

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-0108774

Owner: St. Francois County Environmental Corporation
Address: 200 Landfill Road, Park Hills, MO 63601

Continuing Authority: Same as above
Address: Same as above

Facility Name: St. Francois County Environmental Corporation
Facility Address: 200 Landfill Road, Park Hills, MO 63601

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

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

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

FACILITY DESCRIPTION

SEE PAGE 2

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 discharges under the Missouri Clean Water Law and the National Pollutant Discharge Elimination System; it does not apply to other regulated areas. This permit may be appealed in accordance with Sections 640.013, 621.250, and 644.051.6 of the Law.


September 1, 2017

Effective Date


Edward B. Galbraith, Director, Division of Environmental Quality

August 31, 2022

Expiration Date


Chris Wieberg, Director, Water Protection Program

FACILITY DESCRIPTION

St. Francois County Environmental Corporation is a closed and capped sanitary landfill, with an operational solid waste transfer station. Leachate is not discharged from this facility. A series of sedimentation basins prevents discharge from outfalls at this facility in most circumstances.

OUTFALL #001 – Eliminated in a previous permit. Discharge is not authorized from this outfall.

OUTFALL #002 – Stormwater; SIC # 4953

Receives stormwater from closed landfill and transfer station; sedimentation basin treatment.

Legal Description:	Landgrant 870, St. Francois County
UTM Coordinates:	X = 715922, Y = 4194605
Receiving Stream:	Tributary to Big River
First Classified Stream and ID:	Big River (P) 2080, 303(d)
USGS Basin & Sub-watershed No.:	Owl Creek-Big River (07140104-0111)
Design Flow:	3.3 MGD
Actual flow:	Dependent upon precipitation

OUTFALL #003 – Stormwater; SIC # 4953

Receives stormwater from closed landfill and transfer station; sedimentation basin treatment.

Legal Description:	Landgrant 3176, St. Francois County
UTM Coordinates:	X = 716252, Y = 4194694
Receiving Stream:	Tributary to Big River
First Classified Stream and ID:	Big River (P) 2080, 303(d)
USGS Basin & Sub-watershed No.:	Owl Creek-Big River (07140104-0111)
Design Flow:	1.2 MGD
Actual flow:	Dependent upon precipitation

OUTFALL #004 – Upstream monitoring; eliminated in this permit.

OUTFALL #005 – Downstream monitoring; eliminated in this permit.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

OUTFALL #002, #003 Stormwater Only	TABLE A 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 September 1, 2017 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		BENCHMARKS	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	**		90	once/quarter	grab
Oil & Grease	mg/L	**		10	once/quarter	grab
pH ^Ω	SU	6.5 to 9.0		-	once/quarter	grab
Settleable Solids	mL/L/hr	1.5		-	once/quarter	grab
Total Suspended Solids	mg/L	59		-	once/quarter	grab
METALS						
Barium, Total Recoverable	µg/L	*		-	once/quarter	grab
Cadmium, Total Recoverable	µg/L	*		-	once/quarter	grab
Copper, Total Recoverable	µg/L	*		-	once/quarter	grab
Iron, Total Recoverable	µg/L	**		4000	once/quarter	grab
Lead, Total Recoverable	µg/L	65		-	once/quarter	grab
Manganese, Total Recoverable	µg/L	*		-	once/quarter	grab
Selenium, Total Recoverable	µg/L	*		-	once/quarter	grab
Thallium, Total Recoverable	µg/L	*		-	once/quarter	grab
Zinc, Total Recoverable	µg/L	*		-	once/quarter	grab
NUTRIENTS						
Ammonia as N	mg/L	*	-	once/quarter	grab	
Phosphorus, Total (TP)	mg/L	*	-	once/quarter	grab	
OTHER						
Benzene	µg/L	*	-	once/quarter	grab	
Chloride	mg/L	*	-	once/quarter	grab	
Chloride + Sulfate	mg/L	*	-	once/quarter	grab	
Sulfate	mg/L	*	-	once/quarter	grab	
MONITORING REPORTS SHALL BE SUBMITTED QUARTERLY; THE FIRST REPORT IS DUE JANUARY 28, 2018. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						

See notes on page 4

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (CONTINUED)

- * Monitoring requirement only.
- ** Monitoring requirement with associated benchmark. See Special Conditions #9 through #12
- ∞ 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.
- Ω The facility will report the minimum and maximum values. pH is not to be averaged.
- ◇ Quarterly sampling

MINIMUM QUARTERLY SAMPLING REQUIREMENTS			
QUARTER	MONTHS	EFFLUENT PARAMETERS	REPORT IS DUE
First	January, February, March	Sample at least once during any month of the quarter	April 28 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

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 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.
2. All outfalls must be clearly marked in the field.
3. 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).
4. Report as no-discharge when a discharge does not occur during the report period.

C. SPECIAL CONDITIONS (CONTINUED)

5. Electronic Discharge Monitoring Report (eDMR) Submission System.

The permittee shall submit an eDMR Permit Holder and Certifier Registration form within **90 days** of the effective date of this permit. Per 40 CFR Part 127 National Pollutant Discharge Elimination System (NPDES) Electronic Reporting Rule, reporting of effluent limits and monitoring shall be submitted by the permittee via an electronic system to ensure a timely, complete, accurate, and nationally-consistent set of data. Visit <http://dnr.mo.gov/pubs/pub2474.pdf> to access the Facility Participation Package which contains the eDMR Permit Holder and Certifier Registration form.

Once the permittee is activated in the eDMR 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:
 - (1) 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>.
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. 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).

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

8. Any pesticide discharge from any point source shall comply with the requirements of Federal Insecticide, Fungicide and Rodenticide Act, as amended (7 U.S.C. 136 *et. seq.*) and the use of such pesticides shall be in a manner consistent with its label.

9. 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 effective 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)

10. The facility's SIC code(s) is found in 40 CFR 122.26(b)(14) and/or 10 CSR 20-6.200(2) hence 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.
11. 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.
12. 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.
 - (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.
 - (f) Ensure adequate provisions are provided to prevent surface water intrusion into the storage basin, to divert stormwater runoff around the storage basin, and to protect embankments from erosion.

C. SPECIAL CONDITIONS (CONTINUED)

13. 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.
14. Release of a hazardous substance must be reported to the department in accordance with 10 CSR 24-3.010. A record of each reportable spill shall be retained with the SWPPP and made available to the department upon request.

MISSOURI DEPARTMENT OF NATURAL RESOURCES
FACT SHEET
FOR THE PURPOSE OF RENEWAL
OF
MO-0108774
ST. FRANCOIS ENVIRONMENTAL CORPORATION

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 stormwater
Facility SIC Code(s): 4953
Application Date: 02/18/2016
Expiration Date: 05/21/2014
Last Inspection: 03/13/2013 In Compliance

FACILITY DESCRIPTION:

St. Francois County Environmental Corporation is a closed and capped sanitary landfill, with an operational solid waste transfer station. The landfill was closed in 1995. Leachate is not discharged from this facility. A series of sedimentation basins prevents discharge from the outfalls at this facility in most circumstances. Land application of the stormwater is also done on the cap of the landfill. Leachate is stored in tanks. This landfill is situated on land previously associated with the Desloge mine tailings site, which is part of the Big River Mine Tailing/St. Joe Minerals Corp. Superfund Site. For more information on the Superfund site, see <https://cumulis.epa.gov/supercpad/cursites/csitinfo.cfm?id=0701639> and <https://dnr.mo.gov/env/hwp/sfund/bigriver.htm>. The landfill is not part of the Superfund area, but is adjacent to the reclamation areas.

PERMITTED FEATURES TABLE:

OUTFALL	AVERAGE FLOW (MGD)	DESIGN FLOW (MGD)	TREATMENT LEVEL	EFFLUENT TYPE
#002	dependent on precipitation	3.3	BMPs, sedimentation	landfill stormwater
#003	dependent on precipitation	1.2	BMPs, sedimentation	landfill stormwater

FACILITY PERFORMANCE HISTORY & COMMENTS:

The discharge monitoring reports were reviewed for the last five years. The DMRs showed no discharge at any outfall except for one data point at outfall #002 in 2013. There was an exceedance of total recoverable iron for this discharge. No other violations were noted. The facility was found to be in compliance during the last WPP inspection.

FACILITY MAP:



Part II. RECEIVING STREAM INFORMATION

RECEIVING WATER BODY'S WATER QUALITY:

The receiving stream Tributary to Big River has no concurrent water quality data available. Big River (P) (2080) is the first classified receiving water body. The receiving segment of Big River is found on the 2006 303(d) list for cadmium in the sediment, the 2010 303(d) list for lead in the sediment, and the 2014 303(d) list for zinc found in the sediment; with the cause being attributed to mine and mill tailings. There is a 2010 TMDL in place for lead and non-volatile suspended solids (NVSS).

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>

- ✓ Applicable; Big River is listed on the 2006, 2010, and 2014 Missouri 303(d) list for cadmium in sediment, lead in sediment, and zinc in sediment.
- ✓ It is unknown at this time if the facility is a source of the above listed pollutant(s) or considered to contribute to the impairment. Once a TMDL is developed, the permit may be modified to include WLAs from the TMDL.

TOTAL MAXIMUM DAILY LOAD (TMDL):

A TMDL is a calculation of the maximum amount of a given pollutant that a body of water can absorb before its water quality is affected; 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/>

- ✓ Applicable; Big River is associated with the 2010 EPA approved TMDL for lead and NVSS.
- ✓ This facility is considered to be a source of or has the potential to contribute to the above listed pollutant(s). A wasteload allocation will be implemented for lead and total suspended solids, shown in the table below. Please see the derivation and discussion of limits below for the final effluent limitations calculation based on this TMDL.

Pollutant	Outfall #002 Wasteload Allocations	Outfall #003 Wasteload Allocations
Total Suspended Solids	1622 lbs/day	590 lbs/day
Lead, Total Recoverable	0.33 lbs/day	0.12 lbs/day

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 Big River	n/a	n/a	GEN	0.35	07140104-0111 Owl Creek-Big River
	Big River	P	2080	HHP, IND, IRR, LWW, SCR, WBC-A, WWH (AQL)		
#003	Tributary to Big River	n/a	n/a	GEN	0.55	
	Big River	P	2080	HHP, IND, IRR, LWW, SCR, WBC-A, WWH (AQL)		

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. The previous permit required both an upstream and a downstream monitoring point; however, it is in the best professional judgment of the permit writer the instream monitoring is unnecessary for several reasons. First, the facility rarely discharges stormwater; therefore, their contribution to the stream is expected to be minimal except when discharging. The facility discharged once in the past five years from one outfall. Secondly, the stream receives considerable input from NPS discharges in the area between the upstream and downstream monitoring points, including the Desloge mine tailings Superfund site. Any downstream contributions from the landfill would be unable to be distinguished from the contributions of the Superfund site, and there are no more suitable or reasonable locations to attempt monitoring. Third, and finally, the permit writer was told by the permittee monitoring locations are located in precarious and unsafe environments, leading to possible endangerment of landfill sampling personnel.

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)].

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.

- ✓ 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 and #003 were established in error, based on limits for process wastewater, however, this is a stormwater outfall. 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.
 - The limitations on lead and TSS are changed to concentration based limits from lbs/day limits. This decision was reviewed by the Watershed Protection Section and is considered protective of the receiving waterbody and consistent with the assumptions and requirements of the TMDL. The limit for zinc is removed as the TMDL was incorrectly applied in the last permit. Limits are removed from iron based on an error in the application of the limits in the past permit. See Effluent Limits Determination section for more details.
 - Limits are removed from cadmium on both outfall #002 and #003. The previous permit required limits on this parameter; however, the permit writer at that time noted they were unable to determine reasonable potential. The permittee reported this pollutant believed absent on the application materials received 02/18/2016. Additionally, the DMR data shows one data point at a non-detect. It is in the best professional judgment of the permit writer to remove limits on this parameter due to no data indicating a water quality issue, and the permittee believes the pollutant is absent.
 - Monthly averages were not implemented for outfalls #002 & #003 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 that 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 that 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.
 - Several parameters are removed from this permit. Temperature is removed from both outfalls because it is unnecessary to monitor temperature in stormwater effluent. BOD is removed because oxygen demand will be monitored through COD analysis. Antimony, arsenic, beryllium, boron, cobalt, chromium (III), chromium (VI), nickel, and silver are removed from this permit because the permittee reported them believed absent on the application materials received 02/18/2016; in addition, the DMR values reported are non-detects. Nitrate as N is removed from this permit because it has no water quality standards applicable to the receiving water body. Although the permittee reported the pollutant "believed present", the application materials do not indicate a water quality issue (0.34 mg/L). Ethylbenzene, toluene, and xylene are removed because benzene monitoring is sufficient to evaluate possible hydrocarbon discharges in the gasoline range, and all associated DMR data was well below the water quality standard. Hardness is removed because stormwater effluent hardness does not necessarily indicate instream hardness; therefore monitoring the effluent for this parameter is unnecessary for permitting purposes.

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).

- ✓ Not applicable; this condition is not applicable to the permittee for this facility.

COMPLIANCE AND ENFORCEMENT:

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

- ✓ Not applicable; the permittee/facility is not currently under Water Protection Program enforcement action.

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 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 not required to monitor groundwater for the water protection program.

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 land applied 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.

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 a SOC..

SECONDARY CONTAINMENT STRUCTURES SPECIAL CONDITION:

The previous permit's special conditions required sampling of total petroleum hydrocarbons (TPH) under the decision model to discharge stormwater having a sheen in secondary containment. The special condition has been revised in all permits beginning in 2015 to include oil and grease and BTEX (benzene, toluene, ethylbenzene, and xylene) sampling of the potentially contaminated stormwater in secondary containment. This change was due to 1) no water quality standards for TPH; and 2) there are no approved methods found in 40 CFR 136 for TPH. The facility need only sample for these constituents prior to release when a sheen or petroleum odor is present.

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:

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 that 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; the operating 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 of determining if a discharge from the facility may be causing toxicity to aquatic life by itself, in combination with, or through synergistic responses, when mixed with receiving stream water.

✓ Not applicable; at this time, the permittee is not required to conduct WET testing for this facility.

Part IV. EFFLUENT LIMITS DETERMINATION

GENERAL CRITERIA CONSIDERATIONS:

In accordance with 40 CFR 122.44(d)(1), effluent limitations shall be placed into the permit for those pollutants which have been determined to cause, have the reasonable potential to cause, or contribute to an excursion above any State water quality standard, including State narrative criteria for water quality. The rule further states that 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. In order to comply with this regulation, the permit writer will complete reasonable potential determinations on whether the discharge will violate any 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)). 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.

It is in the best professional judgment of the permit writer that discharges from outfalls #002 and #003 do not have reasonable potential for excursions from this criterion. This facility rarely discharges through use of sedimentation ponds. The lack of discharge from this site decreases the chance for build-up of solid materials which could lead to unsightly bottom deposits. Additionally, this site is primarily a closed and capped landfill, meaning there is no active working face exposed to stormwater. The activities of the transfer station occur under roof, and are subject to a number of Solid Waste regulations and BMP measures which prevent stormwater from contacting putrescible waste.

- (B) Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses.

It is the best professional judgment of the permit writer that discharges from outfalls #002 & #003 do not have reasonable potential to cause or contribute to an excursion from this criterion. There are no inspection reports or discharge monitoring reports which suggest an issue with the management of oil, scum, or floating debris. In addition, the landfill is closed and capped, and the operation of the transfer station occurs under roof.

- (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.

It is in the best professional judgment of the permit writer that discharges from outfalls #002 and #003 do not have reasonable potential for excursions from this criterion. This facility rarely discharges through use of sedimentation ponds. The sedimentation ponds offer settling of components which would contribute to unsightly color or turbidity. In addition, this facility is assigned wasteload allocations under the applicable TMDL for TSS which are protective of water quality. The landfill is closed and capped, and the operation of the transfer station occurs under roof; therefore, it is not expected for the stormwater from the facility to have the reasonable potential to contact materials which would contribute to offensive odors in the receiving streams.

- (D) Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life.

It is in the best professional judgment of the permit writer that discharges from outfalls #002 and #003 have reasonable potential for excursions from this criteria. The last permit states the discharges from this facility exceeded the water quality criteria for several pollutants. This facility does not frequently discharge, however, the historic records of the discharges from these sedimentation ponds indicate there is potential to exceed the waste load allocations for lead as set in the 2010 TMDL. The 2010 TMDL for Big River sets limitations on lead discharged from this site which are protective of both human health and aquatic life, and exceedances of these limits indicates the potential to contribute substances in sufficient amounts to result in toxicity to human, animal, or aquatic life. This permit continues the TMDL limits from the previous permit on lead and TSS to protect this criterion. For further information on the derivation of these limits, see below in Derivation and Discussion of Limits.

- (E) There shall be no significant human health hazard from incidental contact with the water.

It is in the best professional judgment of the permit writer that discharges from outfalls #002 and #003 have reasonable potential for excursions from this criteria. The last permit states the discharges from this facility exceeded the water quality criteria for several pollutants. This facility does not frequently discharge; however, the historic records of the discharges from these sedimentation ponds indicate there is potential to exceed the waste load allocations for lead as set in the 2010 TMDL. The 2010 TMDL for Big River sets limitations on lead discharged from this site which are protective of both human health and aquatic life, and exceedances of these limits indicates the potential to contribute substances in sufficient amounts to a human health hazard from incidental contact with the receiving waters. This permit continues the TMDL limits from the previous permit on lead to protect this criterion. For further information on the derivation of these limits, see below in Derivation and Discussion of Limits.

- (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.

It is in the best professional judgment of the permit writer that discharges from outfalls #002 and #003 have reasonable potential for excursions from the portion of this criterion which references chemical changes, but no reasonable potential for excursions from the other portions of the criterion referencing physical or hydrologic changes. Chemical changes which would impair the natural biological community have been considered, as described by (D) and (F). Physical and hydrological changes are not expected to be caused by the outfalls at this facility due to the BMP measures in place, which decrease the rate of flow from the outfall, including sedimentation basins which are maintained mostly as no discharge structures.

(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.

This facility complies with solid waste regulations found in 10 CSR 80-3.010 (16), which require the landfill be operated in an aesthetically acceptable manner. Litter control through various means is required by this regulation. The permit writer believes the discharges from outfalls #002 & 003 do not have reasonable potential to cause or contribute to an excursion from this criterion. In addition, this landfill is closed and capped.

OUTFALL #002, #003 – STORMWATER OUTFALLS

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.

EFFLUENT LIMITATIONS TABLE:

PARAMETERS OUTFALLS #002 & #003	UNIT	BASIS	DAILY MAXIMUM LIMIT	BENCHMARK	PREVIOUS PERMIT LIMITS	MINIMUM SAMPLING FREQUENCY	MINIMUM REPORTING FREQUENCY	SAMPLE TYPE
PHYSICAL								
FLOW	MGD	6	*	-	SAME	ONCE/QUARTER	ONCE/QUARTER	24 HR. EST
PRECIPITATION	INCHES	6	*	-	SAME	ONCE/QUARTER	ONCE/QUARTER	MEASURED
TEMPERATURE	REMOVED FROM THIS PERMIT							
CONVENTIONAL								
BOD	REMOVED FROM THIS PERMIT							
COD	MG/L	6	**	90	90/60	ONCE/QUARTER	ONCE/QUARTER	GRAB
OIL & GREASE	MG/L	1, 3	**	10	15/10	ONCE/QUARTER	ONCE/QUARTER	GRAB
pH ‡	SU	1, 3	6.5 TO 9.0	-	SAME	ONCE/QUARTER	ONCE/QUARTER	GRAB
SETTLABLE SOLIDS	ML/L/HR	6	1.5	-	1.5/1.0	ONCE/QUARTER	ONCE/QUARTER	GRAB
TSS	MG/L	7	59	-	1621 LBS & 588 LBS	ONCE/QUARTER	ONCE/QUARTER	GRAB
METALS								
ANTIMONY, TOTAL REC.	REMOVED FROM THIS PERMIT							
ARSENIC, TOTAL RECOV.	REMOVED FROM THIS PERMIT							
BARIUM, TOTAL RECOV.	µg/L	6	*	-	SAME	ONCE/QUARTER	ONCE/QUARTER	GRAB
BERYLLIUM, TOTAL REC.	REMOVED FROM THIS PERMIT							
BORON, TOTAL RECOVER.	REMOVED FROM THIS PERMIT							
CADMIUM, TOTAL RECOV.	µg/L	6	*	-	9.6/4.8	ONCE/QUARTER	ONCE/QUARTER	GRAB
CHROMIUM III, TOT RECO.	REMOVED FROM THIS PERMIT							
CHROMIUM VI, DISSOLVED	REMOVED FROM THIS PERMIT							
COBALT, TOTAL RECOV.	REMOVED FROM THIS PERMIT							
COPPER, TOTAL RECOV.	µg/L	6	*	-	SAME	ONCE/QUARTER	ONCE/QUARTER	GRAB
IRON, TOTAL RECOVER.	µg/L	6	**	4000	1600/800	ONCE/QUARTER	ONCE/QUARTER	GRAB
LEAD, TR	µg/L	7	65	-	0.33/0.16	ONCE/QUARTER	ONCE/QUARTER	GRAB
MANGANESE, TOTAL REC.	µg/L	6	*	-	SAME	ONCE/QUARTER	ONCE/QUARTER	GRAB
MERCURY, TOTAL RECOV.	REMOVED FROM THIS PERMIT							
NICKEL, TOTAL RECOV.	REMOVED FROM THIS PERMIT							
SELENIUM, TOTAL RECOV.	µg/L	6	*	-	SAME	ONCE/QUARTER	ONCE/QUARTER	GRAB
SILVER, TOTAL RECOVER.	REMOVED FROM THIS PERMIT							
THALLIUM, TOTAL RECOV.	µg/L	6	*	-	SAME	ONCE/QUARTER	ONCE/QUARTER	GRAB
ZINC, TOTAL RECOVER.	µg/L	6	*	-	215.2/107.3	ONCE/QUARTER	ONCE/QUARTER	GRAB
NUTRIENTS								

PARAMETERS OUTFALLS #002 & #003	UNIT	BASIS	DAILY MAXIMUM LIMIT	BENCHMARK	PREVIOUS PERMIT LIMITS	MINIMUM SAMPLING FREQUENCY	MINIMUM REPORTING FREQUENCY	SAMPLE TYPE
AMMONIA AS N	MG/L	6	*	-	SAME	ONCE/QUARTER	ONCE/QUARTER	GRAB
NITRATE AS N	REMOVED FROM THIS PERMIT							
PHOSPHORUS, TOTAL (TP)	MG/L	6	*	-	SAME	ONCE/QUARTER	ONCE/QUARTER	GRAB
OTHER								
BENZENE	µg/L	6	*	-	SAME	ONCE/QUARTER	ONCE/QUARTER	GRAB
CHLORIDE	MG/L	6	*	-	SAME	ONCE/QUARTER	ONCE/QUARTER	GRAB
CHLORIDE + SULFATE	MG/L	6	*	-	1000/1000	ONCE/QUARTER	ONCE/QUARTER	GRAB
ETHYLBENZENE	REMOVED FROM THIS PERMIT							
FLUORIDE	REMOVED FROM THIS PERMIT							
HARDNESS, TOTAL	REMOVED FROM THIS PERMIT							
SULFATE	MG/L	6	*	-	SAME	ONCE/QUARTER	ONCE/QUARTER	GRAB
TOLUENE	REMOVED FROM THIS PERMIT							
XYLENE, TOTAL	REMOVED FROM THIS PERMIT							

* - 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

Basis for Limitations Codes:

- | | | |
|--|-----------------------------------|--|
| 1. State or Federal Regulation/Law | 5. Water Quality Model | 9. Benchmark based on Missouri Water Quality Standards |
| 2. Water Quality Standard (includes RPA) | 6. Best Professional Judgment | |
| 3. Water Quality Based Effluent Limits | 7. TMDL or Permit in lieu of TMDL | |
| 4. Antidegradation Review/Policy | 8. Benchmark based on MSGP | |

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

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.

Temperature

Removed from this permit. It is not necessary to monitor and report temperature of stormwater. Temperature in stormwater will likely be strongly linked to the outside ambient temperature, and measuring it will not provide information useful for permitting.

CONVENTIONAL:

Biochemical Oxygen Demand (BOD₅)

Removed from this permit. This parameter is removed from this permit because COD will be used to monitor oxygen demand at this site. Application and DMR data do not indicate a water quality concern for this pollutant.

Chemical Oxygen Demand (COD)

Monitoring, with a daily maximum benchmark of 90 mg/L. The previous permit required a daily maximum limit of 90 mg/L, with a monthly average of 60 mg/L. Application and DMR data do not show a water quality concern. In addition, this permittee rarely discharges. It is in the best professional judgment of the permit writer to remove limits on this parameter and instead require monitoring with a benchmark of 90 mg/L. This value falls within the range of values implemented in other permits that have

similar industrial activities. COD is 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.

Oil & Grease

Monitoring, with a daily maximum benchmark of 10 mg/L. This is a technology based benchmark that is believed to be achievable at this site based on DMR data. It is in the professional judgment of the permit writer to require monitoring of this pollutant with a benchmark that represents a technology based standard found to be achievable in other industrial permits. The previous permit required a daily maximum limit of 15 mg/L with a monthly average limit of 10 mg/L. It is in the best professional judgment of the permit writer to remove the limits from this pollutant after review of application and DMR data, as the discharge from this site does not indicate a water quality concern.

pH

6.5 to 9.0 SU. 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)

Daily maximum limit of 1.5 mL/L/hr. The maximum is continued from the previous permit, which also required a monthly average limit of 0.5 mL/L/hr. It is in the best professional judgment of the permit writer to retain the limits on this parameter, given the TMDL on the receiving stream for solids. There is no water quality standard for SS; however, sediment discharges can negatively impact aquatic life habitat. Settleable solids are also a valuable indicator parameter. Solids monitoring allows the permittee to identify increases in sediment and solids that may indicate uncontrolled materials leaving the site. Similar facilities have permit limits of 1.5 mL/L/hour daily maximum, and this maximum is considered typical and achievable.

Total Suspended Solids (TSS)

Daily maximum limit at outfall #002 = 59 mg/L

Daily maximum limit at outfall #003 = 59 mg/L

There are no water quality standards for TSS, therefore the TMDL limits are applied in this permit. These limits are converted to concentration based limits (mg/L) from mass based limits (lbs/day).

Per the TMDL on Big River:

“The St. Francois County Environmental Corporation facility is a contributor of Total Suspended Solids (TSS) to Big River (WBID: 2080). The facility contributes TSS to the water quality impairment in conjunction with discharges from the Vessell Mineral Products facility. During low flow conditions, it is reasonable to allocate the entire loading capacity of a pollutant as wasteload allocations due to the lack of pollutant contributions from precipitation induced surface water runoff. Because the St. Francois Environmental Corporation and Vessell Mineral Products facilities both discharge TSS to Big River, the two facilities should share the loading capacity for TSS during low-flow conditions. Therefore, the combined TSS wasteload allocation for these facilities during low-flow conditions is 1,115 kg/day.”

1115 kg/day = 2458.154 lbs/day

St. Francois Design Flow (Outfalls #002 & #003 combined) = 4.5 MGD

Vessel Minerals Design Flow (Outfall #004) = 0.5 MGD

Vessel Minerals = 10% of flow, St. Francois = 90% of flow

90% of 2458.154 = 2212.3386 lbs/day

Outfall #002 = 3.3 MGD Outfall #003 = 1.2 MGD

Outfall #002 = 73.3 % of flow, Outfall #003 = 26.67% of flow

Outfall #002 = $0.733 * 2212.3386 = 1621.644 \text{ lbs/day} = 1622 \text{ lbs/day} = (1622 \text{ lbs/day}) / (3.3 \text{ MGD} * 8.34) = 58.9 \text{ mg/L} =$
59 mg/L = WLA

Outfall #003 = $0.2667 * 2212.3386 = 589.95 \text{ lbs/day} = 590 \text{ lbs/day} = (590 \text{ lbs/day}) / (1.2 \text{ MGD} * 8.34) = 58.9 \text{ mg/L} =$
59 mg/L = WLA

METALS:

General warm-water habitat criteria apply (WWH) designated as AQL in 10 CSR 20-7.031 Table A. Additional use criterion (HHP, DWS, GRW, IRR, or LWW) may also be used as applicable to determine the most protective effluent limit for the stream class and uses.

Antimony, Total Recoverable

Removed from this permit. The permittee reported this pollutant as believed absent on the application materials received 02/18/2016. All data available for this pollutant is non-detect. It is the best professional judgment of the permit writer to remove this parameter from this permit.

Arsenic, Total Recoverable

Removed from this permit. The permittee reported this pollutant as believed absent on the application materials received 02/18/2016. All data available for this pollutant is non-detect. It is the best professional judgment of the permit writer to remove this parameter from this permit.

Barium, Total Recoverable

Monitoring only, continued from the previous permit. This pollutant was reported believed present on the application materials received 02/18/2016. The data available shows low values when compared to the water quality standard, which is 2000 µg/L. There is not enough data to assess reasonable potential so monitoring is continued.

Beryllium, Total Recoverable

Removed from this permit. The permittee reported this pollutant as believed absent on the application materials received 02/18/2016. All data available for this pollutant is non-detect. It is the best professional judgment of the permit writer to remove this parameter from this permit.

Boron, Total Recoverable

Removed from this permit. The permittee reported this pollutant as believed absent on the application materials received 02/18/2016. All data available for this pollutant is non-detect. It is the best professional judgment of the permit writer to remove this parameter from this permit.

Cadmium, Total Recoverable

Monitoring only. The previous permit required a daily maximum limit of 9.6 µg/L, with a monthly average limit of 4.8 µg/L. The previous permit applied these limits on the basis there was insufficient data to determine whether or not limits were appropriate. The permit writer does not find this to be adequate justification for the application of a limit. It is in the best professional judgment of the permit writer to remove the limits on this parameter and require monitoring only. All data available for this parameter is a non-detect. In addition, the permittee reported this pollutant as believed absent on the application materials received 02/18/2016.

Chromium (III), Total Recoverable

Removed from this permit. The permittee reported this pollutant as believed absent on the application materials received 02/18/2016. All data available for this pollutant is non-detect. It is the best professional judgment of the permit writer to remove this parameter from this permit.

Chromium (VI), Dissolved

Removed from this permit. The permittee reported this pollutant as believed absent on the application materials received 02/18/2016. All data available for this pollutant is non-detect. It is the best professional judgment of the permit writer to remove this parameter from this permit.

Cobalt, Total Recoverable

Removed from this permit. The permittee reported this pollutant as believed absent on the application materials received 02/18/2016. All data available for this pollutant is non-detect. It is the best professional judgment of the permit writer to remove this parameter from this permit.

Copper, Total Recoverable

Monitoring only, continued from the previous permit. This pollutant was reported believed present on the application materials received 02/18/2016. The data available shows low values when compared to the water quality standard. There is not enough data to assess reasonable potential so monitoring is continued.

Iron, Total Recoverable

Monitoring with a daily maximum benchmark of 4,000 µg/L. The previous permit required a daily maximum limit of 1600 µg/L, with a monthly average limit of 800 µg/L. The DMR data for this facility shows one exceedance of the limit in the last permit cycle, of 1,610 µg/L. Additionally, the application data shows 2,230 µg/L at outfall #002, and 1,150 µg/L at outfall #003. The removal of limits on this parameter is valid under anti-backsliding regulations due to new information which impacts the validity of the previously assigned limitations. Due to the sporadic nature of stormwater discharges, the Department, under the direction of EPA guidance, has determined chronic standards are capricious measures of stormwater discharges. Chronic effluent limitations are based on the organism's ability to survive within the designated concentration for four days. Stormwater is rarely discharged

continuously for four days. Conversely, acute water quality standards are applicable, but are non-existent for iron. It is in the best professional judgment of the permit writer that a discharge from this outfall at 4000 µg/L per storm event is unlikely to cause an exceedance of the chronic water quality standard of 1000 µg/L over four days. After reviewing other sources of data and studies, it is in the permit writer's best professional judgment to require a 4000 µg/L daily maximum benchmark for this facility.

Lead, Total Recoverable

Outfall #002: Daily maximum limit of 65 µg/L

Outfall #003: Daily maximum limit of 65 µg/L

From the TMDL document:

"St. Francois County Environmental Corporation – The St. Francois County Environmental Corporation facility is a contributor of lead to Big River (WBID: 2080). Current total recoverable lead loading from the facility is estimated at 2,176 kg/day based on the calculations from Table 8. An eighty-five percent (85%) reduction in total recoverable lead loading (See Table 6) from the facility would equal 326.4 kg/day. Because the facility wasteload allocation calculated as a percent reduction (326.4 kg/day) is greater than that required by the TMDL load duration curve during critical low-flow conditions (95% flow exceedance, TMDL = 1.11 kg/day), a greater reduction is necessary to meet water quality standards. During critical low-flow conditions, it is reasonable to allocate the entire loading capacity of a pollutant as wasteload allocations due to the lack of pollutant contributions from precipitation induced surface water runoff. The loading capacity for lead under low-flow conditions will therefore be allocated to the St. Francois County Environmental Corporation facility as a wasteload allocation at 1.11 kg/day."

TMDL limits:

1.11 kg/day = 2.447131 lbs/day

Outfall #002 = 3.3 MGD Outfall #003 = 1.2 MGD

Outfall #002 = 73.3 % of flow Outfall #003 = 26.67% of flow

Outfall #002 = $0.733 * 2.447131 = 1.793747023$ lbs/day = $(1.8 \text{ lbs/day}) / (3.3 \text{ MGD} * 8.34) = 0.0654 \text{ mg/L} =$

65 µg/L = WLA

Outfall #003 = $0.2667 * 2.447131 = 0.652649838$ lbs/day = $(0.65 \text{ lbs/day}) / (1.2 \text{ MGD} * 8.34) = 0.0649 \text{ mg/L} =$

65 µg/L = WLA

Water Quality:

Acute AQL WQS: $e^{(1.273 * \ln 162 - 1.460448)} * (1.46203 - \ln 162 * 0.145712) = 108.6941928$ [at Hardness 162]

Acute TR WQS: $108.6941928 \div 0.7207 = 150.8175285$ [Total Recoverable Conversion]

Acute WLA: $C_e = 150.8175285 = 151 \text{ µg/L} = \text{WLA}$ [WLA=WQS when no mixing]

The TMDL is more stringent than water quality, therefore the TMDL limits are applied in this permit. The previous permit used the chronic WLA to determine the water quality based limits and converted them to a lbs/day allocation. This is not appropriate for stormwater discharges and does not appear to follow the intent of the TMDL; therefore the acute WLA was used in this permit, leading to a higher limit.

Manganese, Total Recoverable

Monitoring only, continued from the previous permit. This pollutant was reported believed present on the application materials received 02/18/2016. The receiving stream does not have use designations which have water quality standards. Because the permittee reported this pollutant as believed present, monitoring is continued.

Mercury, Total Recoverable

Removed from this permit. The permittee reported this pollutant as believed absent on the application materials received 02/18/2016. All data available for this pollutant is non-detect. It is the best professional judgment of the permit writer to remove this parameter from this permit.

Nickel, Total Recoverable

Removed from this permit. The permittee reported this pollutant as believed absent on the application materials received 02/18/2016. All data available for this pollutant is non-detect. It is the best professional judgment of the permit writer to remove this parameter from this permit.

Selenium, Total Recoverable

Monitoring only, continued from the previous permit. This parameter was reported believed absent on the application materials received 02/18/2016; however, all data submitted was not sufficiently sensitive to determine whether the amount of selenium in the discharge meets water quality standards. Sufficiently sensitive methods are required under the standard conditions of this permit. See Part VI, Sampling and Reporting requirements for more information.

Silver, Total Recoverable

Removed from this permit. The permittee reported this pollutant as believed absent on the application materials received 02/18/2016. All data available for this pollutant is non-detect. It is the best professional judgment of the permit writer to remove this parameter from this permit.

Thallium, Total Recoverable

Monitoring only, continued from the previous permit. This parameter was reported believed absent on the application materials received 02/18/2016; however, all data submitted was not sufficiently sensitive to determine whether the amount of thallium in the discharge meets water quality standards. Sufficiently sensitive methods are required under the standard conditions of this permit. See Part VI, Sampling and Reporting Requirements for more information.

Zinc, Total Recoverable

Monitoring only. The previous permit required a daily maximum limit of 215.2 µg/L, with a monthly average limit of 107.3 µg/L. It is in the best professional judgment of the permit writer to remove the limits previously applied to this parameter, as they were incorrectly applied in the previous permit. The previous permit writer applied limits based on the TMDL; however, this facility is not assigned a wasteload allocation for zinc. The receiving stream of this facility is not under the TMDL for zinc. The Watershed Protection Section concurs with this assessment.

NUTRIENTS:

Ammonia, Total as Nitrogen

Monitoring only, continued from the previous permit. Ammonia is a pollutant of concern for landfill facilities, as identified in the ELG found at 40 CFR 445, therefore monitoring is continued.

Nitrate as N

This parameter is removed from this permit. The receiving stream has no use designations with water quality standards for this pollutant. Additionally, after assessing available data, the permit writer determines this pollutant does not present a water quality concern.

Phosphorous, Total P (TP)

Monitoring only, continued from previous permit. The permittee reported this pollutant as believed present on application materials received 02/18/2016. There are no water quality standards for phosphorus. Because the permittee reported this pollutant as believed present and data shows detections, monitoring is continued.

OTHER:

Benzene

Monitoring only, continued from the previous permit. This pollutant was listed as believed absent on application materials received 02/18/2016; however, it is in the best professional judgment of the permit writer to continue monitoring for this pollutant as an indicator for other pollutants in the gasoline range of hydrocarbons, particularly ethylbenzene, toluene, and xylene, which are removed from this permit.

Chloride

Monitoring only, continued from the previous permit. This parameter is a reporting requirement only, as sampling is already required under the combined chloride + sulfate parameter below.

Chloride + Sulfate

Monitoring only. The previous permit required a daily maximum limit of 1000 mg/l, with an identical monthly average. The permit writer reviewed available information for this parameter, and uses best professional judgment to remove limits. The application data shows low values for both chlorides and sulfate. The DMR data has only one available point, which is well below the 1000 mg/L value. Monitoring is continued as this is a pollutant of concern at landfill sites.

Ethylbenzene

Removed from this permit. This pollutant was reported believed absent on the application materials. The available DMRs and application data show non-detects. It is in the best professional judgement of the permit writer to remove this pollutant from monitoring. Additionally, benzene will be used at this site to monitor for pollutants in the gasoline range of hydrocarbons.

Fluoride

Removed from this permit. The permittee reported this pollutant as believed absent on the application materials received 02/18/2016. All data available for this pollutant is non-detect or very low compared to the water quality standard. It is the best professional judgment of the permit writer to remove this parameter from this permit.

Hardness, Total

Removed from this permit. Knowing the hardness of the effluent does not aid in calculating limits in this permit, as it is the hardness in stream which is required for calculations. This parameter is unnecessary and is therefore removed.

Sulfate

Monitoring only, continued from the previous permit. This parameter is a reporting requirement only, as sampling is already required under the combined chloride + sulfate parameter below.

Toluene

Removed from this permit. This pollutant was reported believed absent on the application materials. The available DMRs and application data show non-detects. It is in the best professional judgement of the permit writer to remove this pollutant from monitoring. Additionally, benzene will be used at this site to monitor for pollutants in the gasoline range of hydrocarbons.

Xylene, Total

Removed from this permit. This pollutant was not disclosed on application materials. The available DMRs and application data show non-detects. It is in the best professional judgement of the permit writer to remove this pollutant from monitoring. Additionally, benzene will be used at this site to monitor for pollutants in the gasoline range of hydrocarbons.

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 shall submit an eDMR Permit Holder and Certifier Registration form within **90 days** of the effective date of this permit.

SAMPLING FREQUENCY JUSTIFICATION:

Sampling and reporting frequency was generally retained from previous permit. 40 CFR 122.45(d)(1) indicates all continuous discharges shall be permitted with daily maximum and monthly average limits. 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.

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.

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 will not be synchronized at this time. The Final synchronization for this permit was to occur 4th Quarter 2017, which is too short of a renewal period.

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 06/23/2017 to 07/24/2017. No responses were received.

DATE OF FACT SHEET: 06/07/2017

COMPLETED BY:

AMBERLY SCHULZ, ENVIRONMENTAL SPECIALIST
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STANDARD CONDITIONS FOR NPDES PERMITS
ISSUED BY
THE MISSOURI DEPARTMENT OF NATURAL RESOURCES
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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- 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 permittee 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.

GREDELL Engineering Resources, Inc.

ENVIRONMENTAL ENGINEERING

LAND - AIR - WATER

Offices in Jefferson City, Kansas City, and Springfield, Missouri

February 17, 2016

Ms. Amanda Sappington
Water Protection Program
P.O. Box 176
Jefferson City, MO 65102

RECEIVED

FEB 18 2016

Water Protection Program

RE: Operating Permit Renewal Application for the St. Francois County Environmental Corporation, Operating Permit No. MO-0108774

Dear Ms. Sappington:

On behalf of Alan Au Buchon, manager of the St. Francois County Environmental Corporation, GREDELL Engineering Resources, Inc. is submitting one original and one copy of an operating permit renewal application (and supporting documents) for the St. Francois County Environmental Corporation, Operating Permit No. MO-0108774 near Park Hills, Missouri, in St. Francois County. This request for an operating permit renewal for the St. Francois County Environmental Corporation has been prepared in accordance with the Clean Water Act and the Missouri Clean Water Commission Laws and Rules.

In 2012 the permittee had a permit limit exceedance that was reported to the Southeast Regional Office. The permittee was directed by the Southeast Regional Office to prepare a SWPPP in accordance with the special conditions of the Permit and to address the permit limit exceedance. A SWPPP was developed which included establishing a series of four (4) detention basins above Outfall # 002 and one (1) detention basin above Outfall # 003 to detain runoff from the watersheds of these respective outfalls and to subsequently irrigate the detain runoff back onto the respective watersheds during dry periods. Therefore, Form I has been completed as part of the permit renewal and an Operations Manual has been developed and a copy is included in this submittal.

In accordance with 10 CSR 20-6.010, these documents are submitted to the Missouri Department of Natural Resources for review and approval.

If you have any questions or comments, please contact me at 417-350-2818 or via email at rickr@ger-inc.biz.

Sincerely,



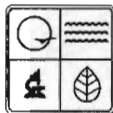
Rickie L. Roberts, P.E.
Senior Civil Engineer

- Enclosures: One original and one copy of:
- Completed and signed Form A
 - Completed and signed Form C
 - Completed and signed Form D
 - Completed and signed Form I
 - Operating Manual

C: Alan Au Buchon, Manager, St. Francois County Environmental Corporation w/ enclosures

RECEIVED

FEB 18 2016



MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM, WATER POLLUTION CONTROL BRANCH
**FORM A – APPLICATION FOR CONSTRUCTION OR OPERATING PERMIT
UNDER MISSOURI CLEAN WATER LAW**

FOR AGENCY USE ONLY

CHECK NUMBER

DATE RECEIVED

FEE SUBMITTED

Note

PLEASE READ THE ACCOMPANYING INSTRUCTIONS BEFORE COMPLETING THIS FORM.

1. This application is for:

- ☐ An operating permit and antidegradation review public notice
☐ A construction permit following an appropriate operating permit and antidegradation review public notice
☐ A construction permit and concurrent operating permit and antidegradation review public notice
☐ A construction permit (submitted before Aug. 30, 2008 or antidegradation review is not required)
☐ An operating permit for a new or unpermitted facility Construction Permit # _____
☒ An operating permit renewal: permit # MO- 0108774 Expiration Date May 21, 2014
☐ An operating permit modification: permit # MO- Reason: _____

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

2. FACILITY

NAME St. Francois County Environmental Corporation		TELEPHONE WITH AREA CODE (573) 431-4768	
		FAX (573) 431-5193	
ADDRESS (PHYSICAL) 200 Landfill Road	CITY Park Hills	STATE MO	ZIP CODE 63601

3. OWNER

NAME St. Francois County Environmental Corporation		E-MAIL ADDRESS acaubuchon@yahoo	TELEPHONE WITH AREA CODE (573) 431-4768
			FAX (573) 431-5193
ADDRESS (MAILING) 200 Landfill Road	CITY Park Hills	STATE MO	ZIP CODE 63601

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

4. CONTINUING AUTHORITY

NAME Same as Owner		TELEPHONE WITH AREA CODE	
		FAX	
ADDRESS (MAILING) Same as Owner	CITY	STATE	ZIP CODE

5. OPERATOR

NAME Same as Owner		CERTIFICATE NUMBER	TELEPHONE WITH AREA CODE
			FAX
ADDRESS (MAILING)	CITY	STATE	ZIP CODE

6. FACILITY CONTACT

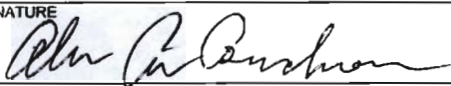
NAME Alan Au Buchon		TITLE Manager	TELEPHONE WITH AREA CODE (573) 431-4768
			FAX (573) 431-5193

7. ADDITIONAL FACILITY INFORMATION**7.1 Legal Description of Outfalls. (Attach additional sheets if necessary.)**

001 _____ 1/4 _____ 1/4 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 SE 1/4 NW 1/4 Sec 36 T 37N R 4E St. Fr County
 UTM Coordinates Easting (X): _____ Northing (Y): _____
 003 SE 1/4 NW 1/4 Sec 36 T 37N R 4E St. Fr County
 UTM Coordinates Easting (X): _____ Northing (Y): _____
 004 SW 1/4 NW 1/4 Sec 36 T 37N R 4E St. Fr County
 UTM Coordinates Easting (X): 3752241 Northing (Y): 090032423

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

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

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? If yes, complete Form C (unless storm water only, then complete U.S. Environmental Protection Agency Form 2F per Item C below).	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
B.	Is your facility considered a "Primary Industry" under EPA guidelines: If yes, complete Forms C and D.	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>
C.	Is application for storm water discharges only? If yes, complete EPA Form 2F.	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>
D.	Attach a map showing all outfalls and the receiving stream at 1" = 2,000' scale.		
E.	Is wastewater land applied? If yes, complete Form I.	YES <input checked="" type="checkbox"/>	NO <input type="checkbox"/>
F.	Is sludge, biosolids, ash or residuals generated, treated, stored or land applied? If yes, complete Form R.	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
9. DOWNSTREAM LANDOWNER(S) Attach additional sheets as necessary. See Instructions. (PLEASE SHOW LOCATION ON MAP. SEE 8.D ABOVE).			
NAME The Doe Run Company			
ADDRESS 1801 PARK 270 DR STE 300 ,		CITY SAINT LOUIS	STATE MO
		ZIP CODE 63146-4040	
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) Alan Au Buchon, Manager		TELEPHONE WITH AREA CODE (573) 431-4768	
SIGNATURE 		DATE SIGNED 2/18/2016	

MO 780-1479 (01-09)

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:

- | | |
|-------------------------------------|-------------------------------------|
| <input checked="" type="checkbox"/> | Appropriate Fees? |
| <input checked="" type="checkbox"/> | Map at 1" = 2000' scale? |
| <input checked="" type="checkbox"/> | Signature? |
| <input checked="" type="checkbox"/> | Form C, if applicable? |
| <input checked="" type="checkbox"/> | Form D, if applicable? |
| <input type="checkbox"/> | Form 2F, if applicable? |
| <input checked="" type="checkbox"/> | Form I (Irrigation), if applicable? |
| <input type="checkbox"/> | Form R (Sludge), if applicable? |



MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM
**FORM B: APPLICATION FOR OPERATING PERMIT FOR FACILITIES THAT
RECEIVE PRIMARILY DOMESTIC WASTE AND HAVE A DESIGN FLOW LESS
THAN OR EQUAL TO 100,000 GALLONS PER DAY**

FOR AGENCY USE ONLY

CHECK NUMBER

DATE RECEIVED

FEE SUBMITTED

READ THE ACCOMPANYING INSTRUCTIONS BEFORE COMPLETING THIS FORM

1. THIS APPLICATION IS FOR:

- ☐ An operating permit for a new or unpermitted facility. Construction Permit # _____
(Include completed antidegradation review or request for antidegradation review, see instructions)
- ☐ A new site-specific operating permit formerly general permit #MOG _____
- ☒ A site-specific operating permit renewal: Permit #MO- 0108774 Expiration Date 5/21/2014
- ☐ A site-specific operating permit modification: Permit #MO- _____ Reason: _____
- ☐ General permit (MOGD – Non POTWs discharging < 50,000 GPD or MOG823 – Land Application of Domestic Wastewater):
Permit #MO- _____ Expiration Date _____

1.1 Is the appropriate fee included with the application (see instructions for appropriate fee)? ☒ YES ☐ NO

2. FACILITY

NAME St. Francois County Environmental Corporation		TELEPHONE NUMBER WITH AREA CODE (573) 431-4768	
ADDRESS (PHYSICAL) 200 Landfill Road	CITY Park Hills	STATE MO	ZIP CODE 63601

2.1 Legal description: $\frac{1}{4}$, SE $\frac{1}{4}$, NW $\frac{1}{4}$, Sec. 36 , T 37 , R 4E County St. Francois

2.2 UTM Coordinates Easting (X): 3752241 Northing (Y): 090032423
For Universal Transverse Mercator (UTM), Zone 15 North referenced to North American Datum 1983 (NAD83)

2.3 Name of receiving stream: Un-named Tributary to Big River

2.4 Number of outfalls: 5 Wastewater outfalls: 0 Stormwater outfalls: 2 Instream monitoring sites: 2

3. OWNER

NAME Same		EMAIL ADDRESS acaubuchon@yahoo.com	TELEPHONE NUMBER WITH AREA CODE (573) 431-4768	
ADDRESS Same	CITY Park Hills	STATE MO	ZIP CODE 63601	

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

3.2 Are you a publicly owned treatment works? ☐ YES ☒ NO
If yes, is the Financial Questionnaire attached? ☐ YES ☐ NO

3.3 Are you a privately owned treatment works? ☒ YES ☐ NO

3.4 Are you a privately owned treatment facility regulated by the Public Service Commission? ☐ YES ☒ NO

4. CONTINUING AUTHORITY: Permanent organization that will serve as the continuing authority for the operation, maintenance and modernization of the facility.

NAME St. Francois County Environmental Corporation		EMAIL ADDRESS acaubuchon@yahoo.com	TELEPHONE NUMBER WITH AREA CODE (573) 431-4768	
ADDRESS 200 Landfill Road	CITY Park Hills	STATE MO	ZIP CODE 63601	

If the continuing authority is different than the owner, include a copy of the contract agreement between the two parties and a description of the responsibilities of both parties within the agreement.

5. OPERATOR

NAME Alan Aubuchon	TITLE Manager	CERTIFICATE NUMBER
EMAIL ADDRESS acaubuchon@yahoo.com		TELEPHONE NUMBER WITH AREA CODE (573) 431-4768

6. FACILITY CONTACT

NAME Alan Aubuchon		TITLE Manager	
EMAIL ADDRESS acaubuchon@yahoo.com		TELEPHONE NUMBER WITH AREA CODE (573) 431-4768	
ADDRESS 200 Landfill Road	CITY Park Hills	STATE MO	ZIP CODE 63601

7. DESCRIPTION OF FACILITY

7.1 Process Flow Diagram or Schematic: Provide a diagram showing the processes of the treatment plant. Show all of the treatment units, including disinfection (e.g. – chlorination and dechlorination), influents, and outfalls. Specify where samples are taken. Indicate any treatment process changes in the routing of wastewater during dry weather and peak wet weather. Include a brief narrative description of the diagram.

Attach sheets as necessary.

See attached schematic drawing.

7.2 Attach an aerial photograph or USGS topographic map showing the location of the facility and outfall.

8. ADDITIONAL FACILITY INFORMATION	
8.1	Facility SIC code: <u>4953</u> Discharge SIC code: <u>4953</u>
8.2	Number of people presently connected or population equivalent (P.E.) <u>NA</u> Design P.E. <u>NA</u>
8.3	Connections to the facility: Number of units presently connected: Homes <u>0</u> Trailers <u>0</u> Apartments <u>0</u> Other (including industrial) <u>2</u> Number of commercial establishments: <u>0</u>
8.4	Design flow: <u>4.5</u> MGD Actual flow: <u>0.6</u> MGD
8.5	Will discharge be continuous through the year? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Discharge will occur during the following months: <u>2</u> How many days of the week will discharge occur? <u>2</u>
8.6	Is industrial wastewater discharged to the facility? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, attach a list of the industries that discharge to your facility
8.7	Does the facility accept or process leachate from landfills? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
8.8	Is wastewater land applied? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No If yes, is Form I attached? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
8.9	Does the facility discharge to a losing stream or sinkhole? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
8.10	Has a wasteload allocation study been completed for this facility? <input checked="" type="checkbox"/> Yes <input type="checkbox"/> No
9. LABORATORY CONTROL INFORMATION	
LABORATORY WORK CONDUCTED BY PLANT PERSONNEL	
Lab work conducted outside of plant. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Push-button or visual methods for simple test such as pH, settleable solids. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Additional procedures such as dissolved oxygen, chemical oxygen demand, biological oxygen demand, titrations, solids, volatile content. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No More advanced determinations such as BOD seeding procedures, fecal coliform, nutrients, total oils, phenols, etc. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No Highly sophisticated instrumentation, such as atomic absorption and gas chromatograph. <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	
10. COLLECTION SYSTEM	
10.1	Length of pipe in the sewer collection system? <u>0</u> Feet, or <u>0</u> Miles (either unit is appropriate)
10.2	Does significant infiltration occur in the collection system? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, briefly explain any steps underway or planned to minimize inflow and infiltration:
11. BYPASSING	
Does any bypassing occur in the collection system or at the treatment facility? <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No If yes, explain:	

12. SLUDGE HANDLING, USE AND DISPOSAL**12.1** Is the sludge a hazardous waste as defined by 10 CSR 25? ☐ Yes ☒ No**12.2** Sludge production, including sludge received from others: 0 Design dry tons/year 0 Actual dry tons/year**12.3** Capacity of sludge holding structures:Sludge storage provided: 0 cubic feet; 0 days of storage; 0 average percent solids of sludge;☒ No sludge storage is provided. ☐ Sludge is stored in lagoon.**12.4** Type of Storage: ☐ Holding tank ☐ Building
☐ Basin ☐ Lagoon
☐ Concrete Pad ☐ Other (Describe) _____**12.5** Sludge Treatment:☐ Anaerobic Digester ☐ Lagoon ☐ Composting
☐ Storage Tank ☐ Aerobic Digester ☐ Other (Attach description)
☐ Lime Stabilization ☐ Air or Heat Drying**12.6** Sludge Use or Disposal:☐ Land Application ☐ Surface Disposal (Sludge Disposal Lagoon, Sludge held for more than two years)
☐ Contract Hauler ☐ Hauled to Another treatment facility
☐ Incineration ☐ Sludge Retained in Wastewater treatment lagoon
☐ Solid waste landfill**12.7** Person responsible for hauling sludge to disposal facility:☒ By applicant ☐ By others (complete below)


NAME		EMAIL ADDRESS	
ADDRESS	CITY	STATE	ZIP CODE
CONTACT PERSON	TELEPHONE NUMBER WITH AREA CODE	PERMIT NO. MO-	

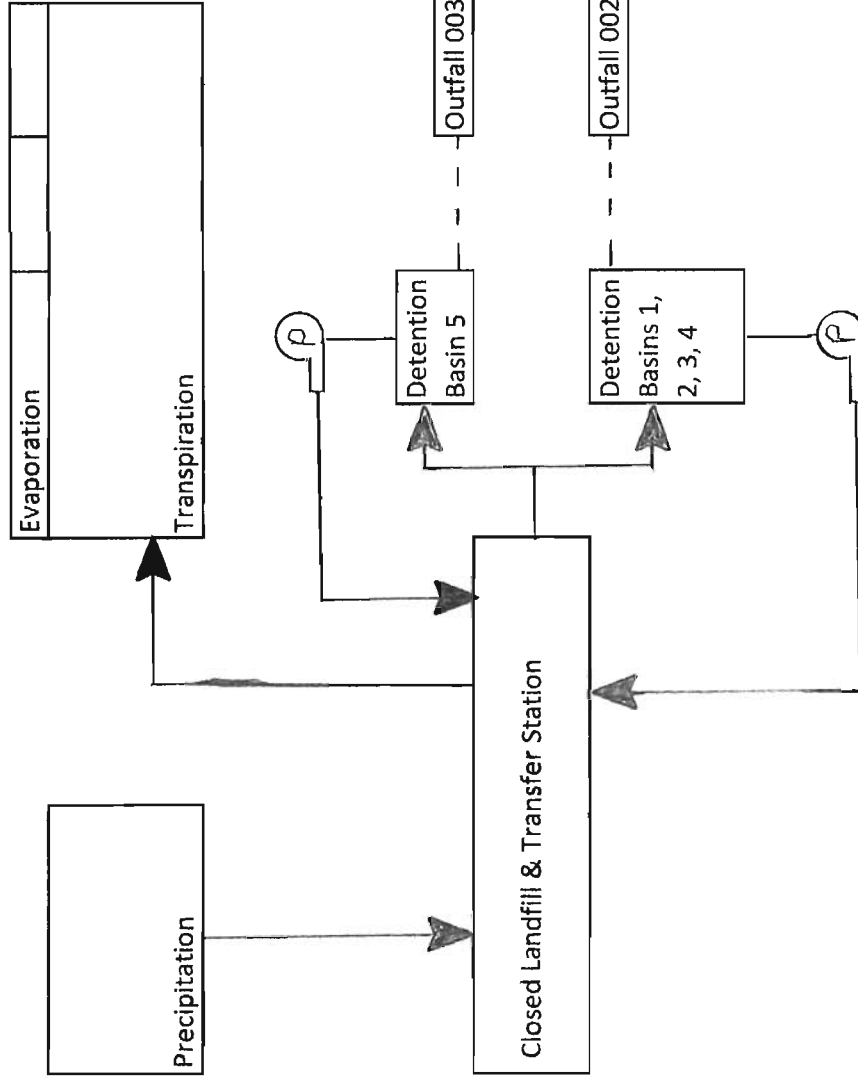
12.8 Sludge use or disposal facility☒ By applicant ☐ By others (Complete below.)

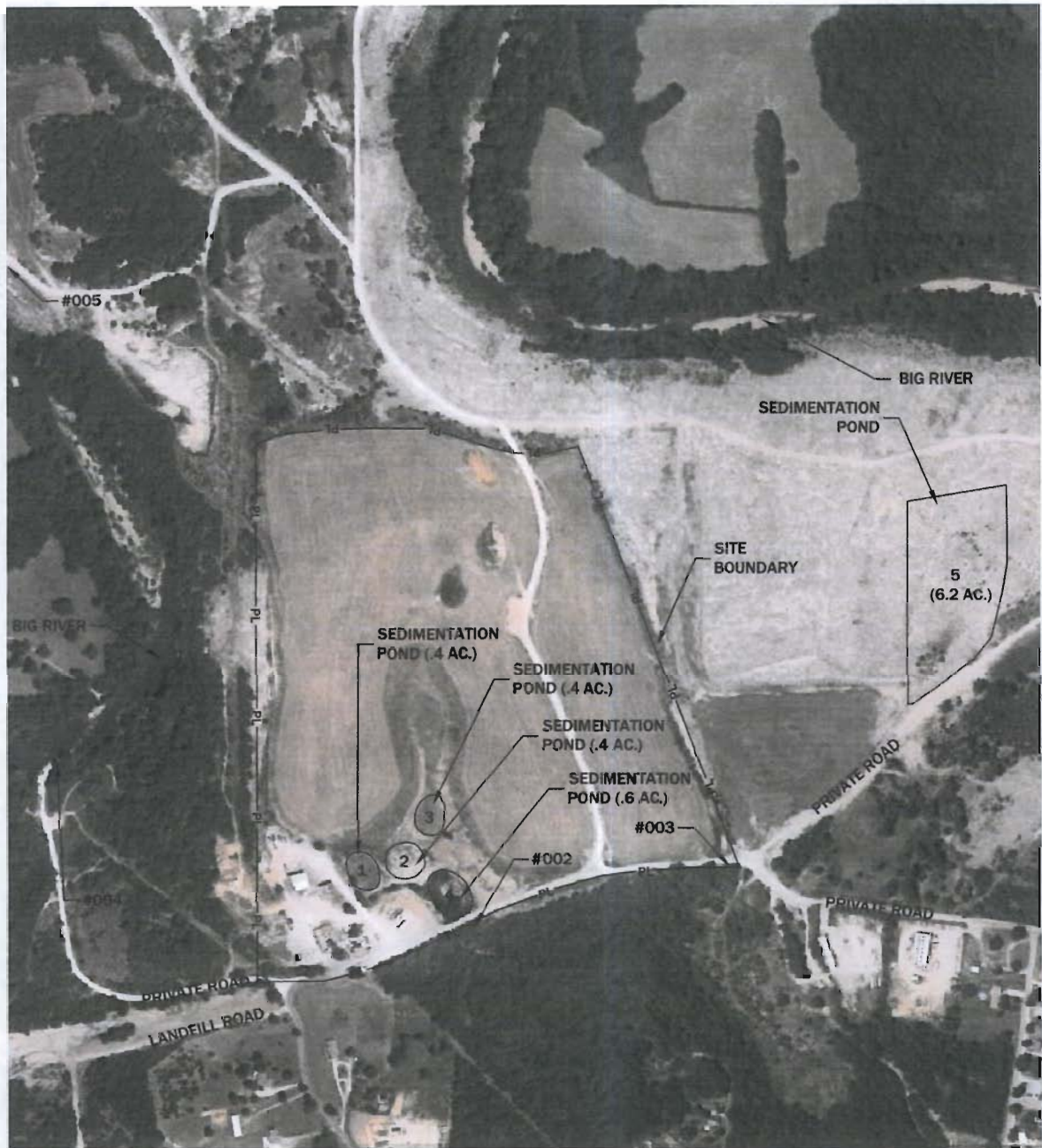
NAME		EMAIL ADDRESS	
ADDRESS	CITY	STATE	ZIP CODE
CONTACT PERSON	TELEPHONE NUMBER WITH AREA CODE	PERMIT NO. MO-	

12.9 Does the sludge or biosolids disposal comply with federal sludge regulations under 40 CFR 503?☒ Yes ☐ No (Explain)**13. CERTIFICATION**

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.

NAME (TYPE OR PRINT)	OFFICIAL TITLE	TELEPHONE NUMBER WITH AREA CODE
ALAN AUBREY HOWE	MANAGER	573-431-4768
SIGNATURE		DATE SIGNED
		2/18/2016





NOTE:
OUTFALL #001 - ELIMINATED FROM NPDES PERMIT

ST. FRANCOIS COUNTY TS/RC
200 LANDFILL ROAD
PARK HILLS, MO.
SE 1/4 NW 1/4 SECTION 36 T 37 N R 4 E

GREDELL Engineering Resources, Inc.

ENVIRONMENTAL ENGINEERING LAND - AIR - WATER

1505 East High Street
Jefferson City, Missouri

Telephone: (573) 659-9078
Facsimile: (573) 659-9079

FIGURE 1 - SITE PLAN

DATE 04/2013	SCALE 1"=600'	PROJECT NAME ST. FRANCOIS COUNTY TS/RC	REVISION
DRAWN WJA	APPROVED RLR	FILE NAME SITE PLAN.DWG	SHEET # 1 OF 1



MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM, WATER POLLUTION BRANCH
FORM C – APPLICATION FOR DISCHARGE PERMIT –
MANUFACTURING, COMMERCIAL, MINING,
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

St. Francois County Environmental Corporation

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

MO-0108774

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) SW 1/4 NW 1/4 SEC 36 T 37N R 4E St. Francois COUNTY

2.20 FOR EACH OUTFALL LIST THE NAME OF THE RECEIVING WATER

OUTFALL NUMBER (LIST)	RECEIVING WATER
002	Unnamed Tributary to Big River
003	Unnamed Tributary to Big River
004	Upstream Big River
005	Downstream Big River

2.30 BRIEFLY DESCRIBE THE NATURE OF YOUR BUSINESS

Closed Sanitary Landfill and Solid Waste Transfer Station - The NPDES site specific permit is for non-contact stormwater runoff only.

B. For each outfall, provide a description of 1. All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water and storm water runoff. 2. The average flow contributed by each operation. 3. The treatment received by the wastewater. Continue on additional sheets if necessary.

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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)

<div><input type="checkbox"/> YES (COMPLETE THE FOLLOWING TABLE)</div> <div><input type="checkbox"/> NO (GO TO SECTION 100)</div>								
1. OUTFALL NUMBER <i>(list)</i>	2. OPERATION(S) CONTRIBUTING FLOW <i>(list)</i>	3. FREQUENCY		4. FLOW				C. DURATION <i>(in days)</i>
				A. FLOW RATE <i>(in mgd)</i>		B. TOTAL VOLUME <i>(specify with units)</i>		
		A. DAYS PER WEEK <i>(specify average)</i>	B. MONTHS PER YEAR <i>(specify average)</i>	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			2. AFFECTED OUTFALLS (list outfall numbers)
A. QUANTITY PER DAY	B. UNITS OF MEASURE	C. OPERATION, PRODUCT, MATERIAL, ETC. (specify)	

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.

3.00 INTAKE AND EFFLUENT CHARACTERISTICS

A. & B. SEE INSTRUCTIONS BEFORE PROCEEDING – COMPLETE ONE TABLE FOR EACH OUTFALL – ANNOTATE THE OUTFALL NUMBER IN THE SPACE PROVIDED.
NOTE: TABLE 1 IS INCLUDED ON SEPARATE SHEETS NUMBERED FROM PAGE 6 TO PAGE 7.

C. USE THE SPACE BELOW TO LIST ANY OF THE POLLUTANTS LISTED IN PART B OF THE INSTRUCTIONS, WHICH YOU KNOW OR HAVE REASON TO BELIEVE IS DISCHARGED OR MAY BE DISCHARGED FROM ANY OUTFALL. FOR EVERY POLLUTANT YOU LIST, BRIEFLY DESCRIBE THE REASONS YOU BELIEVE IT TO BE PRESENT AND REPORT ANY ANALYTICAL DATA IN YOUR POSSESSION.

1. POLLUTANT	2. SOURCE	1. POLLUTANT	2. SOURCE
--------------	-----------	--------------	-----------

[illegible]

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)

☐ 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)

☐ 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)

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) Alan AuBuchon, Manager	TELEPHONE NUMBER WITH AREA CODE (573) 431-4768
SIGNATURE (SEE INSTRUCTIONS)	DATE SIGNED

PLEASE PRINT OR TYPE. You may report some or all of this information on separate sheet
(Use the same format) instead of completing these pages.
SEE INSTRUCTIONS

FORM C
TABLE 1 FOR 3.00 ITEM A AND B

INTAKE AND EFFLUENT CHARACTERISTICS												OUTFALL NO. 002
PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.												
1. POLLUTANT	2. EFFLUENT		3. UNITS (specify if blank)	D. NO. OF ANALYSES	C. LONG TERM AVRG. VALUE (if available)		A. CONCENTRATION	B. MASS	4. INTAKE (optional)		B. NO. OF ANALYSES	
	A. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS			B. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	(2) MASS			A. LONG TERM AVRG. VALUE (1) CONCENTRATION	(2) MASS		
A. Biochemical Oxygen Demand (BOD)	2	7		1			mg/L	Pounds				
B. Chemical Oxygen Demand (COD)	60	216		1			mg/L	Pounds				
C. Total organic Carbon (TOC)												
D. Total Suspended Solids (TSS)	14	50		1			mg/L	Pounds				
E. Ammonia (as N)	0.05	0.2										
F. Flow	VALUE 432,000					VALUE			VALUE			
G. Temperature (winter)	VALUE 1.28					VALUE	°C		VALUE			
H. Temperature (summer)	VALUE					VALUE	°C		VALUE			
I. pH	MINIMUM 7.5	MAXIMUM				MINIMUM	STANDARD UNITS					

PART B - Mark "X" in column 2A for each pollutant you know or have reason to believe is present. Mark "X" in column 2B for each pollutant you believe to be absent. If you mark column 2A for any pollutant, you must provide the results for at least one analysis for that pollutant. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. EFFLUENT				4. UNITS		5. INTAKE (optional)		B. NO. OF ANALYSES	
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE (1) CONCENTRATION	(2) MASS	B. MAXIMUM 30 DAY VALUE (if available) (1) CONCENTRATION	(2) MASS	C. LONG TERM AVRG. VALUE (if available) (1) CONCENTRATION	(2) MASS	D. NO. OF ANALYSES	A. CONCENTRATION		B. MASS
CONVENTIONAL AND NONCONVENTIONAL POLLUTANTS												
A. Bromide (24959-67-9)		X										
B. Chlorine, Total Residual		X										
C. Color		X										
D. Fecal Coliform		X										
E. Fluoride (16984-48-8)	X		0.062	0.22					1	mg/L	Pounds	
F. Nitrate - Nitrate (as N)	X		0.034	0.12					1	mg/L	Pounds	

1. POLLUTANT AND CAS NUMBER <i>(if available)</i>	2. MARK "X"		3. EFFLUENT						4. UNITS		5. INTAKE <i>(optional)</i>			
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE <i>(if available)</i>		C. LONG TERM AVRG. VALUE <i>(if available)</i>		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
G. Nitrogen, Total Organic <i>(as N)</i>		X												
H. Oil and Grease		X												
I. Phosphorus <i>(as P)</i> , Total (7723-14-0)	X		0.207	0.75					1	mg/L	Pounds			
J. Sulfate <i>(as SO₄⁻)</i> (14808-79-8)	X		3.47	12.5					1	mg/L	Pounds			
K. Sulfide <i>(as S)</i>		X												
L. Sulfite <i>(as SO₃⁻)</i> (14265-45-3)		X												
M. Surfactants		X												
N. Aluminum, Total (7429-90-5)		X												
O. Barium, Total (7440-39-3)	X		0.028	0.10					1	mg/L	Pounds			
P. Boron, Total (7440-42-8)		X												
Q. Cobalt, Total (7440-48-4)		X												
R. Iron, Total (7439-89-6)	X		2.23	8.03					1	mg/L	Pounds			
S. Magnesium, Total (7439-95-4)	X		6.42	23.13					1	mg/L	Pounds			
T. Molybdenum, Total (7439-98-7)		X												
U. Manganese, Total (7439-96-5)	X		0.032	0.12					1	mg/L	Pounds			
V. Tin, Total (7440-31-5)		X												
W. Titanium, Total (7440-32-6)		X												

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. EFFLUENT						4. UNITS		5. INTAKE (optional)			
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (if available)		C. LONG TERM AVRG. VALUE (if available)		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS						
METALS, AND TOTAL PHENOLS														
1M. Antimony, Total (7440-36-9)		X												
2M. Arsenic, Total (7440-38-2)		X												
3M. Beryllium, Total (7440-41-7)		X												
4M. Cadmium, Total (7440-43-9)		X												
5M. Chromium III (16065-83-1)		X												
6M. Chromium VI (18540-29-9)		X												
7M. Copper, Total (7440-50-8)	X		0.002	0.01					1	mg/L	Pounds			
8M. Lead, Total (7439-92-1)	X		0.035	0.13					1	mg/L	Pounds			
9M. Mercury, Total (7439-97-6)		X												
10M. Nickel, Total (7440-02-0)		X												
11M. Selenium, Total (7782-49-2)		X												
12M. Silver, Total (7440-22-4)		X												
13M. Thallium, Total (7440-28-0)		X												
14M. Zinc, Total (7440-66-6)		X												
15M. Cyanide, Amenable to Chlorination		X												
16M. Phenols, Total		X												
RADIOACTIVITY														
(1) Alpha Total		X												
(2) Beta Total		X												
(3) Radium Total		X												
(4) Radium 226 Total		X												



MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM, WATER POLLUTION BRANCH
FORM C – APPLICATION FOR DISCHARGE PERMIT –
MANUFACTURING, COMMERCIAL, MINING,
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

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St. Francois County Environmental Corporation

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MO-0108774

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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 _____

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OUTFALL NUMBER (LIST) SW 1/4 NW 1/4 SEC 36 T 37N R 4E St. Francois COUNTY

2.20 FOR EACH OUTFALL LIST THE NAME OF THE RECEIVING WATER

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MQ 780-1514 (06-13) PAGE 2

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 <i>(list)</i>	2. OPERATION(S) CONTRIBUTING FLOW <i>(list)</i>	3. FREQUENCY		4. FLOW				C. DURATION <i>(in days)</i>
				A. FLOW RATE <i>(in mgd)</i>		B. TOTAL VOLUME <i>(specify with units)</i>		
		A. DAYS PER WEEK <i>(specify average)</i>	B. MONTHS PER YEAR <i>(specify average)</i>	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			2. AFFECTED OUTFALLS (list outfall numbers)
A. QUANTITY PER DAY	B. UNITS OF MEASURE	C. OPERATION, PRODUCT, MATERIAL, ETC. (specify)	

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)

☐ 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)

☐ 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 <i>(area code and number)</i>	D. POLLUTANTS ANALYZED <i>(list)</i>

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) Alan AuBuchon, Manager	TELEPHONE NUMBER WITH AREA CODE (573) 431-4768
SIGNATURE (SEE INSTRUCTIONS) 	DATE SIGNED 2/18/2016

PLEASE PRINT OR TYPE. You may report some or all of this information on separate sheet
(Use the same format) instead of completing these pages.
SEE INSTRUCTIONS

FORM C
TABLE 1 FOR 3.00 ITEM A AND B

INTAKE AND EFFLUENT CHARACTERISTICS										OUTFALL NO.
										003

PART A -- You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.										
1. POLLUTANT	2. EFFLUENT				D. NO. OF ANALYSES	3. UNITS (specify if blank)		4. INTAKE (optional)		
	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (if available)			A. CONCENTRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO. OF ANALYSES
	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
A. Biochemical Oxygen Demand (BOD)	2	4			1	mg/L	Pounds			
B. Chemical Oxygen Demand (COD)	60	108			1	mg/L	Pounds			
C. Total organic Carbon (TOC)										
D. Total Suspended Solids (TSS)	7	13			1	mg/L	Pounds			
E. Ammonia (as N)	0.05	0.1								
F. Flow	VALUE 216,000		VALUE					VALUE		
G. Temperature (winter)	VALUE 1.39		VALUE					VALUE		
H. Temperature (summer)	VALUE		VALUE					VALUE		
I. pH	MINIMUM 7.41	MAXIMUM	MINIMUM	MAXIMUM		STANDARD UNITS				

PART B - Mark "X" in column 2A for each pollutant you know or have reason to believe is present. Mark "X" in column 2B for each pollutant you believe to be absent. If you mark column 2A for any pollutant, you must provide the results for at least one analysis for that pollutant. Complete one table for each outfall. See the instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. EFFLUENT						4. UNITS			5. INTAKE (optional)		
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (if available)		C. LONG TERM AVRG. VALUE (if available)		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS						
												(1) CONCENTRATION	(2) MASS	
CONVENTIONAL AND NONCONVENTIONAL POLLUTANTS														
A. Bromide (24959-67-9)		X												
B. Chlorine, Total Residual		X												
C. Color		X												
D. Fecal Coliform		X												
E. Fluoride (16984-48-8)		X												
F. Nitrate - Nitrate (as N)	X		0.034	0.06					1	mg/L	Pounds			

1. POLLUTANT AND CAS NUMBER <i>(if available)</i>	2. MARK "X"		3. EFFLUENT						4. UNITS		5. INTAKE <i>(optional)</i>			
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE <i>(if available)</i>		C. LONG TERM AVRG. VALUE <i>(if available)</i>		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
G. Nitrogen, Total Organic <i>(as N)</i>		X												
H. Oil and Grease		X												
I. Phosphorus <i>(as P)</i> , Total (7723-14-0)	X		0.177	0.32					1	mg/L	Pounds			
J. Sulfate <i>(as SO₄⁻)</i> (14808-79-8)	X		9.13	16.45					1	mg/L	Pounds			
K. Sulfide <i>(as S)</i>		X												
L. Sulfite <i>(as SO₃⁻)</i> (14265-45-3)		X												
M. Surfactants		X												
N. Aluminum, Total (7429-90-5)		X												
O. Barium, Total (7440-39-3)	X		0.023	0.04					1	mg/L	Pounds			
P. Boron, Total (7440-42-8)		X												
Q. Cobalt, Total (7440-48-4)		X												
R. Iron, Total (7439-89-6)	X		1.15	2.07					1	mg/L	Pounds			
S. Magnesium, Total (7439-95-4)	X		9.48	17.08					1	mg/L	Pounds			
T. Molybdenum, Total (7439-98-7)		X												
U. Manganese, Total (7439-96-5)	X		0.032	.06					1	mg/L	Pounds			
V. Tin, Total (7440-31-5)		X												
W. Titanium, Total (7440-32-6)		X												

1. POLLUTANT AND CAS NUMBER <i>(if available)</i>	2. MARK "X"		3. EFFLUENT				4. UNITS		5. INTAKE <i>(optional)</i>			
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE <i>(if available)</i>		C. LONG TERM AVRG. VALUE <i>(if available)</i>		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS	
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				
METALS, AND TOTAL PHENOLS												
1M. Antimony, Total (7440-36-9)		X										
2M. Arsenic, Total (7440-38-2)		X										
3M. Beryllium, Total (7440-41-7)		X										
4M. Cadmium, Total (7440-43-9)		X										
5M. Chromium III (16065-83-1)		X										
6M. Chromium VI (18540-29-9)		X										
7M. Copper, Total (7440-50-8)	X		0.006	0.01					1	mg/L	Pounds	
8M. Lead, Total (7439-92-1)	X		0.044	0.08					1	mg/L	Pounds	
9M. Mercury, Total (7439-97-6)		X										
10M. Nickel, Total (7440-02-0)		X										
11M. Selenium, Total (7782-49-2)		X										
12M. Silver, Total (7440-22-4)		X										
13M. Thallium, Total (7440-28-0)		X										
14M. Zinc, Total (7440-66-6)	X		0.026	0.05					1	mg/L	Pounds	
15M. Cyanide, Amenable to Chlorination		X										
16M. Phenols, Total		X										
RADIOACTIVITY												
(1) Alpha Total		X										
(2) Beta Total		X										
(3) Radium Total		X										
(4) Radium 226 Total		X										



MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM, WATER POLLUTION BRANCH
FORM C – APPLICATION FOR DISCHARGE PERMIT –
MANUFACTURING, COMMERCIAL, MINING,
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

St. Francois County Environmental Corporation

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

MO-0108774

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) SW 1/4 NW 1/4 SEC 36 T 37N R 4E St. Francois COUNTY

2.20 FOR EACH OUTFALL LIST THE NAME OF THE RECEIVING WATER

OUTFALL NUMBER (LIST)	RECEIVING WATER
002	Unnamed Tributary to Big River
003	Unnamed Tributary to Big River
004	Upstream Big River
005	Downstream Big River

2.30 BRIEFLY DESCRIBE THE NATURE OF YOUR BUSINESS

Closed Sanitary Landfill and Solid Waste Transfer Station - The NPDES site specific permit is for non-contact stormwater runoff only.

B. For each outfall, provide a description of 1. All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water and storm water runoff. 2. The average flow contributed by each operation. 3. The treatment received by the wastewater. Continue on additional sheets if necessary.

[illegible]

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 <i>(list)</i>	2. OPERATION(S) CONTRIBUTING FLOW <i>(list)</i>	3. FREQUENCY		4. FLOW				C. DURATION <i>(in days)</i>
				A. FLOW RATE <i>(in mgd)</i>		B. TOTAL VOLUME <i>(specify with units)</i>		
		A. DAYS PER WEEK <i>(specify average)</i>	B. MONTHS PER YEAR <i>(specify average)</i>	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			2. AFFECTED OUTFALLS (list outfall numbers)
A. QUANTITY PER DAY	B. UNITS OF MEASURE	C. OPERATION, PRODUCT, MATERIAL, ETC. (specify)	

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.

[illegible]

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)

☐ 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)

☐ 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 <i>(area code and number)</i>	D. POLLUTANTS ANALYZED <i>(list)</i>

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) Alan AuBuchon, Manager	TELEPHONE NUMBER WITH AREA CODE (573) 431-4768
SIGNATURE (SEE INSTRUCTIONS) 	DATE SIGNED 2/18/2016

PLEASE PRINT OR TYPE. You may report some or all of this information on separate sheet
(Use the same format) instead of completing these pages.
SEE INSTRUCTIONS

FORM C
TABLE 1 FOR 3.00 ITEM A AND B

INTAKE AND EFFLUENT CHARACTERISTICS												OUTFALL NO. 004	
PART A - You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.													
1. POLLUTANT	2. EFFLUENT				3. UNITS (specify if blank)	D. NO. OF ANALYSES	4. INTAKE (optional)						
	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (if available)				C. LONG TERM AVRG. VALUE (if available)		A. LONG TERM AVRG. VALUE		B. NO. OF ANALYSES		
	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS			
A. Biochemical Oxygen Demand (BOD)													
B. Chemical Oxygen Demand (COD)													
C. Total organic Carbon (TOC)													
D. Total Suspended Solids (TSS)	74	9081			mg/L	1				Pounds			
E. Ammonia (as N)													
F. Flow	VALUE 14,713,920		VALUE							VALUE			
G. Temperature (winter)	VALUE 2.5		VALUE							VALUE			
H. Temperature (summer)	VALUE		VALUE							VALUE			
I. pH	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM						STANDARD UNITS			
PART B - Mark "X" in column 2A for each pollutant you know or have reason to believe is present. Mark "X" in column 2B for each pollutant you believe to be absent. If you mark column 2A for any pollutant, you must provide the results for at least one analysis for that pollutant. Complete one table for each outfall. See the instructions for additional details and requirements.													
1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. EFFLUENT				4. UNITS				5. INTAKE (optional)		
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE	B. MAXIMUM 30 DAY VALUE (if available)	C. LONG TERM AVRG. VALUE (if available)	D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS	A. LONG TERM AVRG. VALUE	B. NO. OF ANALYSES			
	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS			
CONVENTIONAL AND NONCONVENTIONAL POLLUTANTS													
A. Bromide (24959-57-9)		X											
B. Chlorine, Total Residual		X											
C. Color		X											
D. Fecal Coliform		X											
E. Fluoride (16984-48-8)		X											
F. Nitrate - Nitrate (as N)		X											

1. POLLUTANT AND CAS NUMBER <i>(if available)</i>	2. MARK "X"		3. EFFLUENT								4. UNITS		5. INTAKE <i>(optional)</i>		
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE <i>(if available)</i>		C. LONG TERM AVRG. VALUE <i>(if available)</i>		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO. OF ANALYSES	
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS		
G. Nitrogen, Total Organic <i>(as N)</i>		X													
H. Oil and Grease		X													
I. Phosphorus <i>(as P)</i> , Total (7723-14-0)		X													
J. Sulfate <i>(as SO⁴)</i> (14808-79-8)		X													
K. Sulfide <i>(as S)</i>		X													
L. Sulfite <i>(as SO³)</i> (14265-45-3)		X													
M. Surfactants		X													
N. Aluminum, Total (7429-90-5)		X													
O. Barium, Total (7440-39-3)		X													
P. Boron, Total (7440-42-8)		X													
Q. Cobalt, Total (7440-48-4)		X													
R. Iron, Total (7439-89-6)		X													
S. Magnesium, Total (7439-95-4)	X		14.8	1816.2					1	mg/L	Pounds				
T. Molybdenum, Total (7439-98-7)		X													
U. Manganese, Total (7439-96-5)		X													
V. Tin, Total (7440-31-5)		X													
W. Titanium, Total (7440-32-6)		X													

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. EFFLUENT						4. UNITS		5. INTAKE (optional)			
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (if available)		C. LONG TERM AVRG. VALUE (if available)		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
METALS, AND TOTAL PHENOLS														
1M. Antimony, Total (7440-36-9)		X												
2M. Arsenic, Total (7440-38-2)		X												
3M. Beryllium, Total (7440-41-7)		X												
4M. Cadmium, Total (7440-43-9)		X												
5M. Chromium III (16065-83-1)		X												
6M. Chromium VI (18540-29-9)		X												
7M. Copper, Total (7440-50-8)		X												
8M. Lead, Total (7439-92-1)	X		0.34	41.72					1	mg/L	Pounds			
9M. Mercury, Total (7439-97-6)		X												
10M. Nickel, Total (7440-02-0)		X												
11M. Selenium, Total (7782-49-2)		X												
12M. Silver, Total (7440-22-4)		X												
13M. Thallium, Total (7440-28-0)		X												
14M. Zinc, Total (7440-66-6)		X												
15M. Cyanide, Amenable to Chlorination		X												
16M. Phenols, Total		X												
RADIOACTIVITY														
(1) Alpha Total		X												
(2) Beta Total		X												
(3) Radium Total		X												
(4) Radium 226 Total		X												



MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM, WATER POLLUTION BRANCH
FORM C – APPLICATION FOR DISCHARGE PERMIT –
MANUFACTURING, COMMERCIAL, MINING,
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

St. Francois County Environmental Corporation

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

MO-0108774

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) SW NW 36 37N 4E St. Francois COUNTY
1/4 1/4 SEC _____ T _____ R _____

2.20 FOR EACH OUTFALL LIST THE NAME OF THE RECEIVING WATER

OUTFALL NUMBER (LIST)	RECEIVING WATER
002	Unnamed Tributary to Big River
003	Unnamed Tributary to Big River
004	Upstream Big River
005	Downstream Big River

2.30 BRIEFLY DESCRIBE THE NATURE OF YOUR BUSINESS

Closed Sanitary Landfill and Solid Waste Transfer Station - The NPDES site specific permit is for non-contact stormwater runoff only.

B. For each outfall, provide a description of 1. All operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water and storm water runoff. 2. The average flow contributed by each operation. 3. The treatment received by the wastewater. Continue on additional sheets if necessary.

PAGE 2

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 <i>(list)</i>	2. OPERATION(S) CONTRIBUTING FLOW <i>(list)</i>	3. FREQUENCY		4. FLOW				C. DURATION <i>(in days)</i>
				A. FLOW RATE <i>(in mgd)</i>		B. TOTAL VOLUME <i>(specify with units)</i>		
		A. DAYS PER WEEK <i>(specify average)</i>	B. MONTHS PER YEAR <i>(specify average)</i>	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			2. AFFECTED OUTFALLS (list outfall numbers)
A. QUANTITY PER DAY	B. UNITS OF MEASURE	C. OPERATION, PRODUCT, MATERIAL, ETC. (specify)	

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.

[illegible]

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?

☒ NO (GO TO 3 20)

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

☒ NO (GO TO 3.30)

A. NAME	B. ADDRESS	C. TELEPHONE <i>(area code and number)</i>	D. POLLUTANTS ANALYZED <i>(list)</i>

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.

Alan AuBuchon, Manager

(573) 431-4768

DATE SIGNED

2/18/2014

PLEASE PRINT OR TYPE. You may report some or all of this information on separate sheet
(Use the same format) instead of completing these pages.
SEE INSTRUCTIONS

FORM C
TABLE 1 FOR 3.00 ITEM A AND B

INTAKE AND EFFLUENT CHARACTERISTICS												OUTFALL NO. 5		
PART A – You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.														
1. POLLUTANT	2. EFFLUENT						D. NO. OF ANALYSES	3. UNITS (specify if blank)		4. INTAKE (optional)				
	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (if available)		C. LONG TERM AVRG. VALUE (if available)			A. CONCENTRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO. OF ANALYSES		
	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS			
A. Biochemical Oxygen Demand (BOD)														
B. Chemical Oxygen Demand (COD)														
C. Total organic Carbon (TOC)														
D. Total Suspended Solids (TSS)	51	6258					1	mg/L	Pounds					
E. Ammonia (as N)														
F. Flow	VALUE 14,713,920		VALUE		VALUE					VALUE				
G. Temperature (winter)	VALUE 3.5		VALUE		VALUE				°C	VALUE				
H. Temperature (summer)	VALUE		VALUE		VALUE				°C	VALUE				
I. pH	MINIMUM	MAXIMUM	MINIMUM	MAXIMUM				STANDARD UNITS						
PART B – Mark "X" in column 2A for each pollutant you know or have reason to believe is present. Mark "X" in column 2B for each pollutant you believe to be absent. If you mark column 2A for any pollutant, you must provide the results for at least one analysis for that pollutant. Complete one table for each outfall. See the instructions for additional details and requirements.														
1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. EFFLUENT						D. NO. OF ANALYSES	4. UNITS		5. INTAKE (optional)		
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (if available)		C. LONG TERM AVRG. VALUE (if available)			A. CONCENTRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
CONVENTIONAL AND NONCONVENTIONAL POLLUTANTS														
A. Bromide (24959-67-9)		X												
B. Chlorine, Total Residual		X												
C. Color		X												
D. Fecal Coliform		X												
E. Fluoride (18984-48-8)		X												
F. Nitrate - Nitrate (as N)		X												

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (if available)		C. LONG TERM AVRG. VALUE (if available)		D. NO. OF ANALYSES	A. CONCEN- TRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
G. Nitrogen, Total Organic (as N)		X												
H. Oil and Grease		X												
I. Phosphorus (as P), Total (7723-14-0)		X												
J. Sulfate (as SO ⁴) (14808-79-8)		X												
K. Sulfide (as S)		X												
L. Sulfite (as SO ³) (14265-45-3)		X												
M. Surfactants		X												
N. Aluminum, Total (7429-90-5)		X												
O. Barium, Total (7440-39-3)		X												
P. Boron, Total (7440-42-8)		X												
Q. Cobalt, Total (7440-48-4)		X												
R. Iron, Total (7439-89-6)		X												
S. Magnesium, Total (7439-95-4)	X		8.4	1030.8					1	mg/L	Pounds			
T. Molybdenum, Total (7439-98-7)		X												
U. Manganese, Total (7439-96-5)		X												
V. Tin, Total (7440-31-5)		X												
W. Titanium, Total (7440-32-6)		X												

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. EFFLUENT						4. UNITS		5. INTAKE (optional)			
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (if available)		C. LONG TERM AVRG. VALUE (if available)		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
METALS, AND TOTAL PHENOLS														
1M. Antimony, Total (7440-36-9)		X												
2M. Arsenic, Total (7440-38-2)		X												
3M. Beryllium, Total (7440-41-7)		X												
4M. Cadmium, Total (7440-43-9)		X												
5M. Chromium III (16065-83-1)		X												
6M. Chromium VI (18540-29-9)		X												
7M. Copper, Total (7440-50-8)		X												
8M. Lead, Total (7439-92-1)	X		0.45	55.22					1	mg/L	Pounds			
9M. Mercury, Total (7439-97-6)		X												
10M. Nickel, Total (7440-02-0)		X												
11M. Selenium, Total (7782-49-2)		X												
12M. Silver, Total (7440-22-4)		X												
13M. Thallium, Total (7440-28-0)		X												
14M. Zinc, Total (7440-66-6)		X												
15M. Cyanide, Amenable to Chlorination		X												
16M. Phenols, Total		X												
RADIOACTIVITY														
(1) Alpha Total		X												
(2) Beta Total		X												
(3) Radium Total		X												
(4) Radium 226 Total		X												



MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM, WATER POLLUTION BRANCH
**FORM D – APPLICATION FOR DISCHARGE PERMIT –
PRIMARY INDUSTRIES**

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

St. Francois County Environmental Corporation

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

MO - 0108774

This form is to be filled out in addition to forms A and C "Application for Discharge Permit" for the Industries listed below:

INDUSTRY CATEGORY

Adhesives and sealants	Ore mining
Aluminum forming	Organic chemicals manufacturing
Auto and other laundries	Paint and ink formulation
Battery manufacturing	Pesticides
Coal mining	Petroleum refining
Coil coating	Pharmaceutical preparations
Copper forming	Photographic equipment and supplies
Electric and electronic compounds	Plastic and synthetic materials manufacturing
Electroplating	Plastic processing
Explosives manufacturing	Porcelain enameling
Foundries	Printing and publishing
Gum and wood chemicals	Pulp and paperboard mills
Inorganic chemicals manufacturing	Rubber processing
Iron and steel manufacturing	Soap and detergent manufacturing
Leather tanning and finishing	Steam electric power plants
Landfill	Textile mills
Mechanical products manufacturing	Timber products processing
Nonferrous metals manufacturing	

APPLICATION FOR DISCHARGE PERMIT FORM D – PRIMARY INDUSTRIES

TABLE II	
NPDES # (IF ASSIGNED)	OUTFALL NUMBER
MO-0108774	002

1.30 If you are a primary industry and this outfall contains process wastewater, refer to Table A in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-A for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. Mark "X" in column 2-B for each pollutant you know or have reason to believe is present. Mark "X" in column 2-C for each pollutant you believe to be absent. If you mark either columns 2-A or 2-B for any pollutant, you must provide the results of at least one analysis for that pollutant. Note that there are seven pages to this part, please review each carefully. Complete one table (*all seven pages*) for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"	3. EFFLUENT			4. UNITS			5. INTAKE (optional)		
		A. TEST-ING REQUIRED	B. BELIEVE PRESENT	C. BELIEVE ABSENT	A. MAXIMUM DAILY VALUE	B. MAXIMUM 30 DAY VALUE (if available)		C. LONG TERM AVRG. VALUE (if available)		D. NO. OF ANALYSES
					(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS
METALS, AND TOTAL PHENOLS										
1M. Antimony, Total (7440-36-9)	—		<input type="checkbox"/>	<input checked="" type="checkbox"/>						
2M. Arsenic, Total (7440-38-2)	—		<input type="checkbox"/>	<input checked="" type="checkbox"/>						
3M. Beryllium, Total (7440-41-7)			<input type="checkbox"/>	<input checked="" type="checkbox"/>						
4M. Cadmium, Total (7440-43-9)			<input type="checkbox"/>	<input checked="" type="checkbox"/>						
5M. Chromium III (16065-83-1)			<input type="checkbox"/>	<input checked="" type="checkbox"/>						
6M. Chromium VI (18540-29-9)			<input type="checkbox"/>	<input checked="" type="checkbox"/>						
7M. Copper, Total (7440-50-8)			<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.002	0.05			mg/l	pounds
8M. Lead, Total (7439-92-1)			<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.035	0.94			mg/l	pounds
9M. Magnesium Total (7439-95-4)			<input type="checkbox"/>	<input checked="" type="checkbox"/>						
10M. Mercury, Total (7439-97-6)			<input type="checkbox"/>	<input checked="" type="checkbox"/>						
11M. Molybdenum Total (7439-98-7)	—		<input type="checkbox"/>	<input checked="" type="checkbox"/>						
12M. Nickel, Total (7440-02-0)	—		<input type="checkbox"/>	<input checked="" type="checkbox"/>						
13M. Selenium, Total (7782-49-2)	—		<input type="checkbox"/>	<input checked="" type="checkbox"/>						
14M. Silver, Total (7440-22-4)	—		<input type="checkbox"/>	<input checked="" type="checkbox"/>						
15M. Thallium, Total (7440-28-0)	—		<input type="checkbox"/>	<input checked="" type="checkbox"/>						
16M. Tin Total (7440-31-5)	—		<input type="checkbox"/>	<input checked="" type="checkbox"/>						
17M. Titanium Total (7440-32-6)	—		<input type="checkbox"/>	<input checked="" type="checkbox"/>						
18M. Zinc, Total (7440-66-6)	—		<input type="checkbox"/>	<input checked="" type="checkbox"/>						

[illegible]

DESCRIBE RESULTS			
2,3,7,8 – Tetra – chlorodibenzo-P-Dioxin (1764-01-6)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

[illegible]

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"			3. EFFLUENT						4. UNITS		5. INTAKE (optional)		
	A. TESTING RE-REQUIRED	B. BELIEVED PRESENT	C. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (if available)		C. LONG TERM AVRG. VALUE (if available)						
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	A. LONG TERM AVRG. VALUE	(1) CONCENTRATION	(2) MASS	B. NO OF ANALYSES	
GC/MS FRACTION – VOLATILE COMPOUNDS (continued)														
22V. Methylene Chloride (75-09-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
23V. 1,1,2,2 – Tetra- chloroethane (79-34-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
24V. Tetrachloroethylene (127-18-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
25V. Toluene (108-88-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
26V. 1,2 – Trans Dichloroethylene (156-60-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
27V. 1,1,1 – Tri- chloroethane (71-55-6)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
28V. 1,1,2 – Tri- chloroethane (79-00-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
29V. Trichloro – ethylene (79-01-6)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
30V. Trichloro – fluoromethane (75-69-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
31V. Vinyl Chloride (75-01-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											

GC/MS FRACTION – ACID COMPOUNDS										
1A. 2 – Chlorophenol (95-57-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>							
2A. 2,4 – Dichloro – phenol (120-83-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>							
3A. 2,4 – Dimethyl – phenol (105-67-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>							
4A. 4,6 – Dinitro - O- Cresol (534-52-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>							
5A. 2,4 – Dinitro – phenol (51-28-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>							
6A. 2-Nitrophenol (88-75-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>							
7A. 4-Nitrophenol (100-02-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>							
8A. P – Chloro – M Cresol (59-50-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>							
9A. Pentachloro – phenol (87-86-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>							
10A. Phenol (108-952)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>							
11A. 2,4,6 – Trichloro-phenol (88-06-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>							
12A. 2 - methyl – 4,6 dinitrophenol (534-52-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>							

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"			3. EFFLUENT				4. UNITS				5. INTAKE (optional)				
	A. TESTING REQUIRED	B. BELIEVED PRESENT	C. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (if available)		C. LONG TERM AVRG. VALUE (if available)		D. NO. OF ANALYSES	A. CONCEN- TRATION	B. MASS	A. LONG TERM AVRG. VALUE	(1) CONCENTRATION	(2) MASS	B. NO OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS							
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS																
1B. Acenaphthene (83-32-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>													
2B. Acenaphthylene (208-96-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>													
3B. Anthracene (120-12-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>													
4B. Benzidine (92-87-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>													
5B. Benzo (a) Anthracene (56-55-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>													
6B. Benzo (a) Pyrene (50-32-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>													
7B. 3,4 – Benzofluoranthene (205-99-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>													
8B. Benzo (ghi) Perylene (191-24-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>													
9B. Benzo (k) Fluoranthene (207-08-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>													
10B. Bis (2-Chloroethoxy) Methane (111-91-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>													
11B. Bis (2-Chloroethyl) Ether (111-44-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>													
12B. Bis (2- Chloroisopropyl) Ether (39638-32-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>													
13B. Bis (2-Ethylhexyl) Phthalate (117-81-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>													
14B. 4-Bromophenyl Phenyl Ether (101-55-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>													
15B. Butyl Benzyl Phthalate (85-68-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>													
16B. 2- Chloronaphthalene (91-58-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>													
17B. 4-Chlorophenyl Phenyl Ether (7005-72-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>													
18B. Chrysene (218-01-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>													
19B. Dibenzo (a,h) Anthracene (53-70-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>													
20B. 1,2 – Dichlorobenzene (95-50-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>													
21B. 1,3 – Dichlorobenzene (541-73-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>													

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"			3. EFFLUENT				D. NO. OF ANALYSES	4. UNITS		5. INTAKE (optional)			
	A. TESTING REQUIRED	B. BELIEVED PRESENT	C. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (if available)		C. LONG TERM AVRG. VALUE (if available)		A. CONCENTRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS			(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)														
22B. 1, 4-Dichlorobenzene (106-46-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
23B. 3, 3'-Dichlorobenzidine (91-94-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
24B. Diethyl Phthalate (84-66-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
25B. Dimethyl Phthalate (131-11-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
26B. Di-N-butyl Phthalate (84-74-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
27B. 2,4-Dinitrotoluene (121-14-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
28B. 2,6-Dinitrotoluene (606-20-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
29B. Di-N-Octylphthalate (117-84-0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
30B. 1,2-Diphenylhydrazine (as Azobenzene) (122-66-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
31B. Fluoranthene (206-44-0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
32B. Fluorene (86-73-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
33B. Hexachlorobenzene (87-68-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
34B. Hexachlorobutadiene (87-68-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
35B. Hexachlorocyclopentadiene (77-47-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
36B. Hexachloroethane (67-72-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
37B. Indeno (1,2,3-c-d) Pyrene (193-39-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
38B. Isophorone (78-59-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
39B. Naphthalene (91-20-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
40B. Nitrobenzene (98-95-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
41B. N-Nitrosodimethylamine (62-75-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (if available)		2. MARK "X"			3. EFFLUENT						4. UNITS		5. INTAKE (optional)				
		A. YES-ING REQUIRED	B. BELIEVED PRESENT	C. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (if available)		C. LONG TERM AVRG. VALUE (if available)		D. NO. OF ANALYSES	A. CONCEN- TRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO OF ANALYSES	
					(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS		
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS (continued)																	
42B. N-Nitroso N-Propylamine (821-64-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>														
43B. N-Nitro- sodiphenylamine (86-30- 6)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>														
44B. Phenanthrene (85-01-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>														
45B. Pyrene (129-00-0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>														
46B. 1,2,4-Tri chlorobenzene (120-82-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>														
GC/MS FRACTION - PESTICIDES																	
1P. Aldrin (309-00-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>														
2P. α-BHC (319-84-6)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>														
3P. β-BHC (319-84-6)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>														
4P. γ-BHC (58-89-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>														
5P. δ-BHC (319-86-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>														
6P. Chlordane (57-74-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>														
7P. 4,4'-DDT (50-29-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>														
8P. 4,4'-DDE (72-55-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>														
9P. 4,4'-DDD (72-54-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>														
10P. Dieldrin (60-57-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>														
11P. α-Endosulfan (115-29-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>														
12P. β-Endosulfan (115-29-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>														
13P. Endosulfan Sulfate (1031-07-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>														
14P. Endrin (72-20-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>														
15P. Endrin Aldehyde (7421-93-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>														
16P. Heptachlor (76-44-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>														

NPDES # (IF ASSIGNED)	OUTFALL NUMBER
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PAGE 8

2.00 POTENTIAL DISCHARGES NOT COVERED BY ANALYSIS

A. IS ANY POLLUTANT LISTED IN ITEM 1.30 A SUBSTANCE OR A COMPONENT OF A SUBSTANCE WHICH YOU DO OR EXPECT THAT YOU WILL OVER THE NEXT FIVE YEARS USE OR MANUFACTURE AS AN INTERMEDIATE OR FINAL PRODUCT OR BYPRODUCT?

☐ YES (LIST ALL SUCH POLLUTANTS BELOW)

☒ NO (GO TO B)

B. ARE YOUR OPERATIONS SUCH THAT YOUR RAW MATERIALS, PROCESSES OR PRODUCTS CAN REASONABLE BE EXPECTED TO VARY SO THAT YOUR DISCHARGES OF POLLUTANTS MAY DURING THE NEXT FIVE YEARS EXCEED TWO TIMES THE MAXIMUM VALUES REPORTED IN ITEM 1.30?

☐ YES (COMPLETE C BELOW)

☒ NO (GO TO SECTION 3.00)

C. IF YOU ANSWERED "YES" TO ITEM B, EXPLAIN BELOW AND DESCRIBE IN DETAIL THE SOURCES AND EXPECTED LEVELS OF SUCH POLLUTANTS THAT YOU ANTICIPATE WILL BE DISCHARGED FROM EACH OUTFALL OVER THE NEXT FIVE YEARS, TO THE BEST OF YOUR ABILITY AT THIS TIME. CONTINUE ON ADDITIONAL SHEETS IF YOU NEED MORE SPACE.

3.00 CONTRACT ANALYSIS INFORMATION

WERE ANY OF THE ANALYSES REPORTED IN 1.30 PERFORMED BY A CONTRACT LABORATORY OR CONSULTING FIRM?

☒ YES (LIST THE NAME, ADDRESS, AND TELEPHONE NUMBER OF, AND ANALYZED BY, EACH SUCH LABORATORY OR FIRM BELOW)

☐ NO (GO TO SECTION 4.00)

A. NAME	B. ADDRESS	C. TELEPHONE (area code and number)	D. POLLUTANTS ANALYZED (list)
Environmental Analysis South	4000 E. Jackson Blvd, Jackson	(573) 204-8817	See Attached Analytical Report

4.00 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)

Alan Aubuchon, Manager

PHONE NUMBER (AREA CODE AND NUMBER)

(573) 431-4768

SIGNATURE

DATE SIGNED

02/18/2016



MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM, WATER POLLUTION BRANCH
**FORM D – APPLICATION FOR DISCHARGE PERMIT –
PRIMARY INDUSTRIES**

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

St. Francois County Environmental Corporation

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

MO -0108774

This form is to be filled out in addition to forms A and C "Application for Discharge Permit" for the Industries listed below:

INDUSTRY CATEGORY

Adhesives and sealants	Ore mining
Aluminum forming	Organic chemicals manufacturing
Auto and other laundries	Paint and ink formulation
Battery manufacturing	Pesticides
Coal mining	Petroleum refining
Coil coating	Pharmaceutical preparations
Copper forming	Photographic equipment and supplies
Electric and electronic compounds	Plastic and synthetic materials manufacturing
Electroplating	Plastic processing
Explosives manufacturing	Porcelain enameling
Foundries	Printing and publishing
Gum and wood chemicals	Pulp and paperboard mills
Inorganic chemicals manufacturing	Rubber processing
Iron and steel manufacturing	Soap and detergent manufacturing
Leather tanning and finishing	Steam electric power plants
Landfill	Textile mills
Mechanical products manufacturing	Timber products processing
Nonferrous metals manufacturing	

APPLICATION FOR DISCHARGE PERMIT FORM D – PRIMARY INDUSTRIES

TABLE II	
NPDES # (IF ASSIGNED)	OUTFALL NUMBER
MO-0108774	003

1.30 If you are a primary industry and this outfall contains process wastewater, refer to Table A in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-A for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. Mark "X" in column 2-B for each pollutant you know or have reason to believe is present. Mark "X" in column 2-C for each pollutant you believe to be absent. If you mark either columns 2-A or 2-B for any pollutant, you must provide the results of at least one analysis for that pollutant. Note that there are seven pages to this part, please review each carefully. Complete one table (*all seven pages*) for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"			3. EFFLUENT				4. UNITS		5. INTAKE (optional)		
	A. TESTING REQUIRED	B. BELIEVE D PRESENT	C. BELIEVE D ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (if available)		C. LONG TERM AVRG. VALUE (if available)		D. NO. OF ANALYSES	A. LONG TERM AVRG. VALUE	B. NO OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS		(1) CONCENTRATION	(2) MASS
METALS, AND TOTAL PHENOLS												
1M. Antimony, Total (7440-36-9)	—	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
2M. Arsenic, Total (7440-38-2)	—	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
3M. Beryllium, Total (7440-41-7)		<input type="checkbox"/>	<input checked="" type="checkbox"/>									
4M. Cadmium, Total (7440-43-9)		<input type="checkbox"/>	<input checked="" type="checkbox"/>									
5M. Chromium III (16065-83-1)		<input type="checkbox"/>	<input checked="" type="checkbox"/>									
6M. Chromium VI (18540-29-9)		<input type="checkbox"/>	<input checked="" type="checkbox"/>									
7M. Copper, Total (7440-50-8)		<input checked="" type="checkbox"/>	<input type="checkbox"/>	.006	0.01					1	mg/L	Lbs
8M. Lead, Total (7439-92-1)		<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.044	0.08					1	mg/L	Lbs
9M. Magnesium Total (7439-95-4)		<input checked="" type="checkbox"/>	<input type="checkbox"/>	9.48	17.08					1	mg/L	Lbs
10M. Mercury, Total (7439-97-6)		<input type="checkbox"/>	<input checked="" type="checkbox"/>									
11M. Molybdenum Total (7439-98-7)	—	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
12M. Nickel, Total (7440-02-0)	—	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
13M. Selenium, Total (7782-49-2)	—	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
14M. Silver, Total (7440-22-4)	—	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
15M. Thallium, Total (7440-28-0)	—	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
16M. Tin Total (7440-31-5)	—	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
17M. Titanium Total (7440-32-6)	—	<input type="checkbox"/>	<input checked="" type="checkbox"/>									
18M. Zinc, Total (7440-66-6)	—	<input checked="" type="checkbox"/>	<input type="checkbox"/>	0.026	0.05					1	mg/L	Lbs

[illegible]

DESCRIBE RESULTS			
2,3,7,8 -- Tetra - chlorodibenzo-P-Dioxin (1764-01-6)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>

[illegible][illegible]

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"			3. EFFLUENT						4. UNITS		5. INTAKE (optional)			
	A. TESTING RE-REQUIRED	B. BELIEVED PRESENT	C. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (if available)		C. LONG TERM AVRG. VALUE (if available)		D. NO. OF ANALYSES	A. CONCEN- TRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – VOLATILE COMPOUNDS (continued)															
22V. Methylene Chloride (75-09-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
23V. 1,1,2,2 – Tetra- chloroethane (79-34-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
24V. Tetrachloroethylene (127-18-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
25V. Toluene (108-88-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
26V. 1,2 – Trans Dichloroethylene (156-60-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
27V. 1,1,1 – Tri – chloroethane (71-55-6)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
28V. 1,1,2 – Tri- chloroethane (79-00-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
29V. Trichloro – ethylene (79-01-6)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
30V. Trichloro – fluoromethane (75-69-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
31V. Vinyl Chloride (75-01-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
GC/MS FRACTION – ACID COMPOUNDS															
1A. 2 – Chlorophenol (95-57-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
2A. 2,4 – Dichloro – phenol (120-83-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
3A. 2,4 – Dimethyl – phenol (105-67-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
4A. 4,6 – Dinitro - O- Cresol (534-52-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
5A. 2,4 – Dinitro – phenol (51-28-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
6A. 2-Nitrophenol (88-75-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
7A. 4-Nitrophenol (100-02-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
8A. P – Chloro – M Cresol (59-50-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
9A. Pentachloro – phenol (87-86-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
10A. Phenol (108-952)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
11A. 2,4,6 – Trichloro- phenol (88-06-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
12A. 2 - methyl – 4,6 dinitrophenol (534-52-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"			3. EFFLUENT				4. UNITS		5. INTAKE (optional)					
	A. TESTING REQUIRED	B. BELIEVED PRESENT	C. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (if available)		C. LONG TERM AVRG. VALUE (if available)		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS															
1B. Acenaphthene (83-32-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
2B. Acenaphthylene (208-96-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
3B. Anthracene (120-12-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
4B. Benzidine (92-87-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
5B. Benzo (a) Anthracene (56-55-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
6B. Benzo (a) Pyrene (50-32-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
7B. 3,4 – Benzofluoranthene (205-99-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
8B. Benzo (ghi) Perylene (191-24-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
9B. Benzo (k) Fluoranthene (207-08-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
10B. Bis (2-Chloroethoxy) Methane (111-91-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
11B. Bis (2-Chloroethyl) Ether (111-44-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
12B. Bis (2- Chloroisopropyl) Ether (39638-32-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
13B. Bis (2-Ethylhexyl) Phthalate (117-81-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
14B. 4-Bromophenyl Phenyl Ether (101-55-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
15B. Butyl Benzyl Phthalate (85-68-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
16B. 2- Chloronaphthalene (91-58-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
17B. 4-Chlorophenyl Phenyl Ether (7005-72-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
18B. Chrysene (218-01-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
19B. Dibenzo (a,h) Anthracene (53-70-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
20B. 1,2 – Dichlorobenzene (95-50-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
21B. 1,3 – Dichlorobenzene (541-73-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												

CONTINUED FROM PAGE 5

NPDES # (IF ASSIGNED) OUTFALL NUMBER

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"			3. EFFLUENT				4. UNITS		5. INTAKE (optional)				
	A. TESTING REQUIRED	B. BELIEVED PRESENT	C. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE (1) CONCENTRATION	B. MAXIMUM 30 DAY VALUE (if available)		C. LONG TERM AVRG. VALUE (if available)		D. NO. OF ANALYSES	A. CONCEN- TRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO OF ANALYSES
					(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION - BASE/NEUTRAL COMPOUNDS (continued)														
22B. 1, 4-Dichlorobenzene (106-46-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
23B. 3, 3'-Dichlorobenzidine (91-94-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
24B. Diethyl Phthalate (84-66-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
25B. Dimethyl Phthalate (131-11-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
26B. Di-N-butyl Phthalate (84-74-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
27B. 2,4-Dinitrotoluene (121-14-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
28B. 2,6-Dinitrotoluene (606-20-2)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
29B. Di-N-Octylphthalate (117-84-0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
30B. 1,2-Diphenylhydrazine (as Azobenzene) (122-66-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
31B. Fluoranthene (206-44-0)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
32B. Fluorene (86-73-7)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
33B. Hexachlorobenzene (87-68-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
34B. Hexachlorobutadiene (87-68-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
35B. Hexachlorocyclopentadiene (77-47-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
36B. Hexachloroethane (67-72-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
37B. Indeno (1,2,3-c-d) Pyrene (193-39-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
38B. Isophorone (78-59-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
39B. Naphthalene (91-20-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
40B. Nitrobenzene (98-95-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											
41B. N-Nitrosodimethylamine (62-75-9)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>											

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (if available)		2. MARK "X"			3. EFFLUENT						4. UNITS		5. INTAKE (optional)		B. NO OF ANALYSES	
		A. TES-ING REQUIRED	B. BELIEVED PRESENT	C. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (if available)		C. LONG TERM AVRG. VALUE (if available)		D. NO. OF ANALYSES	A. CONCEN- TRATION	B. MASS			
					(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS						
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS (continued)																
42B. N-Nitroso N-Propylamine (621-64-7)		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
43B. N-Nitro- sodiphenylamine (86-30- 6)		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
44B. Phenanthrene (85-01-8)		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
45B. Pyrene (129-00-0)		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
46B. 1,2,4-Tri chlorobenzene (120-82-1)		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
GC/MS FRACTION - PESTICIDES																
1P. Aldrin (309-00-2)		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
2P. α-BHC (319-84-6)		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
3P. β-BHC (319-84-6)		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
4P. γ-BHC (58-89-9)		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
5P. δ-BHC (319-86-8)		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
6P. Chlordane (57-74-9)		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
7P. 4,4'-DDT (50-29-3)		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
8P. 4,4'-DDE (72-55-9)		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
9P. 4,4'-DDD (72-54-8)		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
10P. Dieldrin (60-57-1)		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
11P. α-Endosulfan (115-29-7)		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
12P. β-Endosulfan (115-29-7)		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
13P. Endosulfan Sulfate (1031-07-8)		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
14P. Endrin (72-20-8)		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
15P. Endrin Aldehyde (7421-93-4)		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												
16P. Heptachlor (76-44-8)		<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>												

MO 780-1516 (06-13)

PAGE 7

CONTINUED ON PAGE 8

NPDES # (IF ASSIGNED)	OUTFALL NUMBER
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PAGE 8

2.00 POTENTIAL DISCHARGES NOT COVERED BY ANALYSIS

A. IS ANY POLLUTANT LISTED IN ITEM 1.30 A SUBSTANCE OR A COMPONENT OF A SUBSTANCE WHICH YOU DO OR EXPECT THAT YOU WILL OVER THE NEXT FIVE YEARS USE OR MANUFACTURE AS AN INTERMEDIATE OR FINAL PRODUCT OR BYPRODUCT?

☐ **YES (LIST ALL SUCH POLLUTANTS BELOW)**

☒ **NO (GO TO B)**

B. ARE YOUR OPERATIONS SUCH THAT YOUR RAW MATERIALS, PROCESSES OR PRODUCTS CAN REASONABLE BE EXPECTED TO VARY SO THAT YOUR DISCHARGES OF POLLUTANTS MAY DURING THE NEXT FIVE YEARS EXCEED TWO TIMES THE MAXIMUM VALUES REPORTED IN ITEM 1.30?

☐ **YES (COMPLETE C BELOW)**

☒ **NO (GO TO SECTION 3.00)**

C. IF YOU ANSWERED "YES" TO ITEM B, EXPLAIN BELOW AND DESCRIBE IN DETAIL THE SOURCES AND EXPECTED LEVELS OF SUCH POLLUTANTS THAT YOU ANTICIPATE WILL BE DISCHARGED FROM EACH OUTFALL OVER THE NEXT FIVE YEARS, TO THE BEST OF YOUR ABILITY AT THIS TIME. CONTINUE ON ADDITIONAL SHEETS IF YOU NEED MORE SPACE.

3.00 CONTRACT ANALYSIS INFORMATION

WERE ANY OF THE ANALYSES REPORTED IN 1.30 PERFORMED BY A CONTRACT LABORATORY OR CONSULTING FIRM?

☒ **YES (LIST THE NAME, ADDRESS, AND TELEPHONE NUMBER OF, AND ANALYZED BY, EACH SUCH LABORATORY OR FIRM BELOW)**

☐ **NO (GO TO SECTION 4.00)**

A. NAME	B. ADDRESS	C. TELEPHONE (area code and number)	D. POLLUTANTS ANALYZED (list)
Environmental Analysis South	4000 E. Jackson Blvd, Jackson	(573) 204-8817	See Attached Analytical Report

4.00 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.

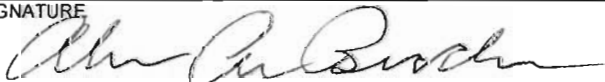
NAME AND OFFICIAL TITLE (TYPE OR PRINT)

Alan Aubuchon, Manager

PHONE NUMBER (AREA CODE AND NUMBER)

(573) 431-4768

SIGNATURE



DATE SIGNED

02/18/2016

Environmental Analysis South, Inc

4000 East Jackson Blvd. - Jackson MO 63755 - 573-204-8817 - Fax 573-204-8818

Alan Aubuchon
St. Francois Co Env Corp
200 Landfill Rd
Park Hills, MO 63601

Report Number: 112582

Report of Analysis

Reference:

The analysis of wastewater is conducted in accordance US EPA approved methods listed in 40 CFR Part 136.

Log Number:

1305104

Sample Description:

Outfall #002

Sample Date:

3/14/2011

BTEX Group

Test Description	Result	Units	Method	Comment Code	Analysis Date	Analyst
Benzene	< 5.0	µg/L	EPA-624	PDC	03/23/11	127
BTEX by Sub-contracting Laboratory	1		EPA-624	PDC	03/23/11	127
Ethyl Benzene	< 5.0	µg/L	EPA-624	PDC	03/23/11	127
meta/ para-Xylenes	< 10	µg/L	EPA-624	PDC	03/23/11	127
Methyl tert-butyl ether	< 5.0	µg/L	EPA-624	PDC	03/23/11	127
ortho-Xylenes	< 5.0	µg/L	EPA-624	PDC	03/23/11	127
Toluene	< 5.0	µg/L	EPA-624	PDC	03/23/11	127

Demands

Test Description	Result	Units	Method	Comment Code	Analysis Date	Analyst
B.O.D. (5-day)	< 2	mg/L	SM-5210 B-01		03/16/11	147
Chemical Oxygen Demand	60	mg/L	CAI-SB1500		03/21/11	133

Minerals

Test Description	Result	Units	Method	Comment Code	Analysis Date	Analyst
Chloride	1.27	mg/L	SM-4110B-00		03/21/11	133
Fluoride	0.062	mg/L	SM-4110B-00		03/21/11	133
Hardness	47.6	mg/L	SM-2340B-97		03/16/11	133
pH Measurement	7.50	S.U.	SM-4500-H B-00		03/14/11	133
Sulfate	3.47	mg/L	SM-4110B-00		03/21/11	133

Environmental Analysis South, Inc

4000 East Jackson Blvd. - Jackson MO 63755 - 573-204-8817 - Fax 573-204-8818

Alan Aubuchon
St. Francois Co Env Corp
200 Landfill Rd
Park Hills, MO 63601

Report Number: 112582

Report of Analysis

Log Number: 1305104
Sample Description: Outfall #002

Sample Date:
3/14/2011

Nutrients

Test Description	Result	Units	Method	Comment Code	Analysis Date	Analyst
Ammonia as Nitrogen	< 0.050	mg/L	Lachat-10-107-06-1-K		03/15/11	102
Nitrate as Nitrogen	0.034	mg/L	SM-4110B-00		03/21/11	133
Phosphorus	0.207	mg/L	SM-20 4500-P E-99		03/21/11	133

O&G Group

Test Description	Result	Units	Method	Comment Code	Analysis Date	Analyst
Oil & Grease by n-Hexane Extr.	< 5	mg/L	EPA-1664A		03/17/11	148

Preparation Methods

Test Description	Result	Units	Method	Comment Code	Analysis Date	Analyst
Anions IC Sample Preparation	1	Prep	SM-4110B-00		03/21/11	133
Metals ICP Sample Digestion	1	Prep	EPA-200.7 Rev. 4.4	PDC	03/24/11	
Total (Total Recoverable) Metals	1	Prep	EPA-200.2		03/14/11	133

Solids

Test Description	Result	Units	Method	Comment Code	Analysis Date	Analyst
Settleable Solids	< 0.5	ml/L/hr	SM-2540 F-97		03/14/11	133
Suspended Solids	14	mg/L	SM-2540 D-97		03/15/11	133

Total (Total Recoverable) Trace Metals

Test Description	Result	Units	Method	Comment Code	Analysis Date	Analyst
Antimony by ICP	< 0.010	mg/L	EPA-200.7 Rev. 4.4	PDC	03/25/11	
Arsenic by ICP	< 0.015	mg/L	EPA-200.7 Rev. 4.4	PDC	03/25/11	
Barium by ICP	0.028	mg/L	EPA-200.7 Rev. 4.4	PDC	03/25/11	
Beryllium by ICP	< 0.0010	mg/L	EPA-200.7 Rev. 4.4	PDC	03/25/11	
Boron by ICP	< 0.050	mg/L	EPA-200.7 Rev. 4.4	PDC	03/25/11	
Cadmium	< 0.003	mg/L	SM-3111 B-99		03/16/11	133

Environmental Analysis South, Inc

4000 East Jackson Blvd. - Jackson MO 63755 - 573-204-8817 - Fax 573-204-8818

Alan Aubuchon
St. Francois Co Env Corp
200 Landfill Rd
Park Hills, MO 63601

Report Number: 112582

Report of Analysis

Log Number: Sample Description:
1305104 Outfall #002

Sample Date:
3/14/2011

Total (Total Recoverable) Trace Metals

Test Description	Result	Units	Method	Comment Code	Analysis Date	Analyst
Calcium	8.48	mg/L	SM-3111B-99		03/16/11	133
Chromium	< 0.005	mg/L	SM-3111 B-99		03/17/11	133
Cobalt	< 0.020	mg/L	SM-3111 B-99		03/17/11	133
Copper	0.002	mg/L	SM-3111 B-99		03/16/11	133
Hexavalent Chromium	< 0.005	mg/L	SM-3500-Cr B-01		03/14/11	133
Iron	2.23	mg/L	SM-3111 B-99		03/17/11	133
Lead by ICP	0.035	mg/L	EPA-200.7 Rev. 4.4	PDC	03/25/11	
Magnesium	6.42	mg/L	SM-3111 B-99		03/16/11	133
Manganese	0.032	mg/L	SM-3111 B-99		03/17/11	133
Mercury by Color Vapor Technique	< 0.0002	mg/L	SM-3112 B-99		03/23/11	133
Nickel	< 0.010	mg/L	SM-3111 B-99		03/17/11	133
Selenium by ICP	< 0.010	mg/L	EPA-200.7 Rev. 4.4	PDC	03/25/11	
Silver	< 0.005	mg/L	SM-3111 B-99		03/17/11	133
Thallium by ICP	< 0.020	mg/L	EPA-200.7 Rev. 4.4	PDC	03/25/11	
Trivalent Chromium	< 0.005	mg/L	SM-3111 B/3500-Cr B-01		03/17/11	133
Zinc	< 0.003	mg/L	SM-3111 B-99		03/17/11	133

Log Number: Sample Description:
1305105 Outfall #003

Sample Date:
3/14/2011

BTEX Group

Test Description	Result	Units	Method	Comment Code	Analysis Date	Analyst
Benzene	< 5.0	µg/L	EPA-624	PDC	03/23/11	127
BTEX by Sub-contracting Laboratory	1		EPA-624	PDC	03/23/11	127
Ethyl Benzene	< 5.0	µg/L	EPA-624	PDC	03/23/11	127
meta/ para-Xylenes	< 10	µg/L	EPA-624	PDC	03/23/11	127

Environmental Analysis South, Inc

4000 East Jackson Blvd. - Jackson MO 63755 - 573-204-8817 - Fax 573-204-8818

Alan Aubuchon
St. Francois Co Env Corp
200 Landfill Rd
Park Hills, MO 63601

Report Number: 112582

Report of Analysis

Log Number: 1305105
Sample Description: Outfall #003

Sample Date:
3/14/2011

BTEX Group

Test Description	Result	Units	Method	Comment Code	Analysis Date	Analyst
Methyl tert-butyl ether	< 5.0	µg/L	EPA-624	PDC	03/23/11	127
ortho-Xylenes	< 5.0	µg/L	EPA-624	PDC	03/23/11	127
Toluene	< 5.0	µg/L	EPA-624	PDC	03/23/11	127

Demands

Test Description	Result	Units	Method	Comment Code	Analysis Date	Analyst
B.O.D. (5-day)	< 2	mg/L	SM-5210 B-01		03/16/11	147
Chemical Oxygen Demand	60	mg/L	CAI-SB1500		03/21/11	133

Minerals

Test Description	Result	Units	Method	Comment Code	Analysis Date	Analyst
Chloride	1.11	mg/L	SM-4110B-00		03/21/11	133
Fluoride	< 0.050	mg/L	SM-4110B-00		03/21/11	133
Hardness	80.7	mg/L	SM-2340B-97		03/16/11	133
pH Measurement	7.41	S.U.	SM-4500-H B-00		03/14/11	133
Sulfate	9.13	mg/L	SM-4110B-00		03/21/11	133

Nutrients

Test Description	Result	Units	Method	Comment Code	Analysis Date	Analyst
Ammonia as Nitrogen	< 0.050	mg/L	Lachat-10-107-06-1-K		03/15/11	102
Nitrate as Nitrogen	0.034	mg/L	SM-4110B-00		03/21/11	133
Phosphorus	0.177	mg/L	SM-20 4500-P E-99		03/21/11	133

O&G Group

Test Description	Result	Units	Method	Comment Code	Analysis Date	Analyst
Oil & Grease by n-Hexane Extr.	< 5	mg/L	EPA-1664A		03/17/11	148

Environmental Analysis South, Inc

4000 East Jackson Blvd. - Jackson MO 63755 - 573-204-8817 - Fax 573-204-8818

Alan Aubuchon
St. Francois Co Env Corp
200 Landfill Rd
Park Hills, MO 63601

Report Number: 112582

Report of Analysis

Log Number: 1305105
Sample Description: Outfall #003

Sample Date:
3/14/2011

Preparation Methods

Test Description	Result	Units	Method	Comment Code	Analysis Date	Analyst
Anions IC Sample Preparation	1	Prep	SM-4110B-00		03/21/11	133
Metals ICP Sample Digestion	1	Prep	EPA-200.7 Rev. 4.4	PDC	03/24/11	
Total (Total Recoverable) Metals	1	Prep	EPA-200.2		03/14/11	133

Solids

Test Description	Result	Units	Method	Comment Code	Analysis Date	Analyst
Settleable Solids	< 0.5	ml/L/hr	SM-2540 F-97		03/14/11	133
Suspended Solids	7	mg/L	SM-2540 D-97		03/15/11	133

Total (Total Recoverable) Trace Metals

Test Description	Result	Units	Method	Comment Code	Analysis Date	Analyst
Antimony by ICP	< 0.010	mg/L	EPA-200.7 Rev. 4.4	PDC	03/25/11	
Arsenic by ICP	< 0.015	mg/L	EPA-200.7 Rev. 4.4	PDC	03/25/11	
Barium by ICP	0.023	mg/L	EPA-200.7 Rev. 4.4	PDC	03/25/11	
Beryllium by ICP	< 0.0010	mg/L	EPA-200.7 Rev. 4.4	PDC	03/25/11	
Boron by ICP	< 0.050	mg/L	EPA-200.7 Rev. 4.4	PDC	03/25/11	
Cadmium	< 0.003	mg/L	SM-3111 B-99		03/16/11	133
Calcium	16.7	mg/L	SM-3111B-99		03/16/11	133
Chromium	< 0.005	mg/L	SM-3111 B-99		03/17/11	133
Cobalt	< 0.020	mg/L	SM-3111 B-99		03/17/11	133
Copper	0.006	mg/L	SM-3111 B-99		03/16/11	133
Hexavalent Chromium	< 0.005	mg/L	SM-3500-Cr B-01		03/14/11	133
Iron	1.15	mg/L	SM-3111 B-99		03/17/11	133
Lead by ICP	0.044	mg/L	EPA-200.7 Rev. 4.4	PDC	03/25/11	
Magnesium	9.48	mg/L	SM-3111 B-99		03/16/11	133
Manganese	0.032	mg/L	SM-3111 B-99		03/17/11	133

Environmental Analysis South, Inc

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Alan Aubuchon
St. Francois Co Env Corp
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Report Number: 112582

Report of Analysis

Log Number: Sample Description:
1305105 Outfall #003

Sample Date:
3/14/2011

Total (Total Recoverable) Trace Metals

Test Description	Result	Units	Method	Comment Code	Analysis Date	Analyst
Mercury by Color Vapor Technique	< 0.0002	mg/L	SM-3112 B-99		03/23/11	133
Nickel	< 0.010	mg/L	SM-3111 B-99		03/17/11	133
Selenium by ICP	< 0.010	mg/L	EPA-200.7 Rev. 4.4	PDC	03/25/11	
Silver	< 0.005	mg/L	SM-3111 B-99		03/17/11	133
Thallium by ICP	< 0.020	mg/L	EPA-200.7 Rev. 4.4	PDC	03/25/11	
Trivalent Chromium	< 0.005	mg/L	SM-3111 B/3500-Cr B-01		03/17/11	133
Zinc	0.026	mg/L	SM-3111 B-99		03/17/11	133

Log Number: Sample Description:
1305106 Outfall #004

Sample Date:
3/14/2011

Minerals

Test Description	Result	Units	Method	Comment Code	Analysis Date	Analyst
Hardness	118	mg/L	SM-2340B-97		03/16/11	133

Preparation Methods

Test Description	Result	Units	Method	Comment Code	Analysis Date	Analyst
Metals ICP Sample Digestion	1	Prep	EPA-200.7 Rev. 4.4	PDC	03/24/11	
Total (Total Recoverable) Metals	1	Prep	EPA-200.2		03/14/11	133

Solids

Test Description	Result	Units	Method	Comment Code	Analysis Date	Analyst
Suspended Solids	74	mg/L	SM-2540 D-97		03/15/11	133

Total (Total Recoverable) Trace Metals

Test Description	Result	Units	Method	Comment Code	Analysis Date	Analyst
Calcium	22.8	mg/L	SM-3111B-99		03/16/11	133

Environmental Analysis South, Inc

4000 East Jackson Blvd. - Jackson MO 63755 - 573-204-8817 - Fax 573-204-8818

Alan Aubuchon
St. Francois Co Env Corp
200 Landfill Rd
Park Hills, MO 63601

Report Number: 112582

Report of Analysis

Log Number: Sample Description:
1305106 Outfall #004

Sample Date:
3/14/2011

Total (Total Recoverable) Trace Metals

Test Description	Result	Units	Method	Comment Code	Analysis Date	Analyst
Lead by ICP	0.34	mg/L	EPA-200.7 Rev. 4.4	PDC	03/25/11	
Magnesium	14.8	mg/L	SM-3111 B-99		03/16/11	133

Log Number: Sample Description:
1305107 Outfall #005

Sample Date:
3/14/2011

Minerals

Test Description	Result	Units	Method	Comment Code	Analysis Date	Analyst
Hardness	109	mg/L	SM-2340B-97		03/16/11	133

Preparation Methods

Test Description	Result	Units	Method	Comment Code	Analysis Date	Analyst
Metals ICP Sample Digestion	1	Prep	EPA-200.7 Rev. 4.4	PDC	03/24/11	
Total (Total Recoverable) Metals	1	Prep	EPA-200.2		03/14/11	133

Solids

Test Description	Result	Units	Method	Comment Code	Analysis Date	Analyst
Suspended Solids	51	mg/L	SM-2540 D-97		03/15/11	133

Total (Total Recoverable) Trace Metals

Test Description	Result	Units	Method	Comment Code	Analysis Date	Analyst
Calcium	29.8	mg/L	SM-3111B-99		03/16/11	133
Lead by ICP	0.45	mg/L	EPA-200.7 Rev. 4.4	PDC	03/25/11	
Magnesium	8.40	mg/L	SM-3111 B-99		03/16/11	133

Environmental Analysis South, Inc

4000 East Jackson Blvd. - Jackson MO 63755 - 573-204-8817 - Fax 573-204-8818

Alan Aubuchon
St. Francois Co Env Corp
200 Landfill Rd
Park Hills, MO 63601

Report Number: 112582

Report of Analysis

Respectfully submitted,

David F. Warren

Comments:

PDC This parameter or group of analytes was analyzed by the subcontracting lab - PDC Lab
Saint Louis, MO

**PDC Laboratories, Inc.**

3278 N. Highway 67 - Florissant, MO 63033
(314) 432-0550 - (800) 333-FAST (3278) - FAX (314) 432-4977

Environmental Analysis South
4000 E Jackson Blvd
Jackson, MO 63755
Attn: Dave Warren

Date Received: 03/16/11 15:15
Report Date: 03/25/11
Customer #: 275325
PO#: 1031781

Sample No: 1031781-01
Sample Description: 1305109

Collect Date: 03/15/11 00:00
Matrix: Water

Parameters	Result	Qual	Analysis Date	Analyst	Method
Fuels - PIA					
Methanol	< 10 mg/L		03/18/11 13:10	jmt;;	SW 8015B
Ethanol	< 10 mg/L		03/18/11 13:10	jmt;;	SW 8015B
Isopropanol	< 10 mg/L		03/18/11 13:10	jmt;;	SW 8015B
Volatile Organics - STL					
MTBE	< 5.0 ug/L		03/23/11 17:34	BP	EPA 624
Benzene	< 5.0 ug/L		03/23/11 17:34	BP	EPA 624
Toluene	< 5.0 ug/L		03/23/11 17:34	BP	EPA 624
Ethylbenzene	< 5.0 ug/L		03/23/11 17:34	BP	EPA 624
m,p-Xylene	< 10 ug/L		03/23/11 17:34	BP	EPA 624
o-Xylene	< 5.0 ug/L		03/23/11 17:34	BP	EPA 624
Xylenes- Total	< 15 ug/L		03/23/11 17:34	BP	EPA 624
Surrogate: 1,2-Dichloroethane-d4	75 % 52.1-110		03/23/11 17:34	BP	EPA 624
Surrogate: Toluene-d8	77 % 68.6-99.1		03/23/11 17:34	BP	EPA 624
Surrogate: Bromofluorobenzene	75 % 68.7-103		03/23/11 17:34	BP	EPA 624

Sample No: 1031781-02
Sample Description: 1305104

Collect Date: 03/15/11 00:00
Matrix: Water

Parameters	Result	Qual	Analysis Date	Analyst	Method
Volatile Organics - STL					
MTBE	< 5.0 ug/L		03/23/11 18:09	BP	EPA 624
Benzene	< 5.0 ug/L		03/23/11 18:09	BP	EPA 624
Toluene	< 5.0 ug/L		03/23/11 18:09	BP	EPA 624
Ethylbenzene	< 5.0 ug/L		03/23/11 18:09	BP	EPA 624
m,p-Xylene	< 10 ug/L		03/23/11 18:09	BP	EPA 624
o-Xylene	< 5.0 ug/L		03/23/11 18:09	BP	EPA 624
Xylenes- Total	< 15 ug/L		03/23/11 18:09	BP	EPA 624
Surrogate: 1,2-Dichloroethane-d4	73 % 52.1-110		03/23/11 18:09	BP	EPA 624
Surrogate: Toluene-d8	76 % 68.6-99.1		03/23/11 18:09	BP	EPA 624
Surrogate: Bromofluorobenzene	75 % 68.7-103		03/23/11 18:09	BP	EPA 624



PDC Laboratories, Inc.

3278 N. Highway 67 - Florissant, MO 63033
(314) 432-0550 - (800) 333-FAST (3278) - FAX (314) 432-4977

Environmental Analysis South
4000 E Jackson Blvd
Jackson, MO 63755
Attn: Dave Warren

Date Received: 03/16/11 15:15
Report Date: 03/25/11
Customer #: 275325
PO#: 1031781

Sample No: **1031781-03**
Sample Description: **1305105**

Collect Date: **03/15/11 00:00**
Matrix: **Water**

Parameters	Result	Qual	Analysis Date	Analyst	Method
<u>Volatile Organics - STL</u>					
MTBE	< 5.0 ug/L		03/23/11 18:45	BP	EPA 624
Benzene	< 5.0 ug/L		03/23/11 18:45	BP	EPA 624
Toluene	< 5.0 ug/L		03/23/11 18:45	BP	EPA 624
Ethylbenzene	< 5.0 ug/L		03/23/11 18:45	BP	EPA 624
m,p-Xylene	< 10 ug/L		03/23/11 18:45	BP	EPA 624
o-Xylene	< 5.0 ug/L		03/23/11 18:45	BP	EPA 624
Xylenes- Total	< 15 ug/L		03/23/11 18:45	BP	EPA 624
Surrogate: 1,2-Dichloroethane-d4	76 % 52.1-110		03/23/11 18:45	BP	EPA 624
Surrogate: Toluene-d8	77 % 68.6-99.1		03/23/11 18:45	BP	EPA 624
Surrogate: Bromofluorobenzene	74 % 68.7-103		03/23/11 18:45	BP	EPA 624



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Customer #: 275325
PO#: 1031781

Notes

This report shall not be reproduced, except in full, without the written approval of the laboratory.

PDC Laboratories participates in the following accreditation/certification and proficiency programs at the following locations.
Endorsement by Federal or State Governments or their agencies is not implied.

PIA PDC Laboratories - Peoria, IL

NELAC Accreditation for Drinking Water, Wastewater, Hazardous and Solid Wastes Fields of Testing through IL EPA Lab No. 100230

Illinois Department of Public Health Bacteriological Analysis in Drinking Water Approved Laboratory Registry No. 17553

Drinking Water Certifications: Kansas (E-10338); Missouri (870); Wisconsin (998284430); Indiana (C-IL-040); Iowa (240)

Wastewater Certifications: Arkansas (88-0677); Wisconsin (998284430); Iowa (240); Kansas (E-10335)

Hazardous/Solid Waste Certifications: Arkansas (88-0677); Wisconsin (998284430); Iowa (240); Kansas (E-10335)

UST Certification; Iowa (240)

SPM PDC Laboratories - Springfield, MO

EPA DMR-QA Program

STL PDC Laboratories - St. Louis, MO

NELAC Accreditation for Wastewater, Hazardous and Solid Wastes Fields of Testing

Barbara G. Pandolfo

Certified by: Barb Pandolfo, Project Manager

CHAIN OF CUSTODY RECORD

Sampler's Signature:

Sec Table

Time:

Additional Comments:

Address:

City/State/Zip:

Rush Requested (Die Date:

PO Number:

EAS Log Number	Sample Description	Containers			# of Bottles	Sample Matrix				Analysis		
		Type*	Size	Preserv**		Water	Soil	Sedge	Other			
	1305109	V	400	I	1					X Ethanol	X BTEX	
		V	400	H	1						X	
	1305104	V	400	H	2						X	
	1305105	L	L	L	2						X	

Revised June 29, 1999



FROM: (Please Circle) Peoria

TO: (Please Circle)

LABORATORY TRANSFER CHAIN OF CUSTODY RECORD

(Samples must be logged to LIMS prior to transfer)

St. Louis
Springfield

St. Louis
Springfield

State where samples collected

[illegible]

Ar  equipment

Outfall 002

7:45 AM

300 GPM Grab Estimate
Controlled Release

Water temp 34.3°

AIR TEMP 34°

Outfall 003

8:15 AM

150 GPM Grab estimate

Water temp 34.5°

Air temp 35°

1368 Lonedell Road, Arnold, MO 63010

Phone: 636-296-7119 • Toll Free: 800-777-ARMOR • Fax: 636-296-2920

www.armor-equip.com

Armor Equipment

OUTFALL 004
BIG RIVER - UPPER
8:30 AM

1310 CFPS

Water TEMP.

36.5°

AIR TEMP. 36°

OUTFALL 005

BIG RIVER - LOWER

8:40 AM

1310 CFPS

WATER TEMP 38.3°

AIR TEMP 36°

Armor Equipment

3/14/11 8 AM

Cubic Ft. per sec 1310

x 7.8

Gal p. sec. 10,218

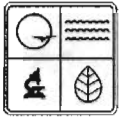
x 60 sec

613,080

x 24 hrs

MGD. 14,713,920

BIG RIVER FLOW



MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM, WATER POLLUTION BRANCH
(SEE MAP FOR APPROPRIATE REGIONAL OFFICE)
**FORM I – PERMIT APPLICATION FOR CONSTRUCTION AND
OPERATION OF WASTEWATER IRRIGATION SYSTEMS**

FOR AGENCY USE ONLY

PERMIT NUMBER

MO -

DATE RECEIVED

INSTRUCTIONS: The following forms must be submitted with Form I: FORM B for domestic wastewater. Submit FORMS E and G for land disturbance permit if construction areas total one acre or more.

1.00 FACILITY INFORMATION

1.10 Facility Name

St. Francois County Environmental Corporation

- 1.20 Application for: ☐ Construction Permit (attach Engineering report, Plans and Specifications per 10 CSR 20-8)
☐ Operating Permit (if no construction permit, attach engineering documents)
Date Irrigation System Began Operation: 05/15/2015
☒ Operating Permit Renewal

- 1.30 Type of wastewater to be irrigated: ☐ Domestic ☐ Municipal ☐ State/National Park ☐ Seasonal business
☐ Municipal with Pretreatment Program or Significant Industrial Users ☒ Other (explain) Runoff
SIC Codes (list all that apply, in order of importance) 4953

- 1.40 Months when the business or enterprise will operate or generate wastewater:
☒ 12 months per year ☐ Part of year (list Months): _____

- 1.50 This system is designed for:
☒ No-discharge ☐ Partial irrigation when feasible and discharge rest of time.
☐ Irrigation during recreation season (April – October) and discharge during November – March.
☐ Other (explain) _____

- 1.60 List the Facility outfalls which will be applicable to the irrigation system from outfalls listed on Form B.
Outfall Nos. _____

2.00 STORAGE BASINS

- 2.10 Number of storage basins: 5 Type of basin: ☐ Steel ☐ Concrete ☐ Fiberglass ☒ Earthen
☐ Earthen with membrane liner



- 2.20 Storage basin dimensions at inside top of berm (feet): Report freeboard as feet from top of berm to emergency spillway or overflow pipe.
(Complete Attachment A: Profile Sketch)
Basin #1: Length 133 Width 133 Depth 11 Freeboard 2 Berm Width 20 % Slope 33
Basin #2: Length 162 Width 162 Depth 13 Freeboard 2 Berm Width 20 % Slope 33

- 2.30 Storage Basin operating levels (report as feet below emergency overflow level)
Basin #1: Maximum water level 11 ft. Minimum operating water level 2 ft.
Basin #2: Maximum water level 13 ft. Minimum operating water level 2 ft.

- 2.40 Depth of sludge in lagoons and storage basins 0 ft.
Total sludge stored 0 dry tons 0 cu. ft.

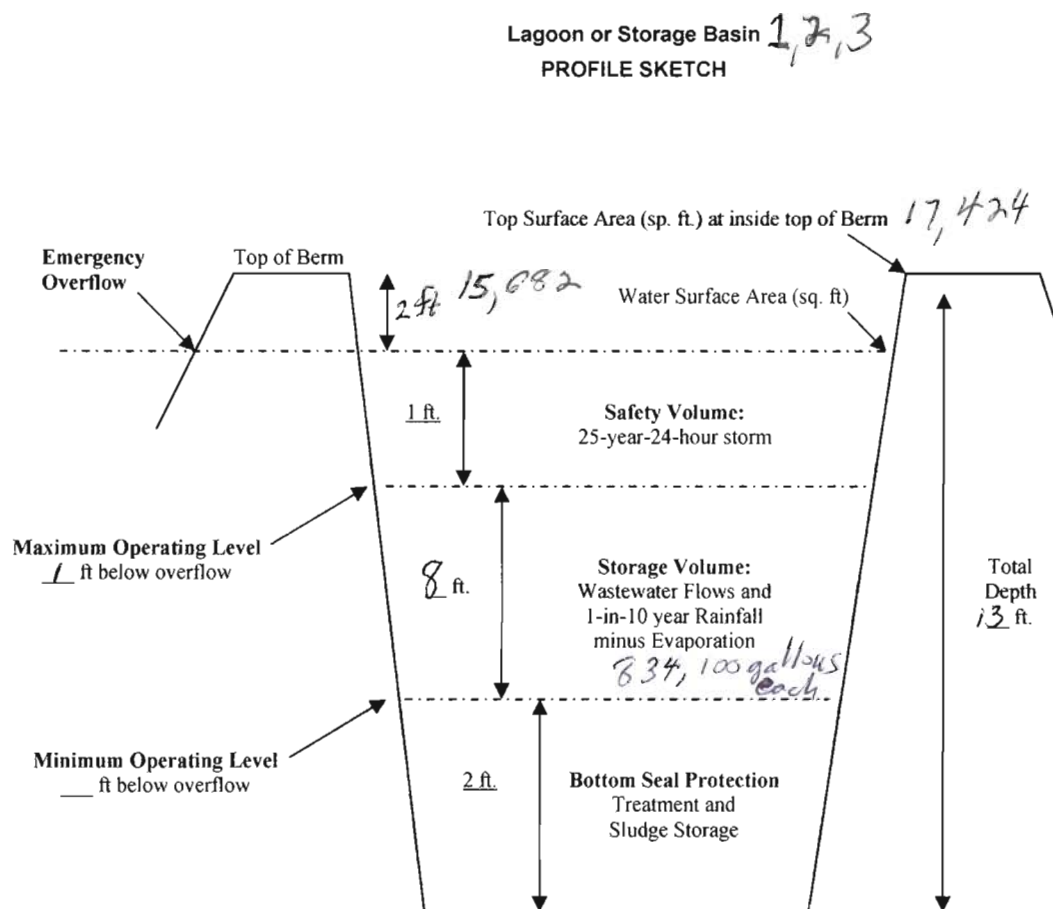
3.00 LAND APPLICATION SYSTEM

- 3.10 Number of irrigation sites 2 Total Acres 70.5 Maximum % field slopes 4
Location: _____ ¼, _____ ¼, SE _____ ¼, NW _____ Sec. 36 _____ T 37N R _____ 4E County 54.7 Acres
Location: SE _____ ¼, _____ ¼, SE _____ ¼, NW _____ Sec. 36 _____ T 37N R _____ 4E County 15.8 Acres

3.11	Type of vegetation:	<input type="checkbox"/> Grass hay	<input checked="" type="checkbox"/> Pasture	<input type="checkbox"/> Timber	<input type="checkbox"/> Row crops	<input type="checkbox"/> Other (describe) _____
3.20	Wastewater flow (dry weather) gallons/day:					
	Average annual:	<u>0</u>	Seasonal <u>146K</u>	Off-season <u>0</u>		
	Months of seasonal flow:	<u>3</u>				
	Human Population Equivalent:	<u>NA</u>				
3.21	Land Application rate per acre (design flow including 1 in 10 year storm water flows):					
	Design:	<u>7.5</u> inches/year	<u>.01</u> inches/hour	<u>.08</u> inches/day	<u>0.4</u> inches/week	
	Actual:	_____ inches/year	_____ inches/hour	_____ inches/day	_____ inches/week	
	Total Irrigation per year (gallons):	<u>15M</u> Design	_____ Actual			
	Actual months used for Irrigation (check):	<input type="checkbox"/> Jan <input type="checkbox"/> Feb <input type="checkbox"/> Mar <input type="checkbox"/> Apr <input checked="" type="checkbox"/> May <input checked="" type="checkbox"/> Jun <input checked="" type="checkbox"/> Jul <input checked="" type="checkbox"/> Aug <input type="checkbox"/> Sep <input type="checkbox"/> Oct <input type="checkbox"/> Nov <input type="checkbox"/> Dec				
3.22	Land Application Rate is based on:					
	<input type="checkbox"/> Nutrient Management Plan (N&P)					
	<input checked="" type="checkbox"/> Hydraulic Loading					
	<input type="checkbox"/> Other (describe) _____					
3.30	Equipment type:	<input type="checkbox"/> Sprinklers	<input checked="" type="checkbox"/> Gated pipe	<input type="checkbox"/> Center pivot	<input type="checkbox"/> Traveling gun	<input type="checkbox"/> Other (describe) _____
	Equipment Flow Capacity:	<u>19K</u> Gallons per hour	<u>800</u> Total hours of operation per year			
3.40	Public Access Restrictions for irrigation sites:	<input checked="" type="checkbox"/> Site is Fenced <input type="checkbox"/> Wastewater disinfection prior to irrigation <input type="checkbox"/> Other (describe): _____				
3.50	Separation distance (in feet) from the outside edge of the wetted irrigation area to down gradient features:					
	<u>350</u> Permanent flowing stream	<u>NA</u> Losing Stream	<u>200</u> Intermittent (wet weather) stream	<u>NA</u> Lake or pond		
	<u>150</u> Property boundary	<u>800</u> Dwellings	<u>NA</u> Water supply well	_____ Other (describe) _____		
3.60	SOILS INFORMATION:	Use information from the County Soil Survey, NRCS, or professional soil scientist.				
	Soil Series Name <u>Gasc</u>	Depth of bedrock <u>40+</u> Feet	Depth of water table _____ Feet			
	Soil Infiltration rate in inches/hour (in/hr) for most restrictive layer within the following soil depth ranges:					
	<u>.6-2</u> In/hr for 0-12 in soil depth	<u>.2-6</u> In/hr for 12-24 inch soil depth	<u>6-9</u> In/hr for 24-60 inch soil depth			
3.70	Include a recent Geologic Report by the Department's Geological Survey and Resource Assessment Division with your construction permit.					
3.80	Attach a current copy of the Operation and Maintenance (O&M) Plan for the irrigation system. Date of O&M Plan: <u>11/2014</u>					
3.81	Attach a site map showing topography, storage basins, irrigation sites, property boundary, streams, wells, roads, dwellings and other pertinent features.					
3.82	Attach a facility sketch showing treatment units, storage basins, pipelines, irrigation equipment, application sites and other features.					
4.00 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 this 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 or imprisonment.						
CONSULTING ENGINEER – Name, Official Title and Engineering Firm (TYPE OR PRINT)				TELEPHONE NUMBER (area code and number)		
Rickie Roberts, Senior Civil Engineer, Gredell Engineering Resources				(417) 350-2818		
SIGNATURE 				DATE SIGNED 02/17/2016		
OWNER OR AUTHORIZED REPRESENTATIVE – Name and Official Title (TYPE OR PRINT)				TELEPHONE NUMBER (area code and number)		
Alan Aubuchon, Manager				(573) 431-4768		
SIGNATURE 				DATE SIGNED 02/18/2016		

ATTACHMENT A

(To be included with Form I)



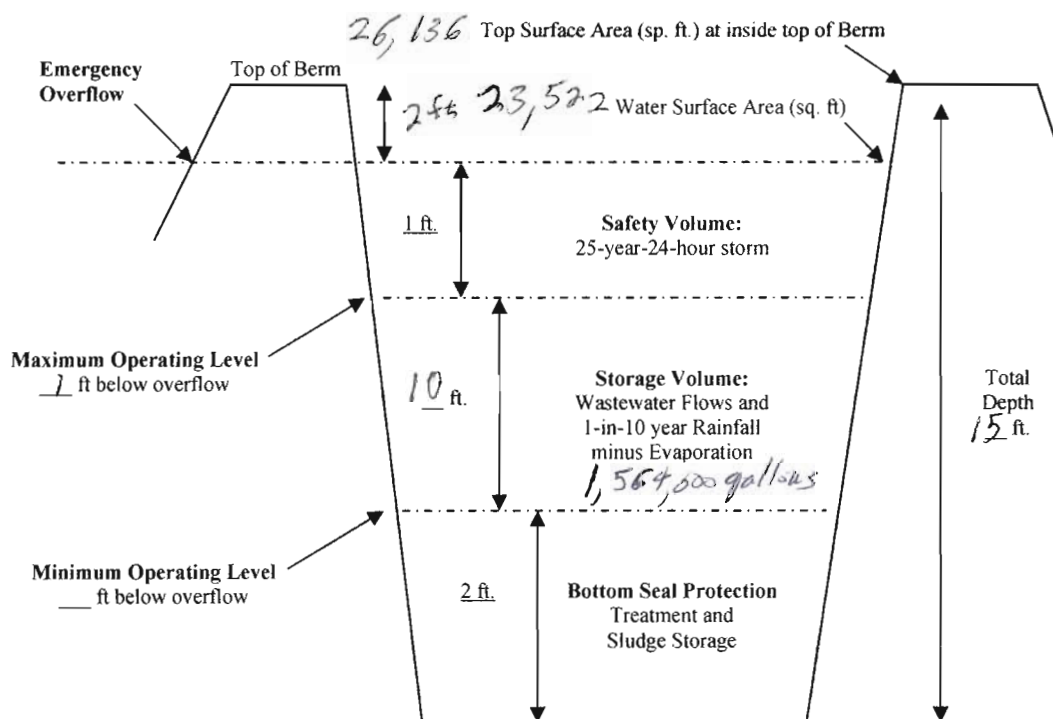
DEFINITION OF TERMS (REFER TO THE PROFILE SKETCH ABOVE).

- Freeboard is depth from top of berm to emergency spillway (minimum 1 foot);
- Safety Volume is depth for 25-year, 24-hour storm (minimum of 1 foot);
- Maximum Operating Level is at bottom of the safety volume (minimum of 2 feet below top of berm).
- Minimum Operating Level is 2 feet above bottom of lagoon for seal protection per 10 CSR 20-8.
The minimum operating level may be greater than 2 feet when additional treatment volume is included.
- Storage Volume and days storage are based on the volume between Minimum and Maximum Operating Levels.
- Total Depth is from top of berm to bottom of basin including freeboard.

ATTACHMENT A

(To be included with Form I)

Lagoon or Storage Basin ⁴ PROFILE SKETCH



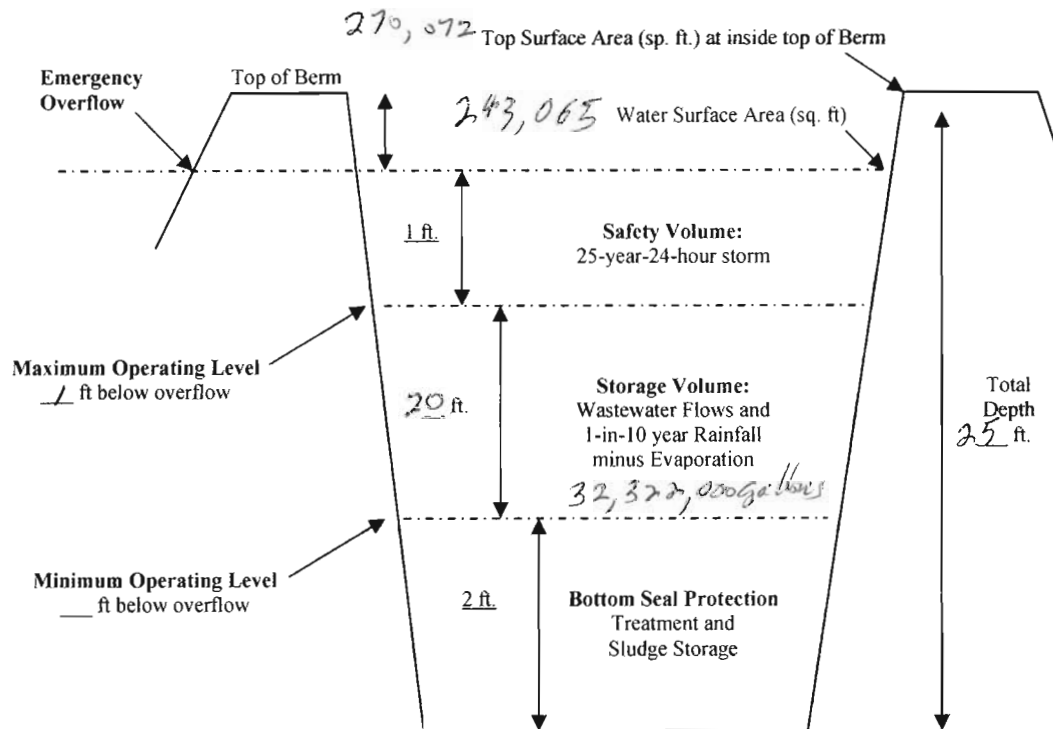
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ATTACHMENT A

(To be included with Form I)

Lagoon or Storage Basin ⁵ PROFILE SKETCH



Total Available
Storage = 36,688,300 gal

DEFINITION OF TERMS (REFER TO THE PROFILE SKETCH ABOVE).

- Freeboard is depth from top of berm to emergency spillway (minimum 1 foot);
- Safety Volume is depth for 25-year, 24-hour storm (minimum of 1 foot);
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The minimum operating level may be greater than 2 feet when additional treatment volume is included.
- Storage Volume and days storage are based on the volume between Minimum and Maximum Operating Levels.
- Total Depth is from top of berm to bottom of basin including freeboard.

Runoff from Design Storm - 10 year 24-Hour Rainfall = 5.1 inches

Watershed - Pasture 70.5 acres, Runoff Coefficient = 0.15
Sandy Soil (Tailings)

$$\text{Avg. Annual Runoff} = \frac{5.1 \text{ inches}}{12 \text{ in/ft}} \times 70.5 \text{ ac} \times \frac{43,560 \text{ sf}}{\text{ac}} \times \frac{7.48 \text{ gal}}{\text{sf}} \times 0.15 =$$

$$= 14,643,397 \text{ gallons per year}$$

Available Storage = 36,688,300 gallons, Safety Factor 2.5

Average Annual Precipitations Days per NOAA - 113 days

Using a 100 day irrigation plan

$$\text{Daily Application Rate} = 14,643,397 \text{ gals/100 days}$$

$$= 146,434 \text{ gpd}$$

$$\text{Using an 8 hr day} = 18,304 \text{ gal/hr} = 305 \text{ gpm}$$

With 70.5 acres of hand Application Area

$$\frac{146,434 \text{ gal}}{\text{day}} \times \frac{\text{sf}}{7.48 \text{ gal}} \times \frac{1 \text{ sf}}{70.5 \text{ ac} \times 43,560 \text{ sf}} = 0.006 \text{ f/day}$$

$$= 0.075 \text{ in/day Application Rate}$$



**ST. FRANCOIS COUNTY
ENVIRONMENTAL CORPORATION
Missouri State Operating Permit No.
MO-0108774**

**Land Application Irrigation
Operating Manual
St. Francois County, Missouri**

**Prepared for:
St. Francois County Environmental Corp.
200 Landfill Road
Park Hills, MO 63601**

November 2014

**Prepared By:
GREDELL Engineering Resources, Inc.
636 W. Republic Road, Suite D-100
Phone: (417) 890-6200
Fax: (417) 890-6200**

St. Francois County Environmental Corp.
Operating Manual
St. Francois County, Missouri
November 2014

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1.0. INTRODUCTION

This land application irrigation operating manual (operating manual) has been prepared for St. Francois County Environmental Corporation (SFCEC). SFCEC owns and operates a permitted solid waste transfer station and recycling center adjacent to the closed sanitary landfill. The facility is regulated by the Missouri Department of Natural Resources (MDNR). Any questions related to the operation or regulation of the facility should be referred, via the facility manager, to:

St. Francois County Environmental Corp.
200 Landfill Road
Park Hills, Missouri 63601
573-431-4768

and

Missouri Department of Natural Resources
Southeast Regional Office
1 W. St. Joseph Street
P.O. Box 366
Perryville, Missouri 63775
573-547-9357

The purpose of this operating manual is to instruct and assist the operators in operating the facility land application irrigation system in a safe and efficient manner in accordance with the Missouri Water Protection Program and Solid Waste Management Law and Rules, as applicable. Stormwater runoff from the SFCEC property is collected and detained in a series of five (5) retention basins or sedimentation ponds (See SHEET # 1 of 1 at the end of this manual).

The closed sanitary landfill is located on approximately 70.5 acres Park Hills, MO in the SE ¼ NW ¼ of Section 36, Township 37 N, Range 4 E, in St. Francois County. The site is located on the north side of Landfill Road, with its west permit boundary approximately 300 feet east of the Big River. The property address is 200 Landfill Road, Park Hills, MO 63601.

All references to "Operator" in this document shall refer to any person authorized by the facility manager to be responsible for any aspect of work on any given day or shift.

In conjunction with this irrigation operating manual, the Operator should have the following documents available for reference:

1. Missouri State Operating Permit No. MO-0108774 issued to SFCEC.
2. Current Missouri Solid Waste Management Law and Rules.
3. Other federal or state rules or regulations, as may be applicable.

2.0 SITE DESCRIPTION

The site encompasses approximately 70.5 acres of closed sanitary landfill with well-established vegetation. The 50 acre sanitary landfill was closed on October 8, 1993. The landfill is capped with 2 feet of compacted clay material and seeded. The landfill site is currently utilized for grassland. The facility currently has an NPDES operating permit (MO-0108774) with two permitted active outfalls (Outfalls # 002, 003) and two active permitted monitoring points (Outfalls # 004, 005). Outfall 001 has been terminated. Outfall 002 is located approximately 500 feet east of the site entrance on the south side of the private road. Outfall 003 is located approximately 1,500 feet east of the site entrance on the south side of the private road in the southeast corner of the property. Outfalls 004 and 005 are located along the Big River to monitor flows upstream and downstream from Outfalls # 002 and 003 of the property. The site currently contains five individual sedimentation ponds to control and manage stormwater runoff from the distinct drainage areas and to prevent discharge of stormwater through Outfalls # 002 and 003. During periods of non-precipitation and frozen ground conditions the facility operator utilizes a pump and irrigate system to land apply the stormwater runoff accumulated in the sedimentation ponds onto the closed landfill area grassland.

3.0 OPERATIONAL PROCEDURES

The facility will be managed to mitigate the discharge of stormwater from the site. Stormwater that has accumulated in the sedimentation ponds will be removed by pumping and irrigating it back onto the closed landfill grassland. If any discharge from the site should occur it shall be monitored in accordance with the facility stormwater discharge permit MO-0108774. However, the objective of the facility is to prevent any discharge of stormwater runoff via irrigation of the accumulated stormwater runoff back onto the closed landfill grassland area.

The sedimentation ponds are to primarily function as dry detention basins. All sedimentation ponds shall maintain a minimum freeboard of 1 foot below the emergency spillway during a 25-year 24-hour precipitation event and 2 feet below the emergency spillway at a normal operating level. The ponds shall be dry (empty), to the extent feasible, prior to an anticipated precipitation event. Following each precipitation event as the open grassland area dries and conditions permit the application of accumulated runoff without subsequent runoff of the irrigation water applied, collected stormwater will be pumped from the ponds and applied to the site. Irrigation will not occur within 24-hours following a precipitation event to mitigate stormwater runoff due to soil saturation. The site currently utilizes an irrigation system consisting of portable pumps and moveable gated pipe segments. When needed a rotary sprinkler irrigation gun will be utilized to supplement the gated pipe system. The equipment utilized is capable of meeting the design flow capacity of 18,304 gallons per hour or approximately 305 gallons per minute. The emergency spillways of each sedimentation pond direct overflow to a permitted outfall should the land application irrigation system fail to manage accumulated stormwater runoff.

No discharge of stormwater runoff is anticipated but if a discharge should occur it will be sampled, monitored and reported in accordance with the facility's discharge permit MO-0108774.

4.0 WATER QUALITY

The facility has an NPDES permit for stormwater discharge from the MDNR Water Protection Program. The following sub-sections discuss the control and handling of the various potential waste waters possibly generated during facility operation.

4.1 Spill Containment

Any liquid spills will be contained and cleaned up to the extent possible. In the event of an accidental spillage of a reportable quantity of wastewater or contaminating liquid, the MDNR's Water Protection Program in Jefferson City and the MDNR's Southeast Regional Office will be notified by the end of the operating day. Telephone numbers for these agencies are kept current and available in the office.

4.2 Stormwater Management

The site is graded to direct stormwater runoff to various sedimentation ponds located on the facility. Stormwater collected in these sedimentation basins shall be utilized to irrigate the site and prevent stormwater discharge via Outfalls 002 and 003. In the unlikely event of stormwater discharges from the site via Outfalls 002 and 003 they will be sampled, analyzed and the results reported to the Department in accordance with the site specific NPDES permit. Sampling and reporting will be completed to verify any discharge of stormwater meets the water quality requirements of the state site specific water quality discharge permit.

4.3 Wastewater Management

No stormwater is allowed to come into contact with solid waste or recyclables passing through the solid waste transfer station and recycling center. If liquids are released from materials processed at the transfer station or recycling center, they drain into floor drains and are managed in accordance with provisions contained in the Missouri Solid Waste Management Law and the Missouri Clean Water Act. No wastewater is allowed to enter the stormwater runoff detention system and land application irrigation system.

5.0 EQUIPMENT

The land application irrigation equipment requirements vary with the volume of stormwater runoff resulting from annual precipitation events. However, in addition to the facility manager's on site pumping and irrigation equipment, additional local rental equipment is available within a 24-hour notice.

5.1 Equipment

At a minimum, the operation of the facility will require a portable pump and a gated pipe to irrigate collected stormwater at the design rate of 18,304 gallons per hour or approximately 305 gallons per minute to distribute the accumulated runoff over the approximate 70 acre grassland area available.

5.2 Equipment Maintenance

Facility staff will perform routine equipment maintenance and the majority of the repair work. The recommended maintenance programs of the equipment manufacturers will be followed by the facility.

The Manager's equipment maintenance personnel will develop a schedule of recommended maintenance activities identified for each piece of equipment. The scheduled maintenance activities will generally follow the equipment manufacturer's recommendations. The schedule will be checked at the beginning of each week and the appropriate maintenance activities completed.

A maintenance log will be maintained by the Operator for each piece of equipment. The log will include dates, equipment hours, and descriptions of repairs and maintenance activities for the piece of equipment. Specific notes of interest concerning the equipment will be included in the log. The history developed in the log will help to schedule major maintenance and repair items.

A check or evaluation of the equipment will be performed on a regularly scheduled basis.

6.0 SAFETY

SFCEC will be operated and maintained in a safe manner to protect the health and safety of personnel associated with the operation. Communications equipment, such as telephones or cell phones, to summon emergency services will be available and operable on a daily basis.

6.1 Safety Features for Operators

The facility is designed with features that promote the safe operation of both equipment operators and collection and transport vehicle drivers. These features include, but are not limited to, the following:

- Personal safety devices, including but not limited to: hard hats, safety glasses and safety shoes, shall be utilized by all persons on the premises where needed.
- Protective gloves, safety glasses, hard hats, hearing protection, dust respirators, eye washing liquid, etc. are available in the office building for personnel working at the transfer station.

- Properly graded and maintained roadways and maneuvering areas will be provided.
- Backup alarms and safety-inspected vehicles will be utilized.
- Annual inspections of fire extinguishers and other safety devices will assure they are in good repair and working order.

7.0 RECORDS

SFCEC will develop and maintain required records of operation. At a minimum, the following records will be kept:

- Inches of precipitation received per event;
- Major operational problems, complaints, or difficulties;
- Frequency, duration, and estimated volume of accumulated stormwater runoff land applied via the irrigation system operation;
- Pumping and irrigation equipment maintenance;

These records will be maintained by the facility manager. Logbooks and ledgers will be utilized to record daily events. Volumes of stormwater runoff accumulated and irrigated will be recorded to provide accurate records of the amount of precipitation received and the amount of volume of irrigation.