resources' Geological Survey in Rolla at 573-368-2125.

**INSTRUCTIONS FOR COMPLETING FORM A - APPLICATION FOR NONDOMESTIC PERMIT
(CONTINUED)**

9. Please provide the name and address of the first downstream landowner, different from that of the permitted facility, through whose property the discharge will flow. Also, please indicate the location on the map. For discharges that leave the permitted facility and flow under a road or highway, or along the right-of-way, the downstream property owner is the landowner that the discharge flows to after leaving the right-of-way. For no discharge facilities, provide this information for the location where discharge would flow if there was one. For land application sites, include the owners of the land application sites and all adjacent landowners.
10. Signature - All applications must be signed as follows and the signature must be **original**:
- A. For a corporation, by an officer having responsibility for the overall operation of the regulated facility or activity or for environmental matters.
 - B. For a partnership or sole proprietorship, by a general partner or the proprietor.
 - C. For a municipal, state, federal or other public facility, by either a principal executive officer or by an individual having overall responsibility for environmental matters at the facility.

This completed form, along with the applicable permit fees, should be submitted to the Department of Natural Resources, Water Protection Program, P.O. Box 176, Jefferson City, MO 65102-0176. Submittal of an incomplete application may result in the application being returned. A map of the department's regional offices with addresses and phone numbers can be viewed at www.dnr.mo.gov/regions/ro-map.pdf. If there are any questions concerning this form, contact the appropriate regional office or the Department of Natural Resources' Water Protection Program, Permits and Engineering Section at 800-361-4827 or 573-751-6825.

For More Information

Missouri Department of Natural Resources
Water Protection Program
P.O. Box 176
Jefferson City, MO 65102-0176
800-361-4827 or 573-751-1300
www.dnr.mo.gov/env/wpp/index.html

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 #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: GW Monitoring Well
SW¼, Sec 22, T50N, R33W; Clay County
Latitude/ longitude: +3908238/ -09432410
Receiving Stream: N/A
First Classified Stream and ID: N/A
USGS Basin & Sub-watershed #: N/A

Outfall #0616

Legal Description: GW Monitoring Well
SW¼, Sec 22, T50N, R33W; Clay County
Latitude/ longitude: +3908159/ -09432470
Receiving Stream: N/A
First Classified Stream and ID: N/A
USGS Basin & Sub-watershed #: N/A

Outfall #0617

Legal Description: GW Monitoring Well
SW¼, Sec 22, T50N, R33W; Clay County
Latitude/ longitude: +3908089/ -09432509
Receiving Stream: N/A
First Classified Stream and ID: N/A
USGS Basin & Sub-watershed #: N/A

Outfall #0618

Legal Description: GW Monitoring Well
SW¼, Sec 22, T50N, R33W; Clay County
Latitude/ longitude: +3908137/ -09432536
Receiving Stream: N/A
First Classified Stream and ID: N/A
USGS Basin & Sub-watershed #: N/A

Outfall #0619

Legal Description: GW Monitoring Well
SW¼, Sec 22, T50N, R33W; Clay County
Latitude/ longitude: +3908221/ -09432536
Receiving Stream: N/A
First Classified Stream and ID: N/A
USGS Basin & Sub-watershed #: N/A

Outfall #0620

Legal Description: GW Monitoring Well
SW¼, Sec 22, T50N, R33W; Clay County
Latitude/ longitude: +3908289/ -09432483
Receiving Stream: N/A
First Classified Stream and ID: N/A
USGS Basin & Sub-watershed #: N/A

Outfall #0621

Legal Description: GW Monitoring Well
SW¼, Sec 22, T50N, R33W; Clay County
Latitude/ longitude: +3908282/ -09432443
Receiving Stream: N/A
First Classified Stream and ID: N/A
USGS Basin & Sub-watershed #: N/A

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MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM, WATER POLLUTION BRANCH
FORM C - APPLICATION FOR DISCHARGE PERMIT -
MANUFACTURING, COMMERCIAL, MINING, Water Protection Program
SILVICULTURE OPERATIONS, PROCESS AND STORMWATER

FOR AGENCY USE ONLY	
CHECK NO.	
DATE RECEIVED	FEE SUBMITTED

NOTE: DO NOT ATTEMPT TO COMPLETE THIS FORM BEFORE READING THE ACCOMPANYING INSTRUCTIONS

1.00 NAME OF FACILITY
NORTH KANSAS CITY SEWAGE TREATMENT SLUDGE LANDFILL (CLOSED)

1.10 THIS FACILITY IS NOW IN OPERATION UNDER MISSOURI OPERATING PERMIT NUMBER
MQ-0107263

1.20 THIS IS A NEW FACILITY AND WAS CONSTRUCTED UNDER MISSOURI CONSTRUCTION PERMIT NUMBER (COMPLETE ONLY IF THIS FACILITY DOES NOT HAVE AN OPERATING PERMIT).

2.00 LIST THE STANDARD INDUSTRIAL CLASSIFICATION (SIC) CODES APPLICABLE TO YOUR FACILITY (FOUR DIGIT CODE)
A. FIRST 4953 B. SECOND _____
C. THIRD _____ D. FOURTH _____

2.10 FOR EACH OUTFALL GIVE THE LEGAL DESCRIPTION.
OUTFALL NUMBER (LIST) _____ 1/4 _____ 1/4 SEC _____ T _____ R _____ COUNTY _____
SEE ATTACHMENTS

OUTFALL NUMBER (LIST)	RECEIVING WATER
#002, #003	ROCKCREEK
#006, #007, #008, #009	MISSOURI RIVER
#0615, #0616, #0617, #0618, #0619, #0620, #0621~	MONITORING WELLS

2.30 BRIEFLY DESCRIBE THE NATURE OF YOUR BUSINESS
THIS IS A CLOSED SEWAGE TREATMENT SLUDGE LANDFILL, IT HAS BEEN CLOSED SINCE 1987.

2.40 CONTINUED

C. EXCEPT FOR STORM RUNOFF, LEAKS OR SPILLS, ARE ANY OF THE DISCHARGES DESCRIBED IN ITEMS A OR B INTERMITTENT OR SEASONAL?

YES (COMPLETE THE FOLLOWING TABLE) NO (GO TO SECTION 2.50)

1. OUTFALL NUMBER (list)	2. OPERATION(S) CONTRIBUTING FLOW (list)	3. FREQUENCY		4. FLOW				C. DURATION (in days)
				A. FLOW RATE (in mgd)		B. TOTAL VOLUME (specify with units)		
		A. DAYS PER WEEK (specify average)	B. MONTHS PER YEAR (specify average)	1. LONG TERM AVERAGE	2. MAXIMUM DAILY	4. LONG TERM DAILY	3. MAXIMUM AVERAGE	

2.50 MAXIMUM PRODUCTION

A. DOES AN EFFLUENT GUIDELINE LIMITATION PROMULGATED BY EPA UNDER SECTION 304 OF THE CLEAN WATER ACT APPLY TO YOUR FACILITY?

YES (COMPLETE B.) NO (GO TO SECTION 2.60)

B. ARE THE LIMITATIONS IN THE APPLICABLE EFFLUENT GUIDELINES EXPRESSED IN TERMS OF PRODUCTION (OF OTHER MEASURE OF OPERATION)?

YES (COMPLETE c.) NO (GO TO SECTION 2.60)

C. IF YOU ANSWERED "YES" TO B. LIST THE QUANTITY THAT REPRESENTS AN ACTUAL MEASUREMENT OF YOUR MAXIMUM LEVEL OF PRODUCTION, EXPRESSED IN THE TERMS AND UNITS USED IN THE APPLICABLE EFFLUENT GUIDELINE AND INDICATE THE AFFECTED OUTFALLS.

1. MAXIMUM QUANTITY

A. QUANTITY PER DAY	B. UNITS OF MEASURE	C. OPERATION, PRODUCT, MATERIAL, ETC. (specify)	2. AFFECTED OUTFALLS (list outfall numbers)

2.60 IMPROVEMENTS

A. ARE YOU NOW REQUIRED BY ANY FEDERAL, STATE OR LOCAL AUTHORITY TO MEET, ANY IMPLEMENTATION SCHEDULE FOR THE CONSTRUCTION, UPGRADING OR OPERATION OF WASTEWATER TREATMENT EQUIPMENT OR PRACTICES OR ANY OTHER ENVIRONMENTAL PROGRAMS THAT MAY AFFECT THE DISCHARGES DESCRIBED IN THIS APPLICATION? THIS INCLUDES, BUT IS NOT LIMITED TO, PERMIT CONDITIONS, ADMINISTRATIVE OR ENFORCEMENT ORDERS, ENFORCEMENT COMPLIANCE SCHEDULE LETTERS, STIPULATIONS, COURT ORDERS AND GRANT OR LOAN CONDITIONS.

YES (COMPLETE THE FOLLOWING TABLE) NO (GO TO 3.00)

1. IDENTIFICATION OF CONDITION AGREEMENT, ETC.	2. AFFECTED OUTFALLS		3. BRIEF DESCRIPTION OF PROJECT	4. FINAL COMPLIANCE DATE	
				A. REQUIRED	B. PROJECTED

B. OPTIONAL: YOU MAY ATTACH ADDITIONAL SHEETS DESCRIBING ANY ADDITIONAL WATER POLLUTION CONTROL PROGRAMS (OR OTHER ENVIRONMENTAL PROJECTS WHICH MAY AFFECT YOUR DISCHARGES) YOU NOW HAVE UNDER WAY OR WHICH YOU PLAN. INDICATE WHETHER EACH PROGRAM IS NOW UNDER WAY OR PLANNED, AND INDICATE YOUR ACTUAL OR PLANNED SCHEDULES FOR CONSTRUCTION.

MARK "X" IF DESCRIPTION OF ADDITIONAL CONTROL PROGRAMS IS ATTACHED.

3.10 BIOLOGICAL TOXICITY TESTING DATA

DO YOU HAVE ANY KNOWLEDGE OR REASON TO BELIEVE THAT ANY BIOLOGICAL TEST FOR ACUTE OR CHRONIC TOXICITY HAS BEEN MADE ON ANY OF YOUR DISCHARGES OR ON RECEIVING WATER IN RELATION TO YOUR DISCHARGE WITHIN THE LAST THREE YEARS?

YES (IDENTIFY THE TEST(S) AND DESCRIBE THEIR PURPOSES BELOW.) NO (GO TO 3.20)

3.20 CONTRACT ANALYSIS INFORMATION

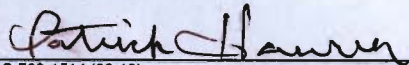
WERE ANY OF THE ANALYSES REPORTED PERFORMED BY A CONTRACT LABORATORY OR CONSULTING FIRM?

YES (LIST THE NAME, ADDRESS AND TELEPHONE NUMBER OF AND POLLUTANTS ANALYZED BY EACH SUCH LABORATORY OR FIRM BELOW.) NO (GO TO 3.30)

A. NAME	B. ADDRESS	C. TELEPHONE (area code and number)	D. POLLUTANTS ANALYZED (list)
KEYSTONE LABORATORIES INC.	1140 WEST CAMBRIDGE CIRCLE DRIVE, KANSAS CITY, KS. 66103	(913) 831-6778	ALL EXCEPT, C.O.D., pH, TEMP., CONDUCTIVITY, ODOR, COLOR, ETC. PERFORMED BY N.K.C. PERSONELL

3.30 CERTIFICATION

I CERTIFY UNDER PENALTY OF LAW THAT I HAVE PERSONALLY EXAMINED AND AM FAMILIAR WITH THE INFORMATION SUBMITTED IN THIS APPLICATION AND ALL ATTACHMENTS AND THAT, BASED ON MY INQUIRY OF THOSE INDIVIDUALS IMMEDIATELY RESPONSIBLE FOR OBTAINING THE INFORMATION, I BELIEVE THAT THE INFORMATION IS TRUE, ACCURATE AND COMPLETE. I AM AWARE THAT THERE ARE SIGNIFICANT PENALTIES FOR SUBMITTING FALSE INFORMATION, INCLUDING THE POSSIBILITY OF FINE AND IMPRISONMENT.

NAME AND OFFICIAL TITLE (TYPE OR PRINT) PATRICK A. HAWVER PUBLIC WORKS DIRECTOR	TELEPHONE NUMBER WITH AREA CODE (816) 274-6004
SIGNATURE (SEE INSTRUCTIONS) 	DATE SIGNED 7/27/16

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 #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

<u>Outfall #0615</u>	GW Monitoring Well
Legal Description:	SW¼, Sec 22, T50N, R33W; Clay County
Latitude/ longitude:	+3908238/ -09432410
Receiving Stream:	N/A
First Classified Stream and ID:	N/A
USGS Basin & Sub-watershed #:	N/A
<u>Outfall #0616</u>	GW Monitoring Well
Legal Description:	SW¼, Sec 22, T50N, R33W; Clay County
Latitude/ longitude:	+3908159/ -09432470
Receiving Stream:	N/A
First Classified Stream and ID:	N/A
USGS Basin & Sub-watershed #:	N/A
<u>Outfall #0617</u>	GW Monitoring Well
Legal Description:	SW¼, Sec 22, T50N, R33W; Clay County
Latitude/ longitude:	+3908089/ -09432509
Receiving Stream:	N/A
First Classified Stream and ID:	N/A
USGS Basin & Sub-watershed #:	N/A
<u>Outfall #0618</u>	GW Monitoring Well
Legal Description:	SW¼, Sec 22, T50N, R33W; Clay County
Latitude/ longitude:	+3908137/ -09432536
Receiving Stream:	N/A
First Classified Stream and ID:	N/A
USGS Basin & Sub-watershed #:	N/A
<u>Outfall #0619</u>	GW Monitoring Well
Legal Description:	SW¼, Sec 22, T50N, R33W; Clay County
Latitude/ longitude:	+3908221/ -09432536
Receiving Stream:	N/A
First Classified Stream and ID:	N/A
USGS Basin & Sub-watershed #:	N/A
<u>Outfall #0620</u>	GW Monitoring Well
Legal Description:	SW¼, Sec 22, T50N, R33W; Clay County
Latitude/ longitude:	+3908289/ -09432483
Receiving Stream:	N/A
First Classified Stream and ID:	N/A
USGS Basin & Sub-watershed #:	N/A
<u>Outfall #0621</u>	GW Monitoring Well
Legal Description:	SW¼, Sec 22, T50N, R33W; Clay County
Latitude/ longitude:	+3908282/ -09432443
Receiving Stream:	N/A
First Classified Stream and ID:	N/A
USGS Basin & Sub-watershed #:	N/A