

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-0126161
Owner:	Golden Triangle Energy, L.L.C.
Address:	15053 Highway 111, Craig, MO 64437
Continuing Authority:	Same as above
Address:	Same as above
Facility Name:	Golden Triangle Energy, L.L.C.
Facility Address:	15053 Highway 111, Craig, MO 64437
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

Ethanol manufacturer - SIC code #2869, #2085, #2079, and #2048. NAICS #325193, #312140, #311224, and #311119


See Page 2

This permit authorizes only wastewater or 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, 2020
Effective Date

March 31, 2025
Expiration Date


Edward B. Galbraith, Director, Division of Environmental Quality


Chris Wieberg, Director, Water Protection Program

FACILITY DESCRIPTION (CONTINUED)

Ethanol production from corn and purchased ethanol. Beverage and high quality industrial grade ethanol are the primary products. Impurities removed are sold in the fuel grade ethanol market. Byproduct spent grains in wet or dried form, with thin stillage evaporated syrup are sold to the feed market. Corn oil is extracted from the stillage and sold to various markets. Denaturants are added to some high quality industrial grades under 27 CFR 21.151 specialty denatured spirits. Gasoline denaturant is added to the fuel grade ethanol product.

Storage Basins:

Freeboard for basin: 2 feet.

Storage volume (minimum to maximum water levels): 263,333 gallons

Permitted Feature #001 – Detention basin for stormwater runoff from production plant area, sediment is retained in basin.

Legal Description: NE ¼, NW ¼, Sec. 13, T62N, R40W, Holt County
UTM Coordinates: X = 298672, Y = 4451252
Receiving Stream: Tributary to Old Channel Tarkio River
First Classified Stream and ID: 100K Extent-Remaining Streams (C) (3960)
USGS Basin & Sub-watershed No.: (10240005-0903)

Permitted Feature #002 – Process wastewater from #1 and #2 cooling towers blow down and reverse osmosis reject water.

Legal Description: NE ¼, NW ¼, Sec. 13, T62N, R40W, Holt County
UTM Coordinates: X = 298510, Y = 4451294
Receiving Stream: Tributary to Old Channel Tarkio River
First Classified Stream and ID: 100K Extent-Remaining Streams (C) (3960)
USGS Basin & Sub-watershed No.: (10240005-0903)
Design Flow: 0.29 MGD
Average Flow: 0.21 MGD

Permitted Feature #003– Process wastewater from #1 and #2 boilers blow down, green sand backwash, ozone sludge decant, and rail car washout.

Legal Description: NE ¼, NW ¼, Sec. 13, T62N, R40W, Holt County
UTM Coordinates: X = 298558, Y = 4451294
Receiving Stream: Tributary to Old Channel Tarkio River
First Classified Stream and ID: 100K Extent-Remaining Streams (C) (3960)
USGS Basin & Sub-watershed No.: (10240005-0903)
Design Flow: 0.062 MGD
Average Flow: 0.054 MGD

Permitted Feature #004– Land application, North site 20 acres.

Legal Description: NE ¼, NW ¼, Sec. 13, T62N, R40W, Holt County
UTM Coordinates: X = 298792, Y = 4451436
Receiving Stream: Tributary to Old Channel Tarkio River
First Classified Stream and ID: 100K Extent-Remaining Streams (C) (3960)
USGS Basin & Sub-watershed No.: (10240005-0903)

Permitted Feature #005– Land application, South site 30 acres

Legal Description: SE ¼, NW ¼, Sec. 13, T62N, R40W, Holt County
UTM Coordinates: X = 298754, Y = 4451092
Receiving Stream: Tributary to Old Channel Tarkio River
First Classified Stream and ID: 100K Extent-Remaining Streams (C) (3960)
USGS Basin & Sub-watershed No.: (10240005-0903)

Land Application:

Irrigation areas: 50 acres available

Equipment type: Contract applicator

Vegetation: Row crops

Application rate is based on: Plant Available Nitrogen (PAN)

OUTFALL #002 Wastewater Discharge		TABLE A-2 FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS				
The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective upon issuance and remain in effect until expiration of the permit. Such discharges shall be controlled, limited, and monitored by the permittee as specified below:						
EFFLUENT PARAMETERS	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
LIMIT SET: M						
PHYSICAL						
Flow	MGD	*		*	once/month	24 hr. total
Temperature	°F	90			once/month	measured
CONVENTIONAL						
Chlorine, Total Residual ‡	µg/L	17 (130ML)		8 (130ML)	once/month	grab
Conductivity	µmhos/cm	*		*	once/month	grab
pH †	SU	6.5-9.0		6.5-9.0	once/month	grab
METALS						
Arsenic, Total Recoverable	µg/L	20		20	once/month	grab
Iron, Total Recoverable	µg/L	1000		400	once/month	grab
Manganese, Total Recoverable	µg/L	*		*	once/month	grab
NUTRIENTS						
Total Kjeldahl Nitrogen	mg/L	*		*	once/month	grab
Nitrogen, ammonia total (as N)	mg/L	*		*	once/month	grab
Nitrate + Nitrites as N	mg/L	*		*	once/month	grab
Phosphorous, Total	mg/L	*		*	once/month	grab
OTHER						
Chlorides plus Sulfates	mg/L	1000	1000	once/month	grab	
MONITORING REPORTS SHALL BE SUBMITTED <u>MONTHLY</u> ; THE FIRST REPORT IS DUE <u>OCTOBER 28, 2020</u> . THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						
LIMIT SET: WA						
OTHER						
Whole Effluent Toxicity, Acute See Special Condition #1	TU _c	*			once/year	24 hr. composite
MONITORING REPORTS SHALL BE SUBMITTED <u>ANNUALLY</u> ; THE FIRST REPORT IS DUE <u>JANUARY 28, 2021</u> . THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						

OUTFALL #003 <i>Wastewater Discharge</i>	TABLE A-3 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 upon issuance and remain in effect until expiration of the permit. Such discharges shall be controlled, limited, and monitored by the permittee as specified below:						
EFFLUENT PARAMETERS	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
LIMIT SET: M						
PHYSICAL						
Flow	MGD	*		*	once/month	24 hr. total
Temperature	°F	90			once/month	measured
CONVENTIONAL						
Chlorine, Total Residual ‡	µg/L	17 (130ML)		8 (130ML)	once/month	grab
Conductivity	µmhos/cm	*		*	once/month	grab
pH †	SU	6.5-9.0		6.5-9.0	once/month	grab
METALS						
Aluminum, Total Recoverable	µg/L	750		750	once/month	grab
Arsenic, Total Recoverable	µg/L	20		20	once/month	grab
Iron, Total Recoverable	µg/L	1000		400	once/month	grab
Manganese, Total Recoverable	µg/L	*		*	once/month	grab
NUTRIENTS						
Total Kjeldahl Nitrogen	mg/L	*		*	once/month	grab
Nitrogen, ammonia total (as N)	mg/L	*		*	once/month	grab
Nitrate + Nitrites as N	mg/L	*		*	once/month	grab
Phosphorous, Total	mg/L	*		*	once/month	grab
OTHER						
Chlorides plus Sulfates	mg/L	1000		1000	once/month	grab
MONITORING REPORTS SHALL BE SUBMITTED <u>MONTHLY</u> ; THE FIRST REPORT IS DUE <u>OCTOBER 28, 2020</u> . THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						
LIMIT SET: WA						
OTHER						
Whole Effluent Toxicity, Acute See Special Condition #1	TU _c	*			once/year	24 hr. composite
MONITORING REPORTS SHALL BE SUBMITTED <u>ANNUALLY</u> ; THE FIRST REPORT IS DUE <u>JANUARY 28, 2021</u> . THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (CONTINUED)

OUTFALL #002, #003 Industrial sludge		TABLE A-4 FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS				
The permittee is authorized to land apply to permitted feature(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective upon issuance and remain in effect until expiration of the permit. Such application shall be controlled, limited and monitored by the permittee as specified below:						
EFFLUENT PARAMETERS	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
LIMIT SET: S						
Land Applied Sludge ¥						
pH	SU	*			once/year	grab
Total Kjeldahl Nitrogen	mg/L	*			once/year	grab
Nitrate Nitrogen as N	mg/L	*			once/year	grab
Nitrogen, ammonia total (as N)	mg/L	*			once/year	grab
Phosphorous, Total	mg/L	*			once/year	grab
MONITORING REPORTS SHALL BE SUBMITTED <u>ANNUALLY</u> ; THE FIRST REPORT IS DUE JANUARY 28, 2021. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						

Permitted Features #004, #005 <i>Land application</i>		TABLE A-5 LAND APPLICATION FIELD LIMITATIONS AND MONITORING REQUIREMENTS				
The permittee is authorized to land apply to permitted feature(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective upon issuance and remain in effect until expiration of the permit. Such application shall be controlled, limited and monitored by the permittee as specified below:						
EFFLUENT PARAMETERS	UNITS	FINAL EFFLUENT LIMITATIONS		MONITORING REQUIREMENTS		
		DAILY MAXIMUM	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE	
Limit Set: LA						
INDUSTRIAL SLUDGE APPLICATION X						
Application Area	acres	*		once/day	measured	
Application Rate	gal./Acre	*		once/day	measured	
Volume Irrigated	gallons	*		once/day	measured	
MONITORING REPORTS SHALL BE SUBMITTED <u>BY THE 28TH DAY OF THE MONTH FOLLOWING LAND APPLICATION.</u> THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE MOUNTS.						
SOIL MONITORING						
pH (salt) ☐	SU	*		once/permit cycle	modified composite ▼	
Phosphorus, Bray P1 method	mg/kg ≈	*		once/permit cycle	modified composite ▼	
MONITORING REPORTS SHALL BE SUBMITTED <u>ONCE PER PERMIT CYCLE</u> ; THE FIRST REPORT IS DUE <u>JANUARY 28, 2024.</u> THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						

* Monitoring and reporting requirement only

** Monitoring and reporting requirement with benchmark. See Special Conditions for additional requirements.

‡ Chlorine, Total Residual. This permit contains a Total Residual Chlorine (TRC) limit.

- (a) This effluent limit is below the minimum quantification level of the most sensitive EPA approved CLTRC methods. The Department has determined the current acceptable minimum level (ML) for total residual chlorine to be 130 µg/L when using the DPD Colorimetric Method #4500 – CL G. from Standard Methods for the Examination of Waters and Wastewater. The permittee will conduct analyses in accordance with this method, or equivalent, and report actual analytical values. Measured values greater than or equal to the minimum quantification level of 130 µg/L will be considered violations of the permit and values less than the minimum quantification level of 130 µg/L will be considered to be in compliance with the permit limitation. The minimum quantification level does not authorize the discharge of chlorine in excess of the effluent limits stated in the permit.
- (b) Do not chemically dechlorinate if it is not needed to meet the limits in your permit.

† pH: the facility will report the minimum and maximum values; pH is not to be averaged.

¥ Report as “No Discharge” if no sludge sampling and no land application does not occur during the report period.

✕ Reporting is only required for permitted features where land application occurred during the month. If no land application occurs at a permitted feature, no reporting is required.

▼ Sample the upper 6 to 8 inches of soil. Composite samples shall be collected from each permitted land application site. See Section D. Land Application System Condition #1(j) Soil Monitoring for additional guidance.

≈ Some soils test results may be in lbs./acre. To convert to ppm multiply lbs./acre by 0.5 to get ppm.

** Precipitation Event Monitoring Requirement: all samples shall be collected from a discharge resulting from a precipitation event greater than 0.1 inches in magnitude and occurring 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.

◇ Quarterly sampling

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

B. STANDARD CONDITIONS

In addition to the 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. Acute Whole Effluent Toxicity (WET) tests shall be conducted as follows:

- Freshwater Species and Test Methods: Species and short-term test methods for estimating the chronic toxicity of NPDES effluents are found in the most recent edition of *Short-term Methods for Estimating the Chronic Toxicity of Effluents and Receiving Waters to Freshwater Organisms* (EPA/821/R-02/013; Table IA, 40 CFR Part 136). The permittee shall concurrently conduct 7-day, static, renewal toxicity tests with the following species:
 - The fathead minnow, *Pimephales promelas* (Survival and Growth Test Method 1000.0).
 - The daphnid, *Ceriodaphnia dubia* (Survival and Reproduction Test Method 1002.0).
- Chemical and physical analysis of the upstream control sample and effluent sample shall occur immediately upon being received by the laboratory, prior to any manipulation of the effluent sample beyond preservation methods consistent with federal guidelines for WET testing that are required to stabilize the sample during shipping. Where upstream receiving water is not available or known to be toxic, other approved control water may be used.
- Test conditions must meet all test acceptability criteria required by the EPA Method used in the analysis.
- The Allowable Effluent Concentration (AEC) is 100%, the dilution series is: 100%, 50%, 25%, 12.5%, and 6.25%.
- All chemical and physical analysis of the effluent sample performed in conjunction with the WET test shall be performed at the 100% effluent concentration.
- The facility must submit a full laboratory report for all toxicity testing. The report must include a quantification of chronic toxic units ($TU_c = 100/IC_{25}$) reported according to the *Methods for Measuring the Chronic Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms* chapter on report preparation and test review. The 25 percent Inhibition Effect Concentration (IC_{25}) is the toxic or effluent concentration that would cause 25 percent reduction in mean young per female or in growth for the test populations.

2. Spills, Overflows, and Other Unauthorized Discharges.

- Any spill, overflow, or other discharge(s) not specifically authorized above are unauthorized discharges.

C. SPECIAL CONDITIONS (CONTINUED)

- (b) Should an unauthorized discharge cause or permit any contaminants to discharge or enter waters of the state, the unauthorized discharge must be reported to the regional office as soon as practicable but no more than 24 hours after the discovery of the discharge. If the spill or overflow needs to be reported after normal business hours or on the weekend, the facility must call the Department's 24 hour spill line at 573-634-2436.
3. Electronic Discharge Monitoring Report (eDMR) Submission System.
- (a) Discharge Monitoring Reporting Requirements. The permittee must electronically submit compliance monitoring data via the eDMR system. Standard Conditions Part I, Section B, #7 indicates the eDMR system is currently the only Department approved reporting method for this permit.
- (b) Programmatic Reporting Requirements. All reports 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. 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
- (1) Schedule of Compliance Progress Reports;
- (2) Whole Effluent Toxicity (WET) Reports;
- (3) Collection System Maintenance Annual Reports;
- (4) Sludge/Biosolids Annual Reports;
- i. In addition to the annual Sludge/Biosolids report submitted to the Department, the permittee must submit Sludge/Biosolids Annual Reports electronically using EPA's NPDES Electronic Reporting Tool ("NeT") (<https://cdx.epa.gov/>).
- (5) Any additional report required by the permit excluding bypass reporting.
- (c) 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) Bypass reporting, See Special Condition #2 for 24-hr. bypass reporting requirements.
- (d) Electronic Submission: access the eDMR system via: <https://edmr.dnr.mo.gov/edmr/E2/Shared/Pages/Main/Login.aspx>
- (e) Electronic Reporting Waivers. 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 the approved electronic reporting waiver is effective.
4. Stormwater Pollution Prevention Plan (SWPPP).
- The facility's SIC code or description is found in 40 CFR 122.26(b)(14) and/or 10 CSR 20-6.200(2) and hence shall implement a Stormwater Pollution Prevention Plan (SWPPP) which must be prepared and implemented upon permit effective date. 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 annually or if site conditions affecting stormwater change. The permittee shall select, install, use, operate, and maintain the Best Management Practices prescribed in the SWPPP in accordance with the concepts and methods described in: *Developing Your Stormwater Pollution Prevention Plan, A Guide for Industrial Operators*, (EPA 833-B-09-002) published by the EPA in 2015 https://www.epa.gov/sites/production/files/2015-11/documents/swppp_guide_industrial_2015.pdf The purpose of the 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 at preventing pollution [10 CSR 20-2.010(56)] to waters of the state. Corrective action describes the steps the facility took to eliminate the deficiency.
- 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) A map with all outfalls and structural BMPs marked.
- (c) A schedule for at least 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 (deficiencies projected to take longer than 14 days to correct) must be reported as an uploaded attachment through the eDMR system with the DMRs. The initial report shall consist of the deficiency noted, the proposed remedies, the interim or temporary remedies (including proposed timing of the placement of the interim measures), and an estimate of the timeframe needed to wholly complete the repairs or construction. If required by the Department, the permittee shall work with the regional office to determine the best course of action. The permittee should consider temporary structures to control stormwater runoff. The facility shall correct the major structural deficiency as soon as reasonably achievable.

C. SPECIAL CONDITIONS (CONTINUED)

- iv. All actions taken to correct the deficiencies shall be included with the written report, including photographs, and kept with the SWPPP. Additionally, corrective action of major structural deficiencies shall be reported as an uploaded attachment through the eDMR system with the DMRs.
 - v. BMP failure causing discharge through an unregistered outfall is considered an illicit discharge and must be reported in accordance with Standard Conditions Part I.
 - vi. 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 personnel upon request. Electronic versions of the documents and photographs are acceptable.
- (d) A provision for designating an individual to be responsible for environmental matters and a provision for providing training to all personnel involved in housekeeping, material handling (including but not limited to loading and unloading), storage, and staging of all operational, maintenance, storage, and cleaning areas. Proof of training shall be submitted upon request by the Department.
- 5. Site-wide minimum Best Management Practices (BMPs). At a minimum, the permittee shall adhere to the following:
 - (a) Prevent the spillage or loss of fluids, oil, grease, fuel, etc. from vehicle maintenance, equipment cleaning, warehouse activities, and other areas, and thereby prevent the contamination of stormwater from these substances.
 - (b) Ensure adequate provisions are provided to prevent surface water intrusion into the wastewater storage basin, to divert stormwater runoff around the wastewater storage basin, and to protect embankments from erosion.
 - (c) Provide collection facilities and arrange for proper disposal of waste products including but not limited to petroleum waste products, and solvents.
 - (d) Store all paint, solvents, petroleum products and petroleum waste products (except fuels), and storage containers (such as drums, cans, or cartons) so 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. Spill records should be retained on-site.
 - (e) Provide good housekeeping practices on the site to keep trash from entry into waters of the state.
 - (f) Provide sediment and erosion control sufficient to prevent or control sediment loss off of the property.
- 6. Stormwater Benchmarks. This permit stipulates pollutant benchmarks applicable to your stormwater discharges.
 - (a) 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 the 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 the pollutant in your stormwater discharge(s).
 - (b) Any time a benchmark exceedance occurs, a Corrective Action Report (CAR) must be completed. A CAR is a document recording the efforts undertaken by the facility to improve BMPs to meet benchmarks in future samples. CARs must be retained with the SWPPP and be 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.
- 7. 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 Clean Water Act Sections 301(b)(2)(C) and (D), §304(b)(2), and §307(a) (2), 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. This permit may be modified, revoked and reissued, or terminated for cause. The filing of a request by the permittee for a permit modification, termination, notice of planned changes, or anticipated non-compliance does not stay any permit condition.
- 8. All outfalls and permitted features must be clearly marked in the field.
- 9. Report no discharge when a discharge does not occur during the report period. It is a violation of this permit to report no-discharge when a discharge has occurred.
- 10. 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:

C. SPECIAL CONDITIONS (CONTINUED)

- (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).
11. Reporting of Non-Detects.
- (a) An analysis conducted by the permittee or their contracted laboratory shall be conducted in such a way 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 or the reporting limit of the laboratory. Reporting as “non-detect” without also including the detection/reporting 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 “<” symbol and the laboratory’s detection/reporting limit (e.g. <6).
 - (d) See sufficiently sensitive method requirements in Standard Conditions Part I, Section A, #4 regarding proper detection limits used for sample analysis.
 - (e) When a parameter is not detected above ML, the permittee must report the data qualifier signifying less than ML for that parameter (e.g., < 50 µg/L, if the ML for the parameter is 50 µg/L). For reporting an average based on a mix of values detected and not detected, assign a value of “0” for all non-detects for that reporting period and report the average of all the results.
12. Failure to pay fees associated with this permit is a violation of the Missouri Clean Water Law (644.055 RSMo).
13. This permit does not cover land disturbance activities.
14. This permit does not authorize the placement of fill materials in flood plains, placement of solid materials into any waterway, the obstruction of stream flow, or changing the channel of a defined drainage course. The facility must contact the U.S. Army Corps of Engineers (Corps) to determine if a CWA §404 Department of Army permit is required.
15. Renewal Application Requirements.
- (a) This facility shall submit an appropriate and complete application to the Department no less than 180 days from the expiration date listed on page 1 of the permit.
 - (b) Application materials shall include complete Form A, Form C, and Form R. If the form names have changed, then the facility should assure they are submitting the correct forms as required by regulation.
 - (c) The facility must sample the stormwater outfalls and provide analysis for every parameter contained in the permit at any outfall for at the site in accordance with 10 CSR 20-6.200(2)(C)1.E(I) and (II)
 - (d) The facility may use the electronic submission system to submit the application to the Program.
 - (e) This facility must submit any corrective action reports completed for the last permit term if a benchmark exceedance occurred.

D. LAND APPLICATION CONDITIONS

These special conditions do not apply to fertilizer products that have received a current exemption under the Missouri Clean Water Law and regulations in 10 CSR 20-6.015(3)(B)8., and are land applied in accordance with that exemption.

1. Land Application Requirements.

- (a) There shall be no discharge of wastewater or sludge from land application areas except for discharges of agricultural stormwater.

D. LAND APPLICATION CONDITIONS (CONTINUED)

- (b) If land application sites listed in this permit are also included as land application sites in another permit, the wastewater and sludge applications from other sources shall be included in the application rates in the facility description. Records of the amount and application rate of wastewater or sludge from other sources must be kept.
 - (c) Public Access Restrictions. This permit does not authorize application of wastewater to public use areas.
 - (d) No land application shall occur when the soil is frozen, snow covered, or saturated. There shall be no application during a precipitation event or if a precipitation event that is likely to create runoff is forecasted to occur within 24 hours of a planned application.
 - (e) Land application shall occur only during daylight hours.
 - (f) Land application fields shall be checked at least once daily during land application for runoff and saturated soil conditions. If observed cease land application activities. Sites that utilize spray irrigation shall monitor for the drifting of spray across property lines.
 - (g) Setback distances from sensitive features. There shall be no land application within:
 - (1) 300 feet from any sinkhole, losing stream, or any other physiographic structure with a conduit to groundwater;
 - (2) 300 feet of any potable water supply well not located on the property, adequate protections shall be implemented and maintained for any potable water supply well located within the application area;
 - (3) 150 feet of any dwelling, residence, public building, or public use area (excluding roadways);
 - (4) 100 feet of any classified or unclassified gaining perennial or intermittent stream, any wetland, or any public or privately owned pond or lake;
 - (5) 50 feet inside the property line;
 - (6) the 10 year floodplain;
 - (h) Sludge should not be applied to fields used to grow food crops for human consumption to be eaten raw, such as leafed vegetables or root crops.
 - (i) Soil Monitoring.
 - (1) Composite soil samples shall be collected from each field listed in this permit where land application has occurred in the last 12 months. No land application shall occur on fields listed in this permit if soil sample results are more the five (5) years old.
 - (2) Soil sampling shall be in accordance with University of Missouri (MU) Guides G9215, Soil Sampling Pastures or G9217, Soil Sampling Hayfields and Row Crops or other methods approved by the department. The recommendation of one composite sample per 20 acres in G9215 and G9217 is not required by this permit, however, this is a useful method to identify soil fertility fluctuations in large fields due to past management practices, soil type, and variability of crop yields. There shall be at least one composite sample per 80 acres.
 - (3) Testing shall conform to Recommended Chemical Soil Testing Procedures for North Central Region (North Central Regional Research Publication 221 Revised), or Soil Testing in Missouri (MU Extension Guide EC923), or other methods approved by the department.
 - (j) Sludge land applications shall not exceed agronomic rates to ensure agricultural use of nutrients and prevent contamination of surface and groundwater. The agronomic rate is the amount of sludge applied to a field to meet the fertilizer recommendation.
2. Annual Nutrient Loading Rate. Land applications shall use the following protocols to determine the amount of sludge to be applied. The annual nutrient loading rate may exceed the fertilizer recommendation of the crop grown by ten (10) percent.
- (a) The fertilizer recommendation shall be based on the following:
 - (1) The nutrient recommendation (nitrogen or phosphorus) for each crop. Recommendations can be found in University of Missouri Extension Guide EQ202 or from publications by other land grant universities in adjoining states,
 - (2) Realistic yield goal for each crop. Yield goals should be based on actual crop yield records from multiple years for each field. Good judgment should be used to counteract unusually high or low yields. If a field's yield history is not available the USDA county wide average or other approved source may be used, and
 - (3) The most recent soil test.
 - (b) Sludge applications shall be conducted according to one the following nutrient based management practices.
 - (1) Plant Available Nitrogen (PAN) based application. This method can be used when soil test phosphorus (P) levels are 120 pounds or less per acre using Bray P-1 test method, or if the field has been assessed by Missouri Phosphorus Index (P-index) with a low or medium rating. The amount of sludge to be applied shall be adjusted annually based on the PAN calculation using the current sludge nutrient analysis and the following:
 - (i) For non-legume crops, the nitrogen fertilizer recommendation shall be adjusted to account for nitrogen credits from a preceding legume crop and residual nitrogen from the previous year's application. Nitrogen removal rates can be found in EQ202.
 - (ii) For legume crops, the nitrogen removal capacity of the legume crops should be based on the estimated nitrogen content of the harvested crop as defined in EQ202 and a realistic yield goal. The estimated nitrogen content of the crop must be adjusted using nitrogen credits for residual nitrogen fertilizer from the previous year's application.

$$\text{PAN} = [\text{Ammonia Nitrogen} \times \text{volatilization factor}^*] + [\text{Organic Nitrogen} \times 0.2] + [\text{Nitrate Nitrogen}]$$

*Volatilization factor is 0.7 for surface application and 1 for subsurface application.

D. LAND APPLICATION CONDITIONS (CONTINUED)

- (2) Phosphorus based application. This method must be used when soil test phosphorus (P) levels are above 120 pounds per acre using Bray P-1 test method, or if the P-index rating is high. The amount of sludge to be applied shall be adjusted annually based the phosphorus content of the current sludge nutrient analysis and may be done applied according to one of the following methods;
 - (i) The annual amount of phosphorus applied shall not exceed the planned crop's phosphorus removal estimate from WQ430, or from publications by other land grant universities in adjoining states or,
 - (ii) Multi-year phosphorus applications. Sludge applications can exceed the annual planned phosphate removal estimate for the crop when a multi-year phosphorus application is utilized. The multi-year application must comply with the following conditions:
 - (a) The amount of sludge applied shall not exceed the nitrogen fertilizer recommendation or the estimated nitrogen removal capacity of the planned crop during the year of the application;
 - (b) The amount of phosphorus banked shall not exceed four years of the estimated crop removal rate for the planned crop rotation;
 - (c) The actual application rate shall not exceed the multi-year application rate; and
 - (d) No additional sludge applications shall occur until the applied phosphorus has been removed from the field by crop removal or harvest.
 - (3) No land application can occur if the P-index rating for a field is very high.
3. Record Keeping
 - (a) A daily land application log shall be kept on file at the permittee office location for each application site showing dates of application, weather condition (sunny, overcast, raining, below freezing etc...), soil moisture condition, application method.
 - (b) A record of monthly visual storage structure inspections.
 - (c) A record of land application field inspections.
 - (d) A record of all nutrient and PAN calculations.
 - (e) All records and monitoring results shall be maintained for at least five years and shall be made available to the department upon request.
 4. Annual Report on Land Application. An annual report is required in addition to other reporting requirements under Section A of this permit. The annual report shall be submitted by January 28 of each year. The report shall include, but is not limited to, a summary of the following:
 - (a) Record of maintenance and repairs during the year, average number of times per month the facility is checked to see if it is operating properly, and description of any unusual operating conditions encountered during the year;
 - (b) A summary for each field used for land application showing number of acres used number of days application occurred, crop grown and yield, and total amount of wastewater and/or sludge applied (gal. or tons/acre);
 - (c) Narrative summary of any problems or deficiencies identified, corrective action taken and improvements planned;
 - (d) For fields where total nitrogen application exceeded 150 pounds per acre, submit PAN calculations to document the applied nitrogen was be utilized;

E. NOTICE OF RIGHT TO APPEAL

If you were adversely affected by this decision, you may be entitled to pursue an appeal before the administrative hearing commission (AHC) pursuant to Sections 621.250 and 644.051.6 RSMo. To appeal, you must file a petition with the AHC within thirty days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed; if it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the AHC. Any appeal should be directed to:

Administrative Hearing Commission
U.S. Post Office Building, Third Floor
131 West High Street, P.O. Box 1557
Jefferson City, MO 65102-1557
Phone: 573-751-2422
Fax: 573-751-5018
Website: <https://ahc.mo.gov>

MISSOURI DEPARTMENT OF NATURAL RESOURCES
FACT SHEET
FOR THE PURPOSE OF RENEWAL
OF
MO-0126161
GOLDEN TRIANGLE ENERGY, L.L.C.

The Federal Water Pollution Control Act ("Clean Water Act" Section 402 Public Law 92-500 as amended) established the National Pollutant 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)(A)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 – <1 MGD
SIC Code(s): #2869, #2869, #2085, #2079, and #2048
NAICS Code(s): #325193, #312140, #311224, and #311119
Application Date: 05/13/2019
Expiration Date: 08/31/2019
Last Inspection: 05/10/2016

FACILITY DESCRIPTION:

Ethanol production from corn and purchased ethanol. Beverage and high quality industrial grade ethanol are the primary products. Impurities removed are sold in the fuel grade ethanol market. Byproduct spent grains in wet or dried form, with thin stillage evaporated syrup are sold to the feed market. Corn oil is extracted from the stillage and sold to various markets. Denaturants are added to some high quality industrial grades under 27 CFR 21.151 specialty denatured spirits. Gasoline denaturant is added to the fuel grade ethanol product.

The charter number for the continuing authority for this facility is LC0033084; this number was verified by the permit writer to be associated with the facility and precisely matches the continuing authority reported by the facility.

In accordance with 40 CFR 122.21(f)(6), the Department evaluated other permits currently held by this facility. This facility holds Operating Permit Number OP2020-009 through the Departments' Air Pollution Program.

PERMITTED FEATURES TABLE:

OUTFALL	AVERAGE FLOW	DESIGN FLOW	TREATMENT LEVEL	EFFLUENT TYPE
#001	Dependent upon precipitation	Dependent upon precipitation	BMPs	Stormwater
#002	0.21 MGD	0.29 MGD	Primary Treatment	Industrial wastewater
#003	0.054 MGD	0.062 MGD	Primary Treatment	Industrial wastewater
#004, #005	N/A	N/A	Land Application	Industrial sludge

FACILITY PERFORMANCE HISTORY & COMMENTS:

The electronic discharge monitoring reports were reviewed for the last five years. The facility had exceedances for arsenic, iron, and chlorides + sulfides.

PART II. RECEIVING WATERBODY INFORMATION

RECEIVING WATERBODY'S WATER QUALITY:

The receiving waterbody has no relevant water quality data available

303(d) LIST:

Section 303(d) of the federal Clean Water Act requires each state identify waters not meeting water quality standards and for which adequate water pollution controls have not been required. Water quality standards protect such beneficial uses of water as whole body contact (such as swimming), maintaining fish and other aquatic life, and providing drinking water for people, livestock, and wildlife. The 303(d) list helps state and federal agencies keep track of impaired waters not addressed by normal water pollution control programs. <http://dnr.mo.gov/env/wpp/waterquality/303d/303d.htm>

- ✓ Not applicable; Little Tarkio Creek was listed on the 1998 Missouri 303(d) List for sediment. It was removed from the 303(d) List when a TMDL was approved.

TOTAL MAXIMUM DAILY LOAD (TMDL):

A TMDL is a calculation of the maximum amount of a given pollutant a water body 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; Little Tarkio Creek is associated with the 2006 EPA approved TMDL for sediment.
 - This facility is considered to be a source of or has the potential to contribute to the above listed pollutant(s). The benchmark effluent limits in this permit for Total Suspended Solids (TSS) of 100 mg/l daily max. and 70 mg/l monthly avg. is lower than the 120 mg/l daily max. and 80 mg/l monthly avg. effluent limits for TSS in the TMDL.

UPSTREAM OR DOWNSTREAM IMPAIRMENTS:

The permit writer has reviewed upstream and downstream stream segments of this facility for impairments.

- ✓ The permit writer has noted downstream of the facility has a TMDL for sediment.

APPLICABLE DESIGNATIONS OF WATERS OF THE STATE:

Per Missouri's Effluent Regulations [10 CSR 20-7.015(1)(B)], waters of the state are divided into seven categories. This facility is subject to effluent limitations derived on a site specific basis which are presented in each outfall's effluent limitation table and further discussed in Part IV: Effluents Limits Determinations.

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

RECEIVING WATERBODY TABLE:

OUTFALLS	WATERBODY NAME	CLASS	WBID	DESIGNATED USES	DISTANCE TO SEGMENT	12-DIGIT HUC
All	Tributary to Old Channel Tarkio River	n/a	n/a	GEN	0.0 mi	10240005-0903 Tarkio-Wolf
All	100K Extant-Remaining Streams	C	3960	GEN, HHP, IRR, LWW, SCR, WBC-B, WWH (ALP)	1.2-1.4 mi	

n/a not applicable

Classes are hydrologic classes as defined in 10 CSR 20-7.031(1)(F). L1: Lakes with drinking water supply - wastewater discharges are not permitted to occur to L1 watersheds per 10 CSR 20-7.015(3)(C); L2: major reservoirs; L3: all other public and private lakes; P: permanent streams; C: streams which may cease flow in dry periods but maintain pools supporting aquatic life; E: streams which do not maintain surface flow; and W: wetland. Losing streams are defined in 10 CSR 20-7.031(1)(O) and are designated on the Losing Stream dataset or determined by the Department to lose 30% or more of flow to the subsurface.

WBID = Waterbody Identification: Missouri Use Designation Dataset per 10 CSR 20-7.031(1)(Q) and (S) as 100K Extant-Remaining Streams or newer; data can be found as an ArcGIS shapefile on MSDIS at ftp://msdis.missouri.edu/pub/Inland_Water_Resources/MO_2014_WQS_Stream_Classifications_and_Use_shp.zip; New C streams described on the dataset per 10 CSR 20-7.031(2)(A)3. as 100K Extant Remaining Streams.

Per 10 CSR 20-7.031, 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 are to be maintained in the receiving streams 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.: **ALP** = Aquatic Life Protection (formerly AQL; current uses are defined to ensure the protection and propagation of fish shellfish and wildlife, 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 ALP effluent limitations in 10 CSR 20-7.031 Table A1-A2 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 not supported in WBC-A;

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 and drinking of water;

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 Tables A1-B3 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

RECEIVING WATERBODY MONITORING REQUIREMENTS:

No receiving water monitoring requirements are recommended at this time.

PART III. RATIONALE AND DERIVATION OF 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)], and is an existing facility.

ANTIBACKSLIDING:

Federal Regulations [CWA §303(d)(4); CWA §402(c); 40 CFR Part 122.44(l)] 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 #001 were established in error, based on limits for domestic or process wastewater, however, this is a stormwater outfall. Five years of DMR data support limit conversion to benchmarks. Also, the previous permit included monthly averages for the stormwater outfall; however, stormwater is not continuous pursuant to 40 CFR 122.45(d) therefore monthly averages are not implemented; stormwater discharges vary widely in frequency, magnitude, and duration. This renewal establishes 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 permit writer has determined there is no reasonable potential to cause or contribute to water quality.
 - Previous permits included an effluent limit of 10 mg/L for nitrates plus nitrites for Outfalls #002 and #003. This Water Quality Standard is only for the Designated Uses of Drinking Water Supply and Groundwater. The discharge from these outfall are a surface discharge and the designated use of Drinking Water Supply is not listed in the stream classification for the receiving stream for the facility. Therefore, the effluent limit for nitrates plus nitrites has been changed to monitoring only.
 - Sludge monitoring for percent solids was removed. Monitoring for this parameter is not required for the determination of application rates
 - Soil monitoring for the parameter of Nitrates was removed. The facility utilizes the PAN calculation which takes into consideration nitrates that are carried over from previous applications.
 - The previous permit special conditions contained a specific set of prohibitions related to general criteria (GC) 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 criteria in the previous permit. This permit assesses each general criteria as listed in the previous permit's special conditions. Federal regulations 40 CFR 122.44(d)(1)(iii) requires 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, 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)(A) through (I) and effluent limitations were placed in the permit for those general criteria where it was determined the discharge had reasonable potential to cause or contribute to excursions of the general criteria. Specific effluent limitations were not included for those general criteria where it was determined the discharges will not cause or contribute to excursions of general criteria. Removal of the prohibitions does not reduce the protections of the permit or allow for impairment of the receiving stream. The permit maintains sufficient effluent limitations, monitoring requirements and best management practices to protect water quality while maintaining permit conditions applicable to permittee disclosures and in accordance with 10 CSR 20-7.031(4) where no water contaminant by itself or in combination with other substances shall prevent the water of the state from meeting the following conditions:

- (A) Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses.
- For all outfalls, there is no RP for putrescent bottom deposits preventing full maintenance of beneficial uses because nothing disclosed by the permittee indicates putrescent wastewater would be discharged from the facility.
 - For all outfalls, there is no RP for unsightly or harmful bottom deposits preventing full maintenance of beneficial uses because nothing disclosed by the permittee indicates unsightly or harmful bottom deposits would be discharged from the facility.
- (B) Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses.
- For all outfalls, there is no RP for oil in sufficient amounts to be unsightly preventing full maintenance of beneficial uses because nothing disclosed by the permittee indicates oil will be present in sufficient amounts to impair beneficial uses.
 - For all outfalls, there is no RP for scum and floating debris in sufficient amounts to be unsightly preventing full maintenance of beneficial uses because nothing disclosed by the permittee indicates scum and floating debris will be present in sufficient amounts to impair beneficial uses.
- (C) Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses.
- It has been established any unsightly color or turbidity changes are covered by the specific numeric effluent limitations established in the permit.
 - For all outfalls, there is no RP for offensive odor in sufficient amounts preventing full maintenance of beneficial uses because nothing disclosed by the permittee indicates offensive odor will be present in sufficient amounts to impair beneficial uses.
- (D) Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life.
- The permit writer considered specific toxic pollutants when writing this permit. Numeric effluent limitations are included for those pollutants could be discharged in toxic amounts. These effluent limitations are protective of human health, animals, and aquatic life.
- (E) Waters shall maintain a level of water quality at their confluences to downstream waters that provides for the attainment and maintenance of the water quality standards of those downstream waters, including waters of another state.
- This criteria was not assessed for antibacksliding as this is a new requirement, approved by the EPA on July 30, 2019.
- (F) There shall be no significant human health hazard from incidental contact with the water.
- Much like the condition above, the permit writer considered specific toxic pollutants when writing this permit, including those pollutants could cause human health hazards. The discharge is limited by numeric effluent limitations for those conditions could result in human health hazards.
- (G) There shall be no acute toxicity to livestock or wildlife watering.
- The permit writer considered specific toxic pollutants when writing this permit. Numeric effluent limitations are included for those pollutants could be discharged in toxic amounts. These effluent limitations are protective of livestock and wildlife watering.
- (H) Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community.
- It has been established any physical or chemical changes are covered by the specific numeric effluent limitations established in the permit.
 - For all outfalls, there is no RP for hydrologic changes impairing the natural biological community because nothing disclosed by the permittee indicates this is occurring.
- (I) Waters shall be free from used tires, car bodies, appliances, demolition debris, used vehicles or equipment and solid waste as defined in Missouri's Solid Waste Law, section 260.200, RSMo, except as the use of such materials is specifically permitted pursuant to section 260.200-260.247.

- There are no solid waste disposal activities or any operation which has reasonable potential to cause or contribute to the materials listed above being discharged through any outfall.

ANTIDEGRADATION REVIEW:

Process water discharges with new, altered, or expanding flows, 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.

This permit requires the development and implementation of a Stormwater Pollution Prevention Plan (SWPPP) which must include an alternative analysis (AA) of the BMPs. The SWPPP must be developed, implemented, updated, and maintained at the facility. Failure to implement and maintain the chosen alternative, is a permit violation. The AA is a structured evaluation of BMPs to determine which are reasonable and cost effective. Analysis should include practices designed to be 1) non-degrading, 2) less degrading, or 3) degrading water quality. The chosen BMP will be the most reasonable and cost effective while ensuring the highest statutory and regulatory requirements are achieved and the highest quality water attainable for the facility is discharged. The analysis must demonstrate why "no discharge" or "no exposure" are not feasible alternatives at the facility. Existing facilities with established SWPPPs and BMPs need not conduct an additional alternatives analysis unless new BMPs are established to address BMP failures or benchmark exceedances. This structured analysis of BMPs serves as the antidegradation review, fulfilling the requirements of 10 CSR 20-7.015(9)(A)5 and 7.031(3). For stormwater discharges with new, altered, or expanding discharges, the stormwater BMP chosen for the facility, through the AA 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.

BEST MANAGEMENT PRACTICES:

Minimum site-wide best management practices are established in this permit to assure all permittees are managing their sites equally to protect waters of the state from certain activities which could cause negative effects in receiving water bodies. While not all sites require a SWPPP because the SIC codes are specifically exempted in 40 CFR 122.26(b)(14), these best management practices are not specifically included for stormwater purposes. These practices are minimum requirements for all industrial sites to protect waters of the state. If the minimum best management practices are not followed, the facility may violate general criteria [10 CSR 20-7.031(4)]. Statutes are applicable to all permitted facilities in the state, therefore pollutants cannot be released unless in accordance with RSMo 644.011 and 644.016 (17).

CHANGES IN DISCHARGES OF TOXIC POLLUTANT:

This special condition reiterates the federal rules found in 40 CFR 122.44(f) and 122.42(a)(1). In these rules, the facility is required to report changes in amounts of toxic substances discharged. Toxic substances are defined in 40 CFR 122.2 as "...any pollutant listed as toxic under section 307(a)(1) or, in the case of "sludge use or disposal practices," any pollutant identified in regulations implementing section 405(d) of the CWA." Section 307 of the clean water act then refers to those parameters found in 40 CFR 401.15. The permittee should also consider any other toxic pollutant in the discharge as reportable under this condition.

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.

DOMESTIC WASTEWATER, SLUDGE, AND BIOSOLIDS:

Domestic wastewater is defined as wastewater (i.e., human sewage) originating primarily from the sanitary conveyances of bathrooms and kitchens. Domestic wastewater excludes stormwater, animal waste, process waste, and other similar waste.

- ✓ Not applicable; this facility discharges domestic wastewater to an off-site permitted wastewater treatment facility.

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. Biosolids are solid materials resulting from domestic wastewater treatment meeting federal and state criteria for productive use (i.e. fertilizer) and after having pathogens removed.

Additional information: <http://extension.missouri.edu/main/DisplayCategory.aspx?C=74> (WQ422 through WQ449).

- ✓ Not applicable; the facility does not manage domestic wastewater on-site.

EFFLUENT LIMITATIONS:

Effluent limitations derived and established for this permit are based on current operations of the facility and applied per 10 CSR 20-7.015(9)(A). Any flow through the outfall is considered a discharge and must be sampled and reported as provided in the permit. Future permit action due to facility modification may contain new operating permit terms and conditions which supersede the terms and conditions, including effluent limitations, of this operating permit. Daily maximums and monthly averages are required per 40 CFR 122.45(d)(1) for continuous discharges (not from a POTW).

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 does not have an associated ELG.

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. The 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 not 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.

To assist the facility in entering data into the eDMR system, the permit describes limit sets in each table in Part A of the permit. The data entry personnel should use these identifiers to assure data entry is being completed appropriately.

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

GENERAL CRITERIA CONSIDERATIONS:

In accordance with 40 CFR 122.44(d)(1), effluent limitations shall be placed into permits for pollutants determined to cause, have reasonable potential to cause, or to contribute to, an excursion above any water quality standard, including narrative water quality criteria. In order to comply with this regulation, the permit writer has completed a reasonable potential determination on whether discharges have reasonable potential to cause, or contribute to an excursion of the general criteria listed in 10 CSR 20-7.031(4). In instances where reasonable potential exists, the permit includes limitations within the permit to address the reasonable potential. In discharges where reasonable potential does not exist, the permit may include monitoring to later determine the discharge's potential to impact the narrative criteria. Additionally, §644.076.1, RSMo as well as Section D – Administrative Requirements of Standard Conditions Part I of this permit state it shall be unlawful for any person to cause or allow 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.

GROUNDWATER MONITORING:

Groundwater is a water of the state according to RSMo 644.016(27), is subject to regulations at 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.

LAND APPLICATION:

Land application, or surficial dispersion of wastewater and/or sludge, is performed by facilities to maintain a basin as no-discharge. Requirements for these types of operations are found in 10 CSR 20-6.015; authority to regulate these activities is from RSMo 644.026.

✓ Applicable, the facility is authorized to land apply sludge in accordance with land application requirements in this permit. These requirements are intended to minimize the risk of discharges to waters of the state, protect soil and plants, and ensure utilization of nutrients. When permit conditions are followed, stormwater discharges from land application areas will be considered agricultural stormwater which is exempt from stormwater regulations in accordance with 10 CSR 20-6.200(1)(B)5.

- Following is a list of helpful publications; while generally geared to biosolids and domestic sludge, these documents can show operators and permittees specific best management practices which may be important to their own operations.
 - Land Applications Considerations for Animal Manure (contains nutrient requirements for plant growth) <https://extension2.missouri.edu/eq202>
 - State and EPA Regulations for Domestic Wastewater Sludge and Biosolids <https://extension2.missouri.edu/eq421>
 - Land Application of Septage <https://extension2.missouri.edu/eq422>
 - Monitoring Requirements for Biosolids Land Application <https://extension2.missouri.edu/wq423>
 - Biosolids Standards for Pathogens and Vectors <https://extension2.missouri.edu/wq424>
 - Biosolids Standards for Metals and Other Trace Substances <https://extension2.missouri.edu/wq425>
 - Best Management Practices for Biosolids Land Application <https://extension2.missouri.edu/wq426>
 - Benefits and Risks of Biosolids <https://extension2.missouri.edu/wq427>
 - Activity and Movement of Plant Nutrients and Other Trace Substances <https://extension2.missouri.edu/wq428>
 - Interpretation of Laboratory Analysis of Biosolids Samples <https://extension2.missouri.edu/wq429>
 - Crop/Nutrient Considerations of Biosolids <https://extension2.missouri.edu/eq430>
 - Collection and Storage of Biosolids <https://extension2.missouri.edu/eq431>
 - Equipment for Off-Site Application of Biosolids <https://extension2.missouri.edu/wq432>
 - Equipment for On-Site Land Application of Biosolids <https://extension2.missouri.edu/wq433>
 - Operating Considerations for Biosolids Equipment <https://extension2.missouri.edu/wq434>
 - Biosolids Glossary of Terms <https://extension2.missouri.edu/eq449>
- ✓ The facility must follow the applicable application loading rates indicated in the permit's facility description and/or special conditions. Following are an explanation of the conditions in this permit.
 - Fertilizer recommendations can also be obtained by using one of the following tools:
 - The University of Missouri Extension online fertilizer recommendation calculator at <http://soilplantlab.missouri.edu/soil/scripts/manualentry.aspx>
 - University of Missouri Nutrient Management Home Page: <http://nmplanner.missouri.edu/>
 - United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Nutrient Management technical resources <https://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/technical/ecoscience/mnm/?cid=stelprdb1044741>
- ✓ Soil testing is performed to assure soil accumulation rates of the specified parameters are below established soil loading rates.
- ✓ Annual sludge sampling is required to determine application rates.
- ✓ Definitions used in the land application section of the permit can be found at RSMo 644.016, 10 CSR 20-2, and 40 CFR 503.11.
- ✓ This permit does not authorize land disposal or the application of hazardous waste.

MAJOR WATER USER:

Any surface or groundwater user with a water source and the equipment necessary to withdraw or divert 100,000 gallons (or 70 gallons per minute) or more per day combined from all sources from any stream, river, lake, well, spring, or other water source is considered a major water user in Missouri. All major water users are required by law to register water use annually (Missouri Revised Statutes Chapter 256.400 Geology, Water Resources and Geodetic Survey Section). <https://dnr.mo.gov/pubs/pub2236.htm>

- ✓ Applicable; this facility is a major water user and is registered with the state.

OIL/WATER SEPARATORS:

Oil water separator (OWS) tank systems are frequently found at industrial sites where process water and stormwater may contain oils and greases, oily wastewaters, or other immiscible liquids requiring separation. Food industry discharges typically require pretreatment prior to discharge to municipally owned treatment works. Per 10 CSR 26-2.010(2)(B), all oil water separator tanks must be operated according to manufacturer's specifications and authorized in NPDES permits per 10 CSR 26-2.010(2) or may be regulated as a petroleum tank.

- ✓ Not applicable; the permittee has not disclosed the use of any oil water separators they wish to include under the NPDES permit at this facility and therefore oil water separator tanks are not authorized by this permit.

REASONABLE POTENTIAL (RP):

Federal regulation [40 CFR Part 122.44(d)(1)(i)] requires effluent limitations for all pollutants which 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. Per 10 CSR 20-7.031(4), general criteria shall be applicable to all waters of the state at all times; however, acute toxicity criteria may be exceeded by permit in zones of initial dilution, and chronic toxicity criteria may be exceeded by permit in mixing zones. If the permit writer determines any given pollutant has the reasonable potential to cause or contribute to an in-stream excursion above the WQS, the permit must contain effluent limits for the pollutant per 40 CFR Part 122.44(d)(1)(iii) and the most stringent limits per 10 CSR 20-7.031(9)(A). Permit writers may use mathematical reasonable potential analysis (RPA) using the Technical Support Document for Water Quality Based Toxics Control (TSD) methods (EPA/505/2-90-001) as found in Section 3.3.2, or may also use reasonable potential determinations (RPD) as provided in Sections 3.1.2, 3.1.3, and 3.2 of the TSD.

- ✓ Not applicable; a mathematical 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.

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. Minimum sampling frequency for all parameters is annually per 40 CFR 122.44(i)(2).

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, volatile organic compounds, and others.

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 and 10 CSR 20-7.031(11) providing certain conditions are met.

A SOC is not allowed:

- For effluent limitations based on technology-based standards established in accordance with federal requirements, if the deadline for compliance established in federal regulations has passed. 40 CFR § 125.3.
- For a newly constructed facility in most cases. Newly constructed facilities must meet applicable effluent limitations when discharge begins, because the facility has installed the appropriate control technology as specified in a permit or antidegradation review. A SOC is allowed for a new water quality based effluent limit not included in a previously public noticed permit or antidegradation review, which may occur if a regulation changes during construction.
- To develop a TMDL, UAA, or other study associated with development of a site specific criterion. A facility is not prohibited from conducting these activities, but a SOC may not be granted for conducting these activities.

In order to provide guidance in developing SOC's, and to attain a greater level of consistency, the Department issued a policy on development of SOC's on October 25, 2012. The policy provides guidance to permit writers on standard time frames for schedules for common activities, and guidance on factors to modify the length of the schedule.

✓ Not applicable; this permit does not contain a SOC. Limits have not become more restrictive.

SPILLS, OVERFLOWS, AND OTHER UNAUTHORIZED DISCHARGE REPORTING:

Per 260.505 RSMo, 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>

Any other spills, overflows, or unauthorized discharges reaching waters of the state must be reported to the regional office during normal business hours, or after normal business hours, to the Department's 24 hour Environmental Emergency Response spill line at 573-634-2436.

SLUDGE – INDUSTRIAL:

Industrial sludge is solid, semi-solid, or liquid residue generated during the treatment of industrial process or non-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 any material derived from industrial sludge.

✓ Applicable; this permit authorizes land application of industrial sludge in accordance with Part A and Special Conditions of this permit; see additional information below in Part IV.

STANDARD CONDITIONS:

The standard conditions Part I attached to this permit incorporate all sections of 40 CFR 122.41(a) through (n) by reference as required by law. These conditions, in addition to the conditions enumerated within the standard conditions should be reviewed by the permittee to ascertain compliance with this permit, state regulations, state statutes, federal regulations, and the Clean Water Act. Standard

Conditions Part III, if attached to this permit, incorporate requirements dealing with domestic wastewater, sludge, and land application.

STORMWATER PERMITTING: LIMITATIONS AND BENCHMARKS:

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 as dictated by site specific conditions, the BMPs in place, past performance of the facility, and the receiving water's current quality.

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 Water Quality Standards (WQSs) are based on one hour of exposure, and must be protected at all times. Therefore, industrial stormwater facilities with toxic contaminants present in the stormwater may have the potential to cause a violation of acute WQSs if toxic contaminants occur in sufficient amounts. In this instance, the permit writer may apply daily maximum limitations.

Conversely, it is unlikely for rainfall to cause a discharge for four continuous days from a facility; if this does occur however, the receiving stream will also likely sustain a significant amount of flow providing dilution. Most chronic WQSs are based on a four-day exposure with some exceptions. Under this scenario, most industrial stormwater facilities have limited potential to cause a violation of chronic water quality standards in the receiving stream.

A standard mass-balance equation cannot be calculated for stormwater because stormwater flow and flow in the receiving stream cannot be determined for conditions on any given day or storm event. The amount of stormwater discharged from the facility will vary based on current and 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, area of surfaces with reduced permeability (houses, parking lots, and the like) in the watershed, hydrogeology, topography, etc. Decreased permeability may increase the stream flow dramatically over a short period of time (flash).

Numeric benchmark values are based on site specific requirements taking in to account a number of factors but cannot be applied to any process water discharges. First, the technology in place at the site to control pollutant discharges in stormwater is evaluated. The permit writer also evaluates other similar permits for similar activities. A review of the guidance forming the basis of Environmental Protection Agency's (EPA's) *Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity* (MSGP) may also occur. 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 may also be used. 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. If a facility has not disclosed BMPs applicable to the pollutants for the site, the permittee may not be eligible for benchmarks.

40 CFR 122.44(b)(1) requires the permit implement the most stringent limitations for each discharge, including industrially exposed stormwater; and 40 CFR 122.44(d)(1)(i) and (iii) requires the permit to include water-quality based effluent limitations where reasonable potential has been found. However, because of the non-continuous nature of stormwater discharges, staff are unable to perform statistical Reasonable Potential Analysis (RPA) under most stormwater discharge scenarios. Reasonable potential determinations (RPDs; see REASONABLE POTENTIAL above) using best professional judgment are performed.

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 conditions of the permit.

BMP inspections typically occur more frequently than sampling. Sampling frequencies are based on the facility's ability to comply with the benchmarks and the requirements of the permit. Inspections should occur after large rain events and any other time an issue is noted; sampling after a benchmark exceedance may need to occur to show the corrective action taken was meaningful.

When a permitted feature or outfall consists of only stormwater, a benchmark may be implemented at the discretion of the permit writer, if there is no RP for water quality excursions.

- ✓ Applicable, this facility has stormwater-only outfalls where benchmarks or limitations were deemed appropriate contaminant measures.

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*, (EPA 833-B-09-002) published by the EPA in 2015 https://www.epa.gov/sites/production/files/2015-11/documents/swppp_guide_industrial_2015.pdf, 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. Additional information can be found in *Stormwater Management for Industrial Activities: Developing Pollution Prevention Plans and Best Management Practices* (EPA 832-R-92-006; September 1992).

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 which are reasonable and cost effective. The AA evaluation should include practices 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 benchmark 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, which includes an appropriate fee; the application is found at: <https://dnr.mo.gov/forms/#WaterPollution>

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

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 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 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. Tables A1-B3 at 10 CSR 20-7.031 shows water quality standards.

UNDERGROUND INJECTION CONTROL (UIC):

The UIC program for all classes of wells in the State of Missouri is administered by the Missouri Department of Natural Resources and approved by EPA pursuant to section 1422 and 1425 of the Safe Drinking Water Act (SDWA) and 40 CFR 147 Subpart AA. Injection wells are classified based on the liquids which are being injected. Class I wells are hazardous waste wells which are banned by RSMo 577.155; Class II wells are established for oil and natural gas production; Class III wells are used to inject fluids to extract minerals; Class IV wells are also banned by Missouri in RSMo 577.155; Class V wells are shallow injection wells; some examples are heat pump wells and groundwater remediation wells. Domestic wastewater being disposed of sub-surface is also considered a Class V well. In accordance with 40 CFR 144.82, construction, operation, maintenance, conversion, plugging, or closure of injection wells shall not cause movement of fluids containing any contaminant into Underground Sources of Drinking Water (USDW) if the presence of any contaminant may cause a violation of drinking water standards or groundwater standards under 10 CSR 20-7.031, or other health based standards, or may otherwise adversely affect human health. If the director finds the injection activity may endanger USDWs, the Department may require closure of the injection wells, or other actions listed in 40 CFR 144.12(c), (d), or (e). In accordance with 40 CFR 144.26, the permittee shall submit a Class V Well Inventory Form for each active or new underground injection well drilled, or when the status of a well changes, to the Missouri Department of Natural Resources, Geological Survey Program, P.O. Box 250, Rolla, Missouri 65402. The Class V Well Inventory Form can be requested from the Geological Survey Program or can be found at the following web address: <http://dnr.mo.gov/forms/780-1774-f.pdf> Single family residential septic systems and non-residential septic systems used solely for sanitary waste and having the capacity to serve fewer than 20 persons a day are excluded from the UIC requirements (40 CFR 144.81(9)).

✓ Not applicable; the permittee has not submitted materials indicating the facility will be performing UIC at this site.

VARIANCE:

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

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

WASTELOAD ALLOCATIONS (WLA) FOR LIMITS:

As per [10 CSR 20-2.010; definitions], 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 not provide adequate protection for the receiving water, then the other must be used per 10 CSR 20-7.015(9)(A). Total Maximum Daily Loads, if required for this facility, were also reviewed.

✓ Not applicable; wasteload allocations were either not calculated or were not based on TSD methods.

WASTELOAD ALLOCATION (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 STANDARD REVISION:

In accordance with section 644.058, RSMo, the Department is required to utilize an evaluation of the environmental and economic impacts of modifications to water quality standards of twenty-five percent or more when making individual site-specific permit decisions.

✓ This operating permit does not contain requirements for a water quality standard that has changed twenty-five percent or more since the previous operating permit.

PART IV. EFFLUENT LIMITS DETERMINATIONS

PERMITTED FEATURE #001 – STORMWATER BASIN

EFFLUENT LIMITATIONS TABLE:

PARAMETERS	UNIT	DAILY MAXIMUM LIMIT	BENCH- MARK	PREVIOUS PERMIT LIMITS	MINIMUM SAMPLING FREQUENCY	REPORTING FREQUENCY	SAMPLE TYPE
PHYSICAL							
FLOW	MGD	*	*	*	QUARTERLY	QUARTERLY	24 HR. ESTIMATE
PRECIPITATION	inches	*	*	*	QUARTERLY	QUARTERLY	24 HR. TOT
CONVENTIONAL							
COD	mg/L	**	90	90/120	QUARTERLY	QUARTERLY	GRAB
OIL & GREASE	mg/L	**	10	10/15	QUARTERLY	QUARTERLY	GRAB
pH [†]	SU	6.5-9.0	6.5-9.0	SAME	QUARTERLY	QUARTERLY	GRAB
TSS	mg/L	100	70	70/100	QUARTERLY	QUARTERLY	GRAB

* monitoring and reporting requirement only

** monitoring with associated benchmark

† report the minimum and maximum pH values; pH is not to be averaged

PERMITTED FEATURE #001 – DERIVATION AND DISCUSSION OF LIMITS:

Flow

In accordance with [40 CFR Part 122.44(i)(1)(ii)] the estimated volume of effluent discharged from each outfall is needed to ensure compliance with permitted effluent limitations. If the permittee is unable to obtain estimated 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 estimated total flow in millions of gallons per day (MGD), monthly monitoring continued from previous permit.

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 any specific control measures 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.

Chemical Oxygen Demand (COD)

Monitoring with 90 mg/L daily maximum benchmark is included using the permit writer's best professional judgment. DMR data did not show any exceedances of this parameter for the last permit cycle. There is no numeric water quality standard for COD; however, increased oxygen demand may impact instream water quality. COD is also a valuable indicator parameter. COD monitoring allows the permittee to identify increases in COD may indicate materials/chemicals coming into contact with stormwater causing an increase in oxygen demand. Increases in COD may indicate a need for maintenance or improvement of BMPs. The benchmark value falls within the range of values implemented in other permits having similar industrial activities and is achievable through proper BMP controls.

Total Suspended Solids (TSS)

Monitoring with a daily maximum benchmark of 70 mg/L. DMR data did not show any exceedances of this parameter for the last permit cycle. There is no numeric water quality standard for TSS; however, sediment discharges can negatively impact aquatic life habitat. TSS is also a valuable indicator parameter. TSS monitoring allows the permittee to identify increases in TSS indicating uncontrolled materials leaving the site. Increased suspended solids in runoff can lead to decreased available oxygen for aquatic life and an increase of surface water temperatures in a receiving stream. Suspended solids can also be carriers of toxins, which can adsorb to the suspended particles; therefore, total suspended solids are a valuable indicator parameter for other pollution. The benchmark is achievable through proper operational and maintenance of BMPs and falls within the range of values implemented in other permits having similar industrial activities.

pH

In accordance with 10 CSR 20-7.031(5)(E), water contaminants shall not cause pH to be outside of the range of 6.5 -9.0 standard pH units. pH is a fundamental water quality indicator. Additionally, metals leachability and ammonia availability in wastewater is dependent on pH. Limitations in this permit will protect against aquatic organism toxicity, downstream water quality issues,

human health hazard contact, and negative physical changes in accordance with the general criteria at 10 CSR 20-7.031(4) and the Clean Water Act's (CWA) goal of 100% fishable and swimmable rivers and streams.

Oil & Grease

Monitoring with a daily maximum benchmark of 10 mg/L. Oil and grease is considered a conventional pollutant. DMR data did not show any exceedances of this parameter for the last permit cycle. Oil and grease is a comprehensive test which measures for gasoline, diesel, crude oil, creosote, kerosene, heating oils, heavy fuel oils, lubricating oils, waxes, and some asphalt and pitch. The test can also detect some volatile organics such as benzene, toluene, ethylbenzene, or toluene, but these constituents are often lost during testing due to their boiling points. It is recommended to perform separate testing for these constituents if they are a known pollutant of concern at the site, i.e. aquatic life toxicity or human health is a concern. Results do not allow for separation of specific pollutants within the test, they are reported, totaled, as "oil and grease". Per 10 CSR 20-7.031 Table A1: *Criteria for Designated Uses*; 10 mg/L is the standard for protection of aquatic life. This standard will also be used to protect the general criteria found at 10 CSR 20-7.031(4). Ten mg/L is the level at which sheen is expected to form on receiving waters. Oils and greases of different densities will possibly form sheen or unsightly bottom deposits at levels which vary from 10 mg/L. To protect the general criteria, it is the responsibility of the permittee to visually observe the discharge and receiving waters for sheen or bottom deposits. The benchmark is achievable through proper operational and maintenance of BMPs and falls within the range of values implemented in other permits having similar industrial activities.

PERMITTED FEATURE #002 – WASTEWATER

EFFLUENT LIMITATIONS TABLE:

PARAMETERS	UNIT	DAILY MAX	MONTHLY AVG.	PREVIOUS PERMIT LIMITS	MINIMUM SAMPLING FREQUENCY	REPORTING FREQUENCY	SAMPLE TYPE
PHYSICAL							
FLOW	MGD	*	*	SAME	ONCE/MONTH	MONTHLY	24 HR. TOTAL
TEMPERATURE	°F	90		SAME	ONCE/MONTH	MONTHLY	MEASURED
CONVENTIONAL							
CHLORINE, TOTAL RESIDUAL	µg/L	17 (130ML)	8 (130ML)	SAME	ONCE/MONTH	MONTHLY	GRAB
CONDUCTIVITY	µmhos/cm	*	*	SAME	ONCE/MONTH	MONTHLY	GRAB
pH †	SU	6.5-9.0	6.5-9.0	SAME	ONCE/MONTH	MONTHLY	GRAB
METALS							
ARSENIC, TR	µg/L	20	20	SAME	ONCE/MONTH	MONTHLY	GRAB
IRON, TR	µg/L	1000	400	SAME	ONCE/MONTH	MONTHLY	GRAB
MANGANESE, TR	µg/L	*	*	SAME	ONCE/MONTH	MONTHLY	GRAB
NUTRIENTS							
NITROGEN, TOTAL KJELDAHL	mg/L	*	*	NEW	ONCE/MONTH	MONTHLY	GRAB
NITROGEN, AMMONIA TOTAL (AS N)	mg/L	*	*	SAME	ONCE/MONTH	MONTHLY	GRAB
NITRATE PLUS NITRITE AS N	mg/L	*	*	10	ONCE/MONTH	MONTHLY	GRAB
PHOSPHORUS, TOTAL P (TP)	mg/L	*	*	SAME	ONCE/MONTH	MONTHLY	GRAB
OTHER							
CHLORIDES PLUS SULFATES	mg/L	1000	1000	SAME	ONCE/MONTH	MONTHLY	GRAB
WET TEST, ACUTE	TUa	*		SAME	ONCE/YEAR	ONCE/YEAR	24 HR. COMPOSITE

* monitoring and reporting requirement only

† report the minimum and maximum pH values; pH is not to be averaged

new parameter not established in previous state operating permit

TR total recoverable

PERMITTED FEATURE #002– DERIVATION AND DISCUSSION OF LIMITS:

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), monthly monitoring continued from previous permit.

Temperature

In accordance with 10 CSR 20-7.031(5)(D), water contaminant sources shall not cause or contribute to stream temperature in excess of ninety degrees Fahrenheit (90 °F) or change the stream temperature by more than 5 degrees Fahrenheit. The permit writer used best professional judgement based on the cooling tower discharging at the site to implement temperature monitoring.

Chlorine, Total Residual

Effluent limitations from the previous state operating permit have been reassessed and verified that they are still protective of the receiving stream's Water Quality. Chlorine is used to treat the cooling towers; limits prevent the facility from over treating cooling towers with biocides. Therefore, effluent limitations have been retained from previous state operating permit. DMR data did not show any exceedances of this parameter for the last permit cycle.

Conductivity

Monitoring requirement only. There is no numeric water quality standard for conductivity; however, is an indicator of instream water quality. Conductivity is used as a conventional indicator of contaminants in water. DMR data for the last permit cycle was reviewed and are still protective of the receiving stream's Water Quality. Therefore, effluent limitations have been retained from previous state operating permit.

pH

In accordance with 10 CSR 20-7.031(5)(E), water contaminants shall not cause pH to be outside of the range of 6.5 -9.0 standard pH units. pH is a fundamental water quality indicator. Additionally, metals leachability and ammonia availability in wastewater is dependent on pH. Limitations in this permit will protect against aquatic organism toxicity, downstream water quality issues, human health hazard contact, and negative physical changes in accordance with the general criteria at 10 CSR 20-7.031(4) and the Clean Water Act's (CWA) goal of 100% fishable and swimmable rivers and streams.

Arsenic, TR

Effluent limitations from the previous state operating permit have been reassessed and verified that they are still protective of the receiving stream's Water Quality. The presence of this contaminant in the effluent is likely from the groundwater used in the cooling process. DMR data shows eight exceedances of this parameter for the last permit cycle. Therefore, effluent limitations have been retained from previous state operating permit.

Iron, TR

Effluent limitations from the previous state operating permit have been reassessed and verified that they are still protective of the receiving stream's Water Quality. The presence of this contaminant in the effluent is likely from the groundwater used in the cooling process. DMR data shows three exceedances of this parameter for the last permit cycle. Therefore, effluent limitations have been retained from previous state operating permit.

Manganese, TR

Monitoring requirement only. There is no numeric water quality standard for manganese for the designated uses for the receiving stream; however, is an indicator of instream water quality. The presence of this contaminant in the effluent is likely from the groundwater used in the cooling process. DMR data for the last permit cycle was reviewed and are still protective of the receiving stream's Water Quality. Therefore, effluent limitations have been retained from previous state operating permit.

Kjeldahl Nitrogen, Total (TKN)

Nitrogen is expected to be present in this outfall's discharge therefore monitoring is required per 10 CSR 20-7.015(9)(D)8.A.

Nitrogen, ammonia total (as N)

Nitrogen is expected to be present in this outfall's discharge therefore monitoring is required per 10 CSR 20-7.015(9)(D)8.A.

Nitrate plus Nitrite as N

Nitrogen is expected to be present in this outfall's discharge therefore monitoring is required per 10 CSR 20-7.015(9)(D)8.A. See also, **Part III. RATIONALE AND DERIVATION OF PERMIT CONDITIONS, ANTIBACKSLIDING.**

Phosphorous, Total

Phosphorus is expected to be present in this outfall's discharge therefore monitoring is required per 10 CSR 20-7.015(9)(D)8.A.

Chloride plus Sulfate

1000 mg/L monthly average for protection of aquatic life use per 10 CSR 20-7.031(5)(L). Effluent limitations from the previous state operating permit have been reassessed and verified that they are still protective of the receiving stream's Water Quality.

DMR data one exceedances of this parameter for the last permit cycle. . Therefore, effluent limitations have been retained from previous state operating permit.

Whole Effluent Toxicity (WET) Test

Monitoring is required to determine if reasonable potential exists for the discharge to cause toxicity within the receiving stream. A WET test is a quantifiable method to determine discharges from the facility cause toxicity to aquatic life by itself, in combination with, or through synergistic responses, when mixed with receiving stream water.

Under the federal Clean Water Act (CWA) §101(a)(3), requiring WET testing is reasonably appropriate for site-specific Missouri State Operating Permits for discharges to waters of the state issued under the National Pollutant Discharge Elimination System (NPDES). WET testing is also required by 40 CFR 122.44(d)(1). WET testing ensures the provisions in 10 CSR 20-6 and the Water Quality Standards in 10 CSR 20-7 are being met. Under 10 CSR 20-6.010(8)(A)4, the Department may require other terms and conditions it deems necessary to assure compliance with the CWA and related regulations of the Missouri Clean Water Commission. The following Missouri Clean Water Laws (MCWL) apply: §644.051.3. requires the Department to set permit conditions complying with the MCWL and CWA; §644.051.4 specifically references toxicity as an item we must consider in writing permits (along with water quality-based effluent limits); and §644.051.5. is the basic authority to require testing conditions. WET tests are required by all facilities meeting the following criteria:

- ✓ Facility has water quality-based effluent limitations for toxic substances (other than NH₃)

Annual testing is the minimum testing frequency; monitoring requirements promulgated in 40 CFR 122.44(i)(2) state “requirements to report monitoring results shall be established on a case-by-case basis with a frequency dependent on the nature and effect of the discharge, but in no case less than once per year.”

WET, Acute

The permit writer has determined this facility has reasonable potential to cause toxicity in the receiving stream.

WQS: no toxics in toxic amounts [10 CSR 20-7.031(4)(J)2.B.] = 0.3 TUa

Acute WLA: $C_e = ((\# \text{ cfs}_{DF} + \# \text{ cfs}_{ZID7Q10}) 0.3 \text{ TUa} - (\# \text{ cfs}_{ZID7Q10} * 0 \text{ TUa}_{\text{Background}})) \div \# \text{ cfs}_{DF}$
 $C_e = 0.3 \text{ TUa}$ (if no mixing)

LTA_a: 0.3 TUa (0.321) = 0.0963 TUa [CV = 0.6, 99th Percentile]

MDL: 0.0963 TUa (3.11) = 0.3 TUa [CV = 0.6, 99th Percentile]

Where no mixing is allowed the acute criterion must be met at the end of the pipe. However, when using an LC₅₀ as the test endpoint, the acute toxicity test has an upper sensitivity level of 100% effluent, or 1.0 TUa. If less than 50% of the test organisms die at 100% effluent, the true LC₅₀ value for the effluent cannot be measured, effectively acting as a detection limit. Therefore, when the allowable effluent concentration is 100% a limit of **1.0 TUa** will apply.

The standard Allowable Effluent Concentration (AEC) for facilities discharging to unclassified, Class C, Class P (with default mixing considerations), or lakes [10 CSR 20-7.031(4)(A)4.B.(IV)(b)] is 100%. The standard dilution series for facilities discharging to waterbodies with no mixing considerations is 100%, 50%, 25%, 12.5%, & 6.25%.

PERMITTED FEATURE #003 – WASTEWATER

EFFLUENT LIMITATIONS TABLE:

PARAMETERS	UNIT	DAILY MAX	MONTHLY AVG.	PREVIOUS PERMIT LIMITS	MINIMUM SAMPLING FREQUENCY	REPORTING FREQUENCY	SAMPLE TYPE
PHYSICAL							
FLOW	MGD	*	*	SAME	ONCE/MONTH	MONTHLY	24 HR. TOTAL
TEMPERATURE	°F	90		SAME	ONCE/MONTH	MONTHLY	MEASURED
CONVENTIONAL							
CHLORINE, TOTAL RESIDUAL	µg/L	17 (130ML)	8 (130ML)	SAME	ONCE/MONTH	MONTHLY	GRAB
CONDUCTIVITY	µmhos/ cm	*	*	SAME	ONCE/MONTH	MONTHLY	GRAB
pH [†]	SU	6.5-9.0	6.5-9.0	SAME	ONCE/MONTH	MONTHLY	GRAB
METALS							
Aluminum, TR	µg/L	750	750	SAME	ONCE/MONTH	MONTHLY	GRAB
ARSENIC, TR	µg/L	20	20	SAME	ONCE/MONTH	MONTHLY	GRAB
IRON, TR	µg/L	1000	400	SAME	ONCE/MONTH	MONTHLY	GRAB
MANGANESE, TR	µg/L	*	*	SAME	ONCE/MONTH	MONTHLY	GRAB
NUTRIENTS							
NITROGEN, TOTAL KJELDAHL	mg/L	*	*	NEW	ONCE/MONTH	MONTHLY	GRAB
NITROGEN, AMMONIA TOTAL (AS N)	mg/L	*	*	NEW	ONCE/MONTH	MONTHLY	GRAB
NITRATE PLUS NITRITE AS N	mg/L	*	*	10	ONCE/MONTH	MONTHLY	GRAB
PHOSPHORUS, TOTAL P (TP)	mg/L	*	*	SAME	ONCE/MONTH	MONTHLY	GRAB
OTHER							
CHLORIDES PLUS SULFATES	mg/L	1000	1000	SAME	ONCE/MONTH	MONTHLY	GRAB
WET TEST, ACUTE	TUa	*		SAME	ONCE/YEAR	ONCE/YEAR	24 HR. COMPOSITE

* monitoring and reporting requirement only
[†] report the minimum and maximum pH values; pH is not to be averaged
 new parameter not established in previous state operating permit
 TR total recoverable

PERMITTED FEATURE #003– DERIVATION AND DISCUSSION OF LIMITS:

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), monthly monitoring continued from previous permit.

Temperature

In accordance with 10 CSR 20-7.031(5)(D), water contaminant sources shall not cause or contribute to stream temperature in excess of ninety degrees Fahrenheit (90 °F) or change the stream temperature by more than 5 degrees Fahrenheit. The permit writer used best professional judgement based on the boiler blowdown discharging at the site to implement temperature monitoring.

Chlorine, Total Residual

Effluent limitations from the previous state operating permit have been reassessed and verified that they are still protective of the receiving stream's Water Quality. Chlorine limits prevent the facility from over treating cooling towers with biocides. Therefore, effluent limitations have been retained from previous state operating permit. DMR data did not show any exceedances of this parameter for the last permit cycle.

Conductivity

Monitoring requirement only. There is no numeric water quality standard for conductivity; however, is an indicator of instream water quality. Conductivity is used as a conventional indicator of contaminants in water. DMR data for the last permit cycle was reviewed and are still protective of the receiving stream's Water Quality. Therefore, effluent limitations have been retained from previous state operating permit.

pH

In accordance with 10 CSR 20-7.031(5)(E), water contaminants shall not cause pH to be outside of the range of 6.5 -9.0 standard pH units. pH is a fundamental water quality indicator. Additionally, metals leachability and ammonia availability in wastewater is dependent on pH. Limitations in this permit will protect against aquatic organism toxicity, downstream water quality issues, human health hazard contact, and negative physical changes in accordance with the general criteria at 10 CSR 20-7.031(4) and the Clean Water Act's (CWA) goal of 100% fishable and swimmable rivers and streams.

Aluminum, TR

Effluent limitations from the previous state operating permit have been reassessed and verified that they are still protective of the receiving stream's Water Quality. The presences of this contaminant in the effluent is likely from the groundwater used in the cooling process. DMR data shows eight exceedances of this parameter for the last permit cycle. Therefore, effluent limitations have been retained from previous state operating permit.

Arsenic, TR

Effluent limitations from the previous state operating permit have been reassessed and verified that they are still protective of the receiving stream's Water Quality. The presences of this contaminant in the effluent is likely from the groundwater used in the cooling process. DMR data shows eight exceedances of this parameter for the last permit cycle. Therefore, effluent limitations have been retained from previous state operating permit.

Iron, TR

Effluent limitations from the previous state operating permit have been reassessed and verified that they are still protective of the receiving stream's Water Quality. The presences of this contaminant in the effluent is likely from the groundwater used in the cooling process. DMR data shows three exceedances of this parameter for the last permit cycle. Therefore, effluent limitations have been retained from previous state operating permit.

Manganese, TR

Monitoring requirement only. There is no numeric water quality standard for manganese for the designated uses for the receiving stream; however, is an indicator of instream water quality. The presences of this contaminant in the effluent is likely from the groundwater used in the cooling process. DMR data for the last permit cycle was reviewed and are still protective of the receiving stream's Water Quality. Therefore, effluent limitations have been retained from previous state operating permit.

Kjeldahl Nitrogen, Total (TKN)

As this site handles corn, ethanol and other grains, and as these organic materials are being processed, Nitrogen is expected to be present in this outfall's discharge; therefore monitoring is required per 10 CSR 20-7.015(9)(D)8.A.

Nitrogen, ammonia total (as N)

As this site handles corn, ethanol and other grains, and as these organic materials are being processed, Nitrogen is expected to be present in this outfall's discharge; therefore monitoring is required per 10 CSR 20-7.015(9)(D)8.A.

Nitrate plus Nitrite as N

As this site handles corn, ethanol and other grains, and as these organic materials are being processed, Nitrogen is expected to be present in this outfall's discharge; therefore monitoring is required per 10 CSR 20-7.015(9)(D)8.A. See also, **Part III**.

RATIONALE AND DERIVATION OF PERMIT CONDITIONS, ANTIBACKSLIDING.

Phosphorous, Total

As this site handles corn, ethanol and other grains, and as these organic materials are being processed, Phosphorus is expected to be present in this outfall's discharge; therefore monitoring is required per 10 CSR 20-7.015(9)(D)8.A.

Chloride plus Sulfate

1000 mg/L monthly average for protection of aquatic life use per 10 CSR 20-7.031(5)(L). Effluent limitations from the previous state operating permit have been reassessed and verified that they are still protective of the receiving stream's Water Quality. DMR data one exceedances of this parameter for the last permit cycle, but confirms the presence of this pollutant in the effluent. Chlorides are often present in food and grain processing facilities. Therefore, effluent limitations have been retained from previous state operating permit.

Whole Effluent Toxicity (WET) Test

Monitoring is required to determine if reasonable potential exists for the discharge to cause toxicity within the receiving stream. A WET test is a quantifiable method to determine discharges from the facility cause toxicity to aquatic life by itself, in combination with, or through synergistic responses, when mixed with receiving stream water.

Under the federal Clean Water Act (CWA) §101(a)(3), requiring WET testing is reasonably appropriate for site-specific Missouri State Operating Permits for discharges to waters of the state issued under the National Pollutant Discharge Elimination System (NPDES). WET testing is also required by 40 CFR 122.44(d)(1). WET testing ensures the provisions in 10 CSR 20-6 and the Water Quality Standards in 10 CSR 20-7 are being met. Under 10 CSR 20-6.010(8)(A)4, the Department may require other terms and conditions it deems necessary to assure compliance with the CWA and related regulations of the Missouri Clean Water Commission. The following Missouri Clean Water Laws (MCWL) apply: §644.051.3. requires the Department to set permit conditions complying with the MCWL and CWA; §644.051.4 specifically references toxicity as an item we must consider in writing permits (along with water quality-based effluent limits); and §644.051.5. is the basic authority to require testing conditions. WET tests are required by all facilities meeting the following criteria:

- ✓ Facility has water quality-based effluent limitations for toxic substances (other than NH₃)

Annual testing is the minimum testing frequency; monitoring requirements promulgated in 40 CFR 122.44(i)(2) state “requirements to report monitoring results shall be established on a case-by-case basis with a frequency dependent on the nature and effect of the discharge, but in no case less than once per year.”

WET, Acute

The permit writer has determined this facility has reasonable potential to cause toxicity in the receiving stream.

WQS: no toxics in toxic amounts [10 CSR 20-7.031(4)(J)2.B.] = 0.3 TUa

Acute WLA: $C_e = ((\text{## cfs}_{\text{DF}} + \text{## cfs}_{\text{ZID7Q10}}) 0.3 \text{ TUa} - (\text{## cfs}_{\text{ZID7Q10}} * 0 \text{ TUa}_{\text{Background}})) \div \text{## cfs}_{\text{DF}}$

$C_e = 0.3 \text{ TUa}$ (if no mixing)

LTA_a: 0.3 TUa (0.321) = 0.0963 TUa [CV = 0.6, 99th Percentile]

MDL: 0.0963 TUa (3.11) = 0.3 TUa [CV = 0.6, 99th Percentile]

Where no mixing is allowed the acute criterion must be met at the end of the pipe. However, when using an LC₅₀ as the test endpoint, the acute toxicity test has an upper sensitivity level of 100% effluent, or 1.0 TUa. If less than 50% of the test organisms die at 100% effluent, the true LC₅₀ value for the effluent cannot be measured, effectively acting as a detection limit. Therefore, when the allowable effluent concentration is 100% a limit of **1.0 TUa** will apply.

The standard Allowable Effluent Concentration (AEC) for facilities discharging to unclassified, Class C, Class P (with default mixing considerations), or lakes [10 CSR 20-7.031(4)(A)4.B.(IV)(b)] is 100%. The standard dilution series for facilities discharging to waterbodies with no mixing considerations is 100%, 50%, 25%, 12.5%, & 6.25%.

PERMITTED FEATURE #002-#003 – INDUSTRIAL SLUDGE MONITORING

EFFLUENT LIMITATIONS TABLE:

PARAMETERS	UNIT	DAILY MAX	PREVIOUS PERMIT LIMITS	MINIMUM SAMPLING FREQUENCY	MINIMUM REPORTING FREQUENCY	SAMPLE TYPE
INDUSTRIAL SLUDGE						
pH	SU	*	SAME	ONCE/YEAR	ONCE/YEAR	GRAB
NITROGEN, TOTAL KJELDAHL	mg/L	*	SAME	ONCE/YEAR	ONCE/YEAR	GRAB
NITROGEN, AMMONIA TOTAL (AS N)	mg/L	*	SAME	ONCE/YEAR	ONCE/YEAR	GRAB
NITRATE NITROGEN AS N	mg/L	*	SAME	ONCE/YEAR	ONCE/YEAR	GRAB
PHOSPHOROUS, TOTAL	mg/L	*	SAME	ONCE/YEAR	ONCE/YEAR	GRAB

PERMITTED FEATURE #002-#003– DERIVATION AND DISCUSSION OF LIMITS:

pH

Monitoring requirement only. Monitoring wastewater/sludge for pH will help to ensure compliance with 10 CSR 20-6.015(4)(A)1. and that the applied wastewater is not harmful to vegetation.

Nitrogen, Total Kjeldahl

Monitoring requirement only. Monitoring wastewater/sludge for nutrient content will help to ensure compliance with 10 CSR 20-6.015(4)(A)1. and determining application rates to ensure appropriate nutrient utilization.

Nitrogen, Ammonia Total (as N)

Monitoring requirement only. Monitoring wastewater/sludge for nutrient content will help to ensure compliance with 10 CSR 20-6.015(4)(A)1. and determining application rates to ensure appropriate nutrient utilization.

Nitrate Nitrogen as N

Monitoring requirement only. Monitoring wastewater/sludge for nutrient content will help to ensure compliance with 10 CSR 20-6.015(4)(A)1. and determining application rates to ensure appropriate nutrient utilization.

Phosphorous, Total

Monitoring requirement only. Monitoring wastewater/sludge for nutrient content will help to ensure compliance with 10 CSR 20-6.015(4)(A)1. and determining application rates to ensure appropriate nutrient utilization.

PERMITTED FEATURE #004-#005 – LAND APPLICATION AND SOIL MONITORING

EFFLUENT LIMITATIONS TABLE

PARAMETERS	UNIT	DAILY MAX	PREVIOUS PERMIT LIMITS	MINIMUM SAMPLING FREQUENCY	MINIMUM REPORTING FREQUENCY	SAMPLE TYPE
WASTEWATER APPLICATION						
APPLICATION AREA	Acres	*	SAME	ONCE/DAY	ONCE/MONTH	MEASURED
APPLICATION RATE	Inches/Acre	*	SAME	ONCE/DAY	ONCE/MONTH	MEASURED
IRRIGATION PERIOD	Hours	*	SAME	ONCE/DAY	ONCE/MONTH	MEASURED
VOLUME IRRIGATED	Gallons	*	SAME	ONCE/DAY	ONCE/MONTH	MEASURED
SOIL MONITORING						
pH	SU	*	SAME	ONCE/PERMIT	ONCE/PERMIT	MODIFIED COMPOSITE
PHOSPHOROUS, BRAYS	mg/kg	*	SAME	ONCE/PERMIT	ONCE/PERMIT	MODIFIED COMPOSITE

PERMITTED FEATURE #004-#005 – DERIVATION AND DISCUSSION OF LIMITS:

INDUSTRIAL SLUDGE APPLICATION:

Application Area

Monitoring requirement only. Monitoring will allow the permittee to ensure compliance with 10 CSR 20-6.015(4)(A)1. and help to prevent unauthorized discharges.

Application Rate

Monitoring requirement only. Monitoring will allow the permittee to ensure compliance with 10 CSR 20-6.015(4)(A)1. and help to prevent unauthorized discharges.

Irrigation Period

Monitoring requirement only. Monitoring will allow the permittee to ensure compliance with 10 CSR 20-6.015(4)(A)1. and help to prevent unauthorized discharges.

Volume Irrigated

Monitoring requirement only. Monitoring the area will allow the permittee to ensure compliance with 10 CSR 20-6.015(4)(A)1. and help to prevent unauthorized discharges.

SOIL MONITORING:

pH

Monitoring requirement only. Monitoring the soil for pH is included to ensure compliance with 10 CSR 20-20-6.015(4)(A)1, and that soil pH is in the optimal range for plant growth and nutrient utilization.

Phosphorous, Bray P1

Monitoring requirement only. Monitoring the soil for nutrients is included to ensure compliance with 10 CSR 20-20-6.015(4)(A)1, or in high concentrations that can cause plant toxicity.

PART V. 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 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 two years old, such 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 maintain synchronization by expiring the end of the 1st quarter, 2025.

PUBLIC NOTICE:

The Department shall give public notice 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 or with 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 July 10, 2020 to August 10, 2020. One comment was received and minor edits were made in response to this comment.

DATE OF FACT SHEET: AUGUST 11, 2020

COMPLETED BY:

GREG CALDWELL, ENVIRONMENTAL SCIENTIST
MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM
OPERATING PERMITS SECTION - INDUSTRIAL UNIT
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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.



Golden Triangle Energy
15053 Highway 111
Craig, MO 64437

Application for NPDES Renewal

Permit # MO-0126161

Golden Triangle Energy, LLC
15053 Highway 111
Craig, MO 64437

February 2019

Prepared by
Nayes Associates, LLC
Missouri PE # 2003014820



Golden Triangle Energy
15053 Highway 111
Craig, MO 64437

Contents

1. Application summary
2. Form A - Operating Permit Application
3. Form C – Manufacturing Operations
4. Form D – Primary Industries
5. Form R – Land application of Industrial Residuals
6. Appendix
7. Spreadsheets, calculations, and supporting files
 - a. 2019 NPDES renewal Calcs GTE_190219.xlsx"
 - b. BODvsFlow_Craig lagoon 030612.xls"
 - c. eDMR Adria MDNR may17-oct18 yr report MO0126161_190214.xlsx"
 - d. PAN calc land apply LogSheet_170522.xls"
 - e. Land Apply O&M Plan 2017 final_170719.docx"
 - f. Fertilizer application 2016 semi annual permit.pdf"
 - g. Form P PERMIT_G67A237_2019_OP_190131.pdf"
8. Lab test reports
 - a. Outfall 001, Midwest Labs SW 001 Feb 2019_154595600.pdf"
 - b. Outfall 001, Midwest labs SW 001 Dec 2018_22910921.pdf"
 - c. Outfall 001, Midwest labs SW 001 Oct 2018_22307470.pdf"
 - d. Outfall 002, Midwest Labs 002 Feb 2019_23416397.pdf"
 - e. Outfall 003, Midwest Labs 003 Feb 2019_23416398.pdf"
 - f. Outfalls 001, 002, 003, PACE surfactants 001 002 003 Feb 2019_60293706_frc.pdf"
 - g. Outfall 004 & 005; Midwest labs pond sludge Feb 2019_23380163_190217.pdf"
 - h. Outfall 005, Midwest labs thin stillage_12850255[4177]_170619.pdf"
 - i. Outfall 004 & 005; Midwest.labs.2018_004 & 005_18-073-0558.pdf"
 - j. Midwest Labs Raw well water Feb 2019_190212_23381059.pdf"



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9. Maps and Drawings

- a. GIS map Holt Co T62N-R40W 2010.PDF"
- b. Legal Descr Golden Triangle.PDF"
- c. Platt Map book (2010) T62N-R40W.pdf"
- d. GTE TOPO 2017 swppp [4601]_170804.pdf"
- e. GTE Drainage Map 2_190129.pdf"
- f. GTE land apply Google map_120314.jpg"
- g. 04 Settling Basin Contour, Sections, Details.PDF"
- h. MoDNR Well Search_190207.pdf"
- i. Soil survey descrp Wabash 13590_Map Unit Description_ Wabash silty clay, 0 to 2 percent slopes, rarely flooded---Holt County, Missouri_.pdf"
- j. Soil survey Wabash 13590 GTE.jpg"



Golden Triangle Energy
15053 Highway 111
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Application Summary

This operating permit application has been prepared to renew the existing permit which expires on August 31, 2019. This summary explains where the data came from for each outfall 001 through 005. Following the summary, forms A, C, D, and R are completed. The appendix includes , spreadsheet calculations, and supporting files, lab test data for each outfall, and maps and drawings used to complete the forms.

Outfall 001, Stormwater discharge.

The discharge flow was determined by calculating the average rainfall data from 2014 – 2018. Contour maps were used to determine the square feet of watershed to the stormwater pond. Pond surface evaporation was subtracted from the watershed flow. The gallons per year were converted to gallons per day over 365 days per year.

Actual flows reported on the eDMR monthly reports were from observations of a calibrated stick erected in the pond. Each one inch of water level change on the stick corresponds approximately to 65,900 gallons of water discharged. This pond discharges intermittently. The measured results are not felt to be as accurate as the calculated amount from precipitation data.

Occasionally a tank needs to be hydrotested after repair. This hydrotest water is discharged to the stormwater pond and outfall #001. Permit Form P is attached.

Outfall 002, Cooling tower and well water treatment discharge.

This flow is measured by an on-line flow meter that reads out to the digital computer system (DCS) in the control room. Flow transmitter FT 922-1 recorded the 2015 - 2018 flow to outfall 002 as 163,200 gallons per day averaged over 346 operating days per year.

The process flow diagram included shows a dashed line option to divert the reverse osmosis permeate from the City of Craig to the ozone treatment system and then to outfall 002. In the event the City of Craig cannot treat the entire 38,100 gallon per day flow from Golden Triangle, an option becomes necessary. The reverse osmosis permeate flow would be treated by ozone oxidation prior to discharge to outfall #002.

Outfall 003, Iron settling pond water overflow.

This flow is measured by an on-line flow meter that reads-out to the digital computer system (DCS) in the control room. Flow transmitter FT 700-1 recorded the 2015 – 2018 flow to the iron ponds as 45,600 gallons per day averaged over 346 operating days.



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Outfall 004 and 005, Iron pond settled sludge to north and south land sites respectively.

Sludge removal from settling ponds is contracted to professional sludge removers. Nutriject has been used for the last five years. The sludge is slurried out from the bottom of each pond with a suction/grinder pump. Sludge slurry is sprayed to the land-apply sites using a pump, hoses, and nozzle. Records and calculations are kept. This is further described in the Land Application Operating and Maintenance Manual attached.

Other agronomic applications of residuals as fertilizer were applied to the fields. These are approved and permitted (#02610) under the Missouri Fertilizer Law. Thin stillage is one residual applied. See test sample results in the appendix. These residuals are commercial fertilizers, therefore no Form I for wastewater application was included. Corn and soybean row crops were harvested on a rotational basis each year as described in the Land Application Operating and Maintenance Manual

Flow discharge to the City of Craig.

Permeate water from reverse osmosis treatment of evaporator condensate along with sanitary wastewater are discharged to the City. Flow meters FT990-4 and 990-6 measure the permeate flow daily. Sanitary flows were calculated from standard wastewater design manuals based on the number of employees.

The process flow diagram included shows a dashed line option to divert the reverse osmosis permeate from the City of Craig to the ozone treatment system and then to outfall 002. If the City of Craig cannot treat the entire 38,100 gallon per day flow from Golden Triangle, an option becomes necessary.



Golden Triangle Energy
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Spreadsheets, calculations, and supporting files



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15053 Highway 111
Craig, MO 64437

Lab test reports



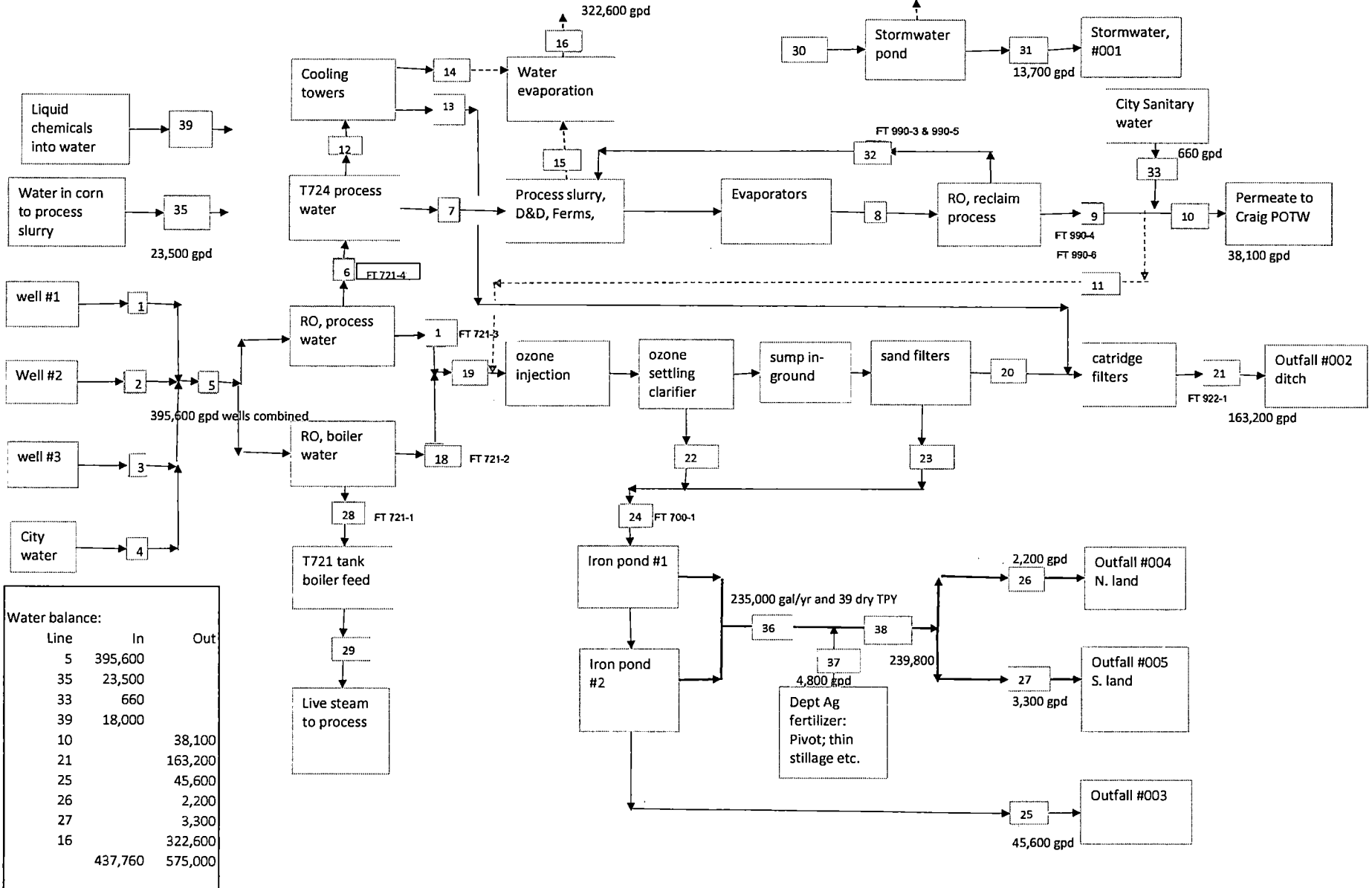
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15053 Highway 111
Craig, MO 64437

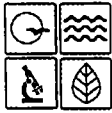
Maps and Drawings

Golden Triangle Energy, LLC
NPDES permit #MO-0126161

2019 NPDES Application renewal;
PFD. Gallons per day over average 345.71 days per year.

Rev. 2-15-12019





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

FOR AGENCY USE ONLY

CHECK NUMBER

DATE RECEIVED

FEE SUBMITTED

NOTE: PLEASE READ THE ACCOMPANYING INSTRUCTIONS BEFORE COMPLETING THIS FORM.

1. This application is for: (Select only one.)

- ☐ An operating permit for a new or unpermitted facility. Number of original construction permit: MO _____
☒ Renewal of an operating permit. Permit number: MO 0126161 Expiration date: 8-31-2019
☐ Modification of an operating permit. Permit number: MO _____ Modification reason: _____

1.1 Is the appropriate fee included with the application? (See instructions for appropriate fee.) ☒ Yes ☐ No

2. FACILITY

NAME	TELEPHONE NUMBER WITH AREA CODE		
Golden Triangle Energy, LLC	660-683-5646		
	EMAIL		
	www.goldentriangleenergy.com		
PHYSICAL ADDRESS (PHYSICAL)	CITY	STATE	ZIP CODE
15053 Highway 111	Craig	MO	64437

3. OWNER

NAME	TELEPHONE NUMBER WITH AREA CODE		
Golden Triangle Energy, LLC	660-683-5646		
	EMAIL		
	rhill@goldentriangleenergy.com		
MAILING ADDRESS	CITY	STATE	ZIP CODE
15053 Highway 111	Craig	MO	64437

3.1 Do you want to review draft permit prior to public notice? ☒ Yes ☐ No

4. CONTINUING AUTHORITY

NAME	TELEPHONE NUMBER WITH AREA CODE		
Same			
	EMAIL		
MAILING ADDRESS	CITY	STATE	ZIP CODE

5. OPERATOR

NAME	CERTIFICATE NUMBER	TELEPHONE NUMBER WITH AREA CODE	
Roger Hill/Steve Doughty	none	660-683-5009	
	EMAIL		
	sdoughty@goldentriangleenergy.com		
MAILING ADDRESS	CITY	STATE	ZIP CODE
15053 Highway 111	Craig	MO	64437

6. FACILITY CONTACT

NAME	TITLE	TELEPHONE NUMBER WITH AREA CODE
Roger Hill	General Manager	660-683-5005
	EMAIL	

7. ADDITIONAL FACILITY INFORMATION

7.1 Legal description of outfalls (Attach additional sheets, if necessary.)

001 NE 1/4 NW 1/4 Sec 13 T 62N R 40W HOL County
UTM Coordinates Easting (X): 298663 Northing (Y): 4451245

For Universal Transverse Mercator (UTM), Zone 15 North referenced to North American Datum 1983 (NAD83)

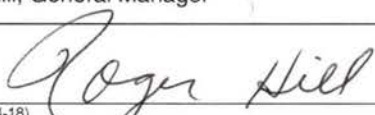
002 NW 1/4 NW 1/4 Sec 13 T 62N R 40W HOL County
UTM Coordinates Easting (X): 298495 Northing (Y): 4451246

003 NE 1/4 NW 1/4 Sec 13 T 62N R 40W HOL County
UTM Coordinates Easting (X): Northing (Y):

004 ne se 1/4 NW 1/4 Sec 13 T 62N R 40W HOL County
UTM Coordinates Easting (X): 298788 Northing (Y): 4451392

7.2 Primary standard industrial classification (SIC) and North American Industrial Classification System (NAICS) codes

001 – SIC 2085 and NAICS 312140 002 – SIC 2869 and NAICS 325193
003 – SIC 2079 and NAICS 311225 004 – SIC 2048 and NAICS 311119

8. ADDITIONAL FORMS AND MAPS NECESSARY TO COMPLETE APPLICATION (Complete all applicable forms.)			
A.	Is your facility a manufacturing, commercial, mining or silviculture waste treatment facility? If yes, complete Form C or 2F. (2F is EPA's Application for Storm Water Discharges Associated with Industrial Activity.)	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
B.	Is application for stormwater discharges only? If yes, complete Form C or 2F.	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
C.	Is your facility considered a "primary industry" under EPA guidelines: If yes, complete Forms C or 2F and D.	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
D.	Is wastewater land-applied? Liquid fertilizer residuals applied under Dept of Ag permit. If yes, complete Form I.	Yes <input type="checkbox"/>	No <input checked="" type="checkbox"/>
E.	Are biosolids, sludge, ash or residuals generated, treated, stored or land-applied? If yes, complete Form R.	Yes <input checked="" type="checkbox"/>	No <input type="checkbox"/>
F.	If you are a Class IA CAFO, disregard Parts D and E, above, but attach any revisions to the nutrient management plan.		
G.	Attach a map showing all outfalls and the receiving stream at 1" = 2,000' scale.		
9. ELECTRONIC DISCHARGE MONITORING REPORT (eDMR) SUBMISSION SYSTEM			
Per 40 CFR Part 127 National Pollutant Discharge Elimination System (NPDES) Electronic Reporting Rule, permittee shall report effluent limits and monitoring via an electronic system to ensure timely, complete, accurate and nationally consistent data. Check one of the following for this application to be considered complete. (Check only one.) To access the facility participation package, visit dnr.mo.gov/env/wpp/edmr.htm .			
<input type="checkbox"/> You completed and submitted with this permit application the required documentation to participate in the eDMR system.			
<input checked="" type="checkbox"/> You previously submitted required documentation to participate in the eDMR system and/or you currently use the eDMR system.			
<input type="checkbox"/> You submitted a written request for a waiver from electronic reporting. See instructions for information regarding waivers.			
9. DOWNSTREAM LANDOWNER(S) Attach additional sheets as necessary. See Instructions. PLEASE SHOW LOCATION ON MAP. SEE 8(D) ABOVE.			
NAME Ann Strauss Trust			
ADDRESS 5358 Saffron Dr.		CITY Dunwoody	STATE GA
		ZIP CODE 30338-3131	
11. I certify that I am familiar with the information contained in this application. To the best of my knowledge and belief, such information is true, complete and accurate. 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 to the Missouri Clean Water Commission available to the applicant under the Missouri Clean Water Law.			
NAME AND OFFICIAL TITLE (TYPE OR PRINT) Mr. Roger Hill, General Manager		TELEPHONE NUMBER WITH AREA CODE 660-683-5646	
SIGNATURE  6.m.		DATE SIGNED 2/26/2019	

MO 780-1479 (04-18)

**BEFORE MAILING, PLEASE ENSURE ALL SECTIONS ARE COMPLETE.
ALSO INCLUDE APPLICABLE ADDITIONAL FORMS.**

Submitting an incomplete application may result in the application being returned.

HAVE YOU INCLUDED THE FOLLOWING?

- | | |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <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 or 2F, if applicable
<input checked="" type="checkbox"/> Form D, if applicable | <input type="checkbox"/> Form I (Irrigation), if applicable
<input checked="" type="checkbox"/> Form R (Sludge), if applicable
<input checked="" type="checkbox"/> Revised nutrient management plan, if applicable |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

INSTRUCTIONS FOR COMPLETING FORM A - APPLICATION FOR NONDOMESTIC PERMIT

1. Check only one option. Nondomestic permit refers to a permit issued by the Water Protection Program for **nondomestic** wastewater treatment facilities, including industry, stormwater and Class IA concentrated animal feeding operations. **This includes nondomestic wastewater treatment facilities that incorporate domestic wastewater into the operating permit.**

1.1 OPERATING PERMIT FEES

Fee schedules appear in 10 CSR 20-6.011: s1.sos.mo.gov/cmsimages/adrules/csr/current/10csr/10c20-6.pdf.

- **Application for a permit renewal:** No fee required.
- **Application for a new permit:** Submit with the original permit application the annual operating permit fee listed below that correlates to the facility. The department bases these fees on the types of waste stream and the total design flow in millions of gallons per day (MGD) for discharges from the facility.
 - 1) Industrial wastewater and stormwater discharges subject to an effluent guideline and standard (ELG) as defined in 40 CFR Chapter 1 Subchapter N (www.epa.gov/eg/industrial-effluent-guidelines):

Design Flow \geq 1 MGD	=	\$5,000
Design Flow < 1 MGD	=	\$4,200
 - 2) Industrial wastewater discharges not included under category (1), above:

Design Flow \geq 1 MGD	=	\$3,000
Design Flow < 1 MGD	=	\$1,800
 - 3) Industrial stormwater discharges not included under category (1), above:

Design Flow \geq 1 MGD	=	\$2,800
Design Flow < 1 MGD	=	\$1,800
 - 4) Concentrated Animal Feeding Operation:

Class IA operation	=	\$5,000
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- **Application for Modification of a Permit:** If the application is for a modification of a permit, submit the appropriate modification fee with the request.

Major Modification	=	25% of annual operating fee
Minor Modification	=	\$100

Note: Changes to facility's name and address when the owner, operator and continuing authority remain the same do not constitute transfers, according to the department.

The department will return an incomplete permit application and/or related engineering documents if they are not completed within the time frame established in a comment letter from the department to the owner. Applicant will forfeit permit fees for returned applications. Applicant will forfeit fees if applicant withdraws application that the department is processing.

2. Facility - Provide the name by which this facility is known locally. Example: Southwest Sewage Treatment Plant, Country Club Mobile Home Park, etc. Also include the street address or location of the facility. If the facility lacks a street name or route number, give the names of the closest intersections, highways, county roads, etc.
3. Owner - Provide the legal name and address of owner.
- 3.1 Before placing a permit on public notice, the department will provide applicant 10 days to review the draft permit for nonsubstantive drafting errors. To expedite issuance, applicants may waive the opportunity to review draft prior to public notice. Check Yes to review the draft permit before public notice. Check No to waive the process and expedite the permit.
4. Continuing Authority - This is the permanent organization that will serve as the continuing authority for the operation, maintenance and modernization of the facility. Access the regulatory requirement regarding continuing authority at <http://s1.sos.mo.gov/cmsimages/adrules/csr/current/10csr/10c20-6.pdf> or contact the department's appropriate regional office.
5. Operator - Provide the name, certificate number and telephone number of the person operating the facility.
6. Facility Contact - Provide the name, title and work telephone number of someone who is thoroughly familiar with the operation of the facility and with the facts reported in this application and who can be contacted by the department, if necessary.

INSTRUCTIONS FOR COMPLETING FORM A – APPLICATION FOR NONDOMESTIC PERMIT (cont.)

- 7.1 An outfall is the point at which wastewater is discharged. Give outfalls in terms of the legal description of the facility. Global positioning system (GPS) is a satellite-based navigation system. The department prefers the use of a GPS receiver at the outfall pipe and submittal of the displayed coordinates. If access to a GPS receiver is not available, use a mapping system to approximate the coordinates; the department's mapping system is available at dnr.mo.gov/internetmapviewer/.
- 7.2 List only your primary standard industrial classification (SIC) and the North American Industry Classification System code for each outfall. The U.S. Office of Management and Budget devised the SIC system to cover all economic activities. To find the correct SIC code, check unemployment insurance forms or contact the Missouri Division of Employment Security, 573-751-3215. The primary SIC code is for the operation that generates most revenue. If this information is not available, you may use the number of employees or, secondly, production rate to determine the SIC code. Find additional information for standard industrial codes at osha.gov/pls/imis/sicsearch.html and for the North American Industry Classification System at www.census.gov/naics, or contact the appropriate regional office of the Missouri Department of Natural Resources.
8. If you answer yes to A, B, C, D or E, complete the supplementary form(s). Submit a U.S. Geological Survey 1" = 2,000' scale map with the permit application showing all outfalls, receiving streams and locations of downstream property owners. Access map at dnr.mo.gov/internetmapviewer/ or from the department's Missouri Geological Survey in Rolla at 573-368-2125.
9. Electronic Discharge Monitoring Report (eDMR) Submission System – Visit the eDMR site at dnr.mo.gov/env/wpp/edmr.htm and click on the "Facility Participation Package" link. The facility participation package contains the eDMR permit holder and certifier registration form as well as information about the eDMR system.

The department may grant waivers to electronic reporting per 40 CFR 127.15 under special circumstances. Submit a written request to the department for approval. The department may grant waivers to facilities owned or operated by:

- A. Members of religious communities that choose not to use certain technologies or
 - B. Permittees located in areas with limited broadband access. The National Telecommunications and Information Administration (NTIA) in collaboration with the Federal Communications Commission (FCC) created a broadband map available on the Internet: broadbandmap.gov/. Please contact the department if you need assistance.
10. Provide the name and address of the first downstream landowner, different from that of the permitted facility, through whose property the discharge will flow. Also, indicate location on the map. For discharges that leave the permitted facility and flow under a road or highway, or along the right-of-way, the downstream property owner is the landowner on whose land the discharge flows to after leaving the right-of-way. For no-discharge facilities, provide information for the location to where discharge would flow. For land application sites, include owners of the land application sites and all adjacent landowners.
11. Signature – One person, described in A, B or C as follows, must sign the application; the signature must be **original**.
- A. For a corporation, by an officer having responsibility for the overall operation of the regulated facility or activity or for environmental matters.
 - B. For a partnership or sole proprietorship, by a general partner or the proprietor.
 - C. For a municipal, state, federal or other public facility, by either a principal executive officer or by an individual having overall responsibility for environmental matters at the facility.
12. Submitting an incomplete application may result in the application being returned.

Submit completed form and applicable permit fees to: Missouri Department of Natural Resources
Water Protection Program
P.O. Box 176
Jefferson City, MO 65102-0176

For more information, contact:

Appropriate regional office of the Missouri Department of Natural Resources.
Go to dnr.mo.gov/regions/ro-map.pdf to access a map of regional offices and contact information.

Or
Missouri Department of Natural Resources
Water Protection Program
Operating Permits Section
P.O. Box 176
Jefferson City, MO 65102-0176
800-361-4827 or 573-751-6825
www.dnr.mo.gov/env/wpp/index.html

6.30 Other Limiting Pollutants for Land Application Rates. Specify any other pollutants that are most limiting for determining land application rates. Include any additional significant pollutants from Section 4 that is not already listed in Section 6.00. Attach extra sheets as necessary.

Pollutant	Concentration (mg/kg dry weight)			Design-LBS/ Acre/Year	Type of Samples	Number Samples	Sample Location	Sample Period
	Minimum	Maximum	Average					
potassium	187	2,087	859			5	sludge bot	2019-8yr
sulfur	749	6830	2,621			5	"	"
iron	14,870	277,600	139,677			5	"	"
						5	"	"
barium	321	5300	2,812			5	"	"
solids %	1.5	17.7	6.3			5	"	"
phosphate P2O5	3,493	77,249	39,875			5	"	"
potash K2O	225	2,513	1,034			5	"	"
magnesium	1,590	12,174	6,235			5	"	"

6.40 Requirements for Public Use Sites. Complete this if land application onto public use or public access sites or if material will be distributed for general public use. Fecal Coliform, Salmonella and Enteric Virus must be tested if the biosolids include waste material from humans, animals, vegetables or organic matter.

Pollutant	Concentration (mg/kg dry weight)			Type of Samples	Number Samples	Sample Location	Sample Period
	Minimum	Maximum	Average				
Total Dioxin TEQ*							
*Required Only for public access sites. TEQ = Toxicity Equivalents for CDD and CDF isomers per EPA Publication EPA/625/3-89/016 and EPA method 1613. Detection limits must be less than 1.0 ppt.							
Fecal Coliform							
Salmonella							
Enteric Virus							
Other (specify)							

7.00 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

Nayes associates, LLC / Terrence Nayes, PE

SIGNATURE

Terrence Nayes

OWNER OR AUTHORIZED REPRESENTATIVE - Name and Official Title

Roger Hill, General Manager

SIGNATURE

Roger Hill G.M.

(TYPE OR PRINT)

TERRENCE LEE

NAYES

NUMBER

2003014620

(TYPE OR PRINT)

PROFESSIONAL ENGINEER

TELEPHONE NUMBER (area code and number)

(952) 239-5377

DATE SIGNED

2-18-2019

TELEPHONE NUMBER (area code and number)

606835646

DATE SIGNED

2/26/2019

Expires 12-31-19

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											
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.											OUTFALL NO. 001

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)		4. INTAKE (optional)			
	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	
A. Biochemical Oxygen Demand (BOD)	15	1.7					1	mg/l	lb/day			
B. Chemical Oxygen Demand (COD)	29	3.3			25	1.7	3	mg/l	lb/day			
C. Total organic Carbon (TOC)	7.2	0.8					1	mg/l	lb/day			
D. Total Suspended Solids (TSS)	5	0.6					1	mg/l	lb/day			
E. Ammonia (as N)	ND	0					1	mg/l	lb/day			
F. Flow	VALUE 2,533,775		VALUE		VALUE 13,700		Calc.		gal/day	VALUE		
G. Temperature (winter)	VALUE 3		VALUE		VALUE 0		3	°C		VALUE		
H. Temperature (summer)	VALUE 22		VALUE		VALUE 20		4	°C		VALUE		
I. pH	MINIMUM 7.1	MAXIMUM 8.0	MINIMUM	MAXIMUM			6	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. 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		

CONVENTIONAL AND NONCONVENTIONAL POLLUTANTS

A. Bromide (24959-67-9)	X		ND	0					1	mg/l	lb/day			
B. Chlorine, Total Residual		X								mg/l	lb/day			
C. Color		X												
D. Fecal Coliform	X		No test repor							CFU/100 ml				
E. Fluoride (16984-48-8)	X		ND	0					1	mg/l	lb/day			
F. Nitrate - Nitrate (as N)	X		ND	0					1	mg/l	lb/day			

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	
G. Nitrogen, Total Organic (as N)	X		1.04	0.1					1	mg/l	lb/day			
H. Oil and Grease	X		5	0.6			5	0.6	3	mg/l	lb/day			
I. Phosphorus (as P), Total (7723-14-0)	X		0.27	0.0					1	mg/l	lb/day			
J. Sulfate (as SO ₄) (14808-79-8)	X		7.9	0.9					1	mg/l	lb/day			
K. Sulfide (as S)	X		ND	0					1	mg/l	lb/day			
L. Sulfite (as SO ₃) (14265-45-3)	X		ND	0					1	mg/l	lb/day			
M. Surfactants	X		ND	0					1	mg/l	lb/day			
N. Aluminum, Total (7429-90-5)	X		0.09	0.0					1	mg/l	lb/day			
O. Barium, Total (7440-39-3)	X		0.039	0.0					1	mg/l	lb/day			
P. Boron, Total (7440-42-8)	X		0.07	0.0					1	mg/l	lb/day			
Q. Cobalt, Total (7440-48-4)	X		ND	0.0					1	mg/l	lb/day			
R. Iron, Total (7439-89-6)	X		0.20	0.0					1	mg/l	lb/day			
S. Magnesium, Total (7439-95-4)	X		4.00	0.5					1	mg/l	lb/day			
T. Molybdenum, Total (7439-98-7)	X		ND	0					1	mg/l	lb/day			
U. Manganese, Total (7439-96-5)	X		0.02	0.0					1	mg/l	lb/day			
V. Tin, Total (7440-31-5)	X		ND	0					1	mg/l	lb/day			
W. Titanium, Total (7440-32-6)	X		0.006	0.0					1	mg/l	lb/day			

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		ND	0					1	mg/l	lb/day				
2M. Arsenic, Total (7440-38-2)	X		ND	0					1	mg/l	lb/day				
3M. Beryllium, Total (7440-41-7)	X		ND	0					1	mg/l	lb/day				
4M. Cadmium, Total (7440-43-9)	X		ND	0					1	mg/l	lb/day				
5M. Chromium III (16065-83-1)	X		ND	0					1	mg/l	lb/day				
6M. Chromium VI (18540-29-9)	X		ND	0					1	mg/l	lb/day				
7M. Copper, Total (7440-50-8)	X		ND	0					1	mg/l	lb/day				
8M. Lead, Total (7439-92-1)	X		ND	0					1	mg/l	lb/day				
9M. Mercury, Total (7439-97-9)		X	ND	0					1	mg/l	lb/day				
10M. Nickel, Total (7440-02-0)	X		ND	0					1	mg/l	lb/day				
11M. Selenium, Total (7782-49-2)	X		0.001	0.0					1	mg/l	lb/day				
12M. Silver, Total (7440-22-4)	X		ND	0					1	mg/l	lb/day				
13M. Thallium, Total (7440-28-0)	X		ND	0					1	mg/l	lb/day				
14M. Zinc, Total (7440-66-8)	X		0.03	0.0					1	mg/l	lb/day				
15M. Cyanide, Amenable to Chlorination	X		ND	0					1	mg/l	lb/day				
16M. Phenols, Total	X		ND	0					1	mg/l	lb/day				
RADIOACTIVITY															
(1) Alpha Total		X													
(2) Beta Total		X													
(3) Radium Total		X													
(4) Radium 226 Total		X													

INSTRUCTIONS FOR FILLING OUT APPLICATION FOR DISCHARGE PERMIT FORM C – MANUFACTURING, COMMERCIAL, MINING AND SILVICULTURE OPERATIONS.

All blanks must be filled in when the application is submitted to the appropriate regional office (see map). The form must be signed as indicated.

This application is to be completed only for wastewater facilities with a discharge. Include any facility with possibility of discharge, even if normally there is no discharge. If this form is not adequate for you to describe your existing operation, then sufficient information should be attached so that an evaluation of the discharge can be made.

1.00 Name of Facility – By what title or name is this facility known locally?

1.10 and 1.20 Self-explanatory.

2.00 List in descending order of significance the four digit Standard Industrial Classification (SIC) codes that best describe your facility in terms of the principal products or services you produce or provide. Also, specify each classification in words.

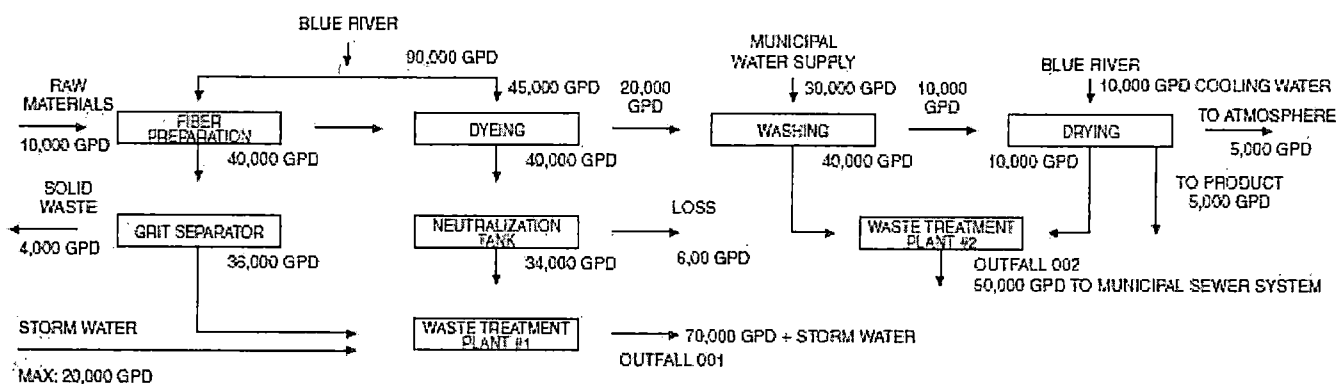
SIC code numbers are descriptions that may be found in the "Standard Industrial Classification Manual" prepared by the Executive Office of the President, Office of Management and Budget, that is available from the Government Printing Office, Washington, D.C. Use the current edition of the manual. If you have any questions concerning the appropriate SIC code for your facility, contact the Missouri Department of Natural Resources Regional office in your area (see map).

2.10 Point of discharge should be given in terms of the legal description of the waste treatment plant, location or sufficient information so that it may be located.

2.20 Receiving Water – the name of the stream to which the discharge is directed and any subsequent tributary until a continuous flowing stream is reached.

2.30 Self-explanatory.

2.40 A. The line drawing should show generally the route taken by water in your facility from intake to discharge. Show all operations contributing wastewater, including process and production areas, sanitary flows, cooling water and storm water runoff. You may group similar operations into a single unit labeled to correspond to the more detailed listing. The water balance should show average and maximum flows. Show all significant losses of water to products, atmosphere, discharge and public sewer systems. You should use actual measurements whenever available; otherwise, use your best estimate. An example of any acceptable line drawing appears below.



SCHEMATIC OF WATER FLOW
BROWN MILLS, INC.
CITY, COUNTY, STATE

B. List all sources of wastewater to each outfall. Operations may be described in general terms (for example, "dye-making reactor" or a distillation tower"). You may estimate the flow contributed by each source if no data is available, and for storm water, you may use any reasonable measure of duration, volume or frequency. For each treatment unit, indicate its size, flow rate and retention time, and describe the ultimate disposal of any solid or liquid wastes not discharged. Treatment units should be listed in order and you should select the proper code from Table A to fill in column 3B for each treatment unit. Insert "XX" into column 3B if no code corresponds to a treatment unit you list.

TABLE A – CODES FOR TREATMENT UNITS

PHYSICAL TREATMENT PROCESSES

1-A	.....Ammonia Stripping	1-M	.....Grit Removal
1-B	.....Dialysis	1-N	.....Microstraining
1-C	.....Diatomaceous Earth Filtration	1-O	.....Mixing
1-D	.....Distillation	1-P	.....Moving Bed Filters
1-E	.....Electrodialysis	1-Q	.....Multimedia Filtration
1-F	.....Evaporation	1-R	.....Rapid Sand Filtration
1-G	.....Flocculation	1-S	.....Reverse Osmosis (Hyperfiltration)
1-H	.....Flotation	1-T	.....Screening
1-I	.....Foam Fractionation	1-U	.....Sedimentation (Settling)
1-J	.....Freezing	1-V	.....Slow Sand Filtration
1-K	.....Gas-Phase Separation	1-W	.....Solvent Extraction
1-L	.....Grinding (Comminutors)	1-X	.....Sorption

CHEMICAL TREATMENT PROCESSES

2-A	.....Carbon Absorption	2-G	.....Disinfection (Ozone)
2-B	.....Chemical Oxidation	2-H	.....Disinfection (Other)
2-C	.....Chemical Precipitation	2-I	.....Electrochemical Treatment
2-D	.....Coagulation	2-J	.....Ion Exchange
2-E	.....Dechlorination	2-K	.....Neutralization
2-F	.....Disinfection (Chlorine)	2-L	.....Reduction

BIOLOGICAL TREATMENT PROCESSES

3-A	.....Activated Sludge	3-E	.....Pre-Aeration
3-B	.....Aerated Lagoons	3-F	.....Spray Irrigation/Land Application
3-C	.....Anaerobic Treatment	3-G	.....Stabilization Ponds
3-D	.....Nitrification-Denitrification	3-H	.....Trickling Filtration

OTHER PROCESSES

4-A	.....Discharge to Surface Water	4-C	.....Reuse/Recycle of Treated Effluent
4-B	.....Ocean Discharge Through Outfall	4-D	.....Underground Injection

SLUDGE TREATMENT AND DISPOSAL PROCESSES

5-A	.....Aerobic Digestion	5-M	.....Heat Drying
5-B	.....Anaerobic Digestion	5-N	.....Heat Treatment
5-C	.....Belt Filtration	5-O	.....Incineration
5-D	.....Centrifugation	5-P	.....Land Application
5-E	.....Chemical Conditioning	5-Q	.....Landfill
5-F	.....Chlorine Treatment	5-R	.....Pressure Filtration
5-G	.....Composting	5-S	.....Pyrolysis
5-H	.....Drying Beds	5-T	.....Sludge Lagoons
5-I	.....Elutriation	5-U	.....Vacuum Filtration
5-J	.....Flotation Thickening	5-V	.....Vibration
5-K	.....Freezing	5-W	.....Web Oxidation
5-L	.....Gravity Thickening		

2.40 C. A discharge is intermittent unless it occurs without interruption during the operating hours of the facility, except for infrequent shutdowns for maintenance, process changes or other similar activities. A discharge is seasonal if it occurs only during certain parts of the year. Fill in every applicable column in this item for each source of intermittent or seasonal discharges. Base your answers on actual data whenever available; otherwise, provide your best estimate. Report the highest daily value for flow rate and total volume in the "Maximum Daily" columns. Report the average of all daily values measures during days when discharge occurred within the last year in the "Long Term Average" columns.

2.50 A. All effluent guidelines promulgated by EPA appear in the Federal Register and are published annually in 40 CFR Subchapter N. A guideline applies to you if you have any operations contributing process wastewater in any subcategory covered by BPT, BCT, or BAT guidelines. If you are unsure whether you are covered by a promulgated effluent guideline, check with your Missouri Department of Natural Resources' Regional Office. You must check yes if an applicable effluent guideline has been promulgated, even if the guideline limitations are being contested in court. If you believe that a promulgated effluent guideline has been remanded for reconsideration by a court and does not apply to your operations, you may check no.

B. An effluent guideline is expressed in terms of production (or other measure of operation) if the limitations are expressed as mass of pollutant per operational parameter; for example, "pounds of BOD per cubic foot of logs from which bark is removed," or "pounds of TSS per megawatt hour of electrical energy consumed by smelting furnace." An example of a guideline not expressed in terms of a measure of operation is one which limits the concentration of pollutants.

C. This item must be completed only if you checked yes to item B. The production information requested here is necessary to apply effluent guidelines to your facility and you may not claim it as confidential. However, you do not have to indicate how the reported information was calculated.

Report quantities in the units of measurement used in the applicable effluent guideline. The figures provided must be a measure of actual operation over a one month period, such as the production for the highest month during the last twelve months, or the monthly average production for the highest year of the last five years, or other reasonable measure of actual operation, but may not be based on design capacity or on predictions of future increases in operation.

2.60 A. If you check yes to this question, complete all parts of the chart, or attach a copy of any previous submission you have made containing the same information.

B. You are not required to submit a description of future pollution control projects if you do not wish to or if none is planned.

3.00 These items require you to collect and report data on the pollutants discharged from each of your outfalls. Each part of this item addresses a different set of pollutants and must be completed in accordance with the specific instructions for that part. The following general instructions apply to the entire item.

GENERAL INSTRUCTIONS. Part A requires you to report at least one analysis for each pollutant. Part B requires you to mark "X" in either the "Believe Present" column or the "Believe Absent" column (column 2A or 2B, Part B) based on your best estimate, and test for those which you believe to be present. Part C requires you to list any of a group of pollutants which you believe to be present, with a brief explanation of why you believe it to be present. (See specific instructions on the form and below Parts A through C).

Base your determination that a pollutant is present in or absent from your discharge on your knowledge of your raw materials, maintenance chemicals, intermediate and final products and byproducts, and any previous analyses known to you of your effluent or of any similar effluent. (For example, if you manufacture pesticides, you should expect those pesticides to be present in contaminated storm water runoff.) If you would expect a pollutant to be present solely as a result of its presence in your intake water, you must mark "Believe Present" but you are not required to analyze for that pollutant. Instead, mark an "X" in the "Intake" column.

REPORTING. All levels must be reported as a concentration and as total mass. You may report some or all of the required data by attaching separate sheets of paper. (Use the following abbreviations in the columns headed "Units" (column 3, Part A, and column 4, Part B).

CONCENTRATION

ppm	..... parts per million
mg/L	..... milligrams per liter
ppb	..... parts per billion
ug/L	..... micrograms per liter

MASS

lbs	..... pounds
ton	..... tons (English tons)
mg	..... Milligrams
g	..... grams
kg	..... kilograms
T	..... tonnes (metric tons)

If you measure only one daily value, complete only the "Maximum Daily Values" columns and insert "1" into the "number of analyses" columns (columns 2A and 2B, Part A, and columns 3A and 3D, Part B). The Missouri Department of Natural Resources may require you to conduct additional analyses to further characterize your discharges.

For composite samples, the daily value is the total mass or average concentration found in a complete sample taken over the operating hours of the facility during a 24 hour period; for grab samples, the daily value is the arithmetic or flow-weighted total mass or average concentration found in a series of at least four grab samples taken over the operating hours of the facility during a 24 hour period.

If you measure more than one daily value for a pollutant, determine the average of all values within the last year and report the concentration and mass under the "Long Term Average Values" columns (column 2C, Part A, and column 3C, Part B), and the total number of daily values under the "Number of Analyses" columns (column 2D, Part A, and column 3D, Part B). Also, determine the average of all daily values taken during each calendar month, and report the highest average of all daily values taken during each calendar month, and report the highest average under the "Maximum 30 Day Values" columns (column 2B, Part A, and column 3B, Part B).

SAMPLING. The collection of the samples for the reported analyses should be supervised by a person experienced in performing sampling of industrial wastewater. You may contact your Missouri Department of Natural Resources' Regional Office for detailed guidance on sampling techniques and for answers to specific questions. Any specific requirements contained in the applicable analytical methods should be followed for sample containers, sample preservation, holding times, the collection of duplicate samples, etc. The time when you sample should be representative of your normal operation, to the extent feasible, with all processes which contribute wastewater in normal operation and with your treatment system operating properly with no system upsets. Samples should be collected from the center of the flow channel, where turbulence is at a maximum, at a site specified in your present permit or at any site adequate for the collection of a representative sample.

Grab and composite samples are defined as follows:

GRAB SAMPLE. An individual sample of at least 100 milliliters collected at a randomly selected time over a period not exceeding 15 minutes.

COMPOSITE SAMPLE. A combination of at least eight sample aliquots of at least 100 milliliters, collected at periodic intervals during the operating hours of a facility over a 24 hour period. For volatile pollutants, aliquots must be combined in the laboratory immediately before analysis. The composite must be flow proportional; either the time interval between each aliquot or the volume of each aliquot must be proportional to either the stream flow at the time of sampling or the total stream flow since the collection of the previous aliquot. Aliquots may be collected manually or automatically.

ANALYSIS. You must use test methods promulgated in 40 CFR Part 136; however, if none has been promulgated for a particular pollutant, you may use any suitable method for measuring the level of the pollutant in your discharge provided that you submit a description of the method or a reference to a published method. Your description should include the sample holding times, preservation techniques and the quality control measures which you used.

If you have two or more substantially identical outfalls, you may request permission from the Missouri Department of Natural Resources to sample and analyze only one outfall and submit the results of the analysis for other substantially identical outfalls. If your request is granted by the Missouri Department of Natural Resources, on a separate sheet attached to the application form, identify which outfall you did test and describe why the outfalls which you did not test are substantially identical to the outfall which you did test.

REPORTING OF INTAKE DATA. You are not required to report data under the "Intake" columns unless you wish to demonstrate your eligibility for a "net" effluent limitation for one or more pollutants, that is, an effluent limitation adjusted by subtracting the average level of the pollutant(s) present in your intake water. National Pollutant Discharge Elimination System (NPDES) regulations allow net limitations only in certain circumstances. To demonstrate your eligibility, under the Intake columns report the average of the results of analyses on your intake water (if your water is treated before use, test the water after it is treated), and attach a separate sheet containing the following for each pollutant:

1. A statement that the intake water is drawn from the body of water into which the discharge is made. (Otherwise, you are not eligible for net limitations.)
 2. A statement of the extent to which the level of the pollutant is reduced by treatment of your wastewater. (Your limitations will be adjusted only to the extent that the pollutant is not removed.)
 3. When applicable, a demonstration of the extent to which the pollutants in the intake vary physically, chemically, or biologically from the pollutants contained in your discharge. For example, when the pollutant represents a class of compounds. Your limitations will be adjusted only to the extent that the intake pollutants do not vary from the discharged pollutants.
- 3.00 Part A must be completed by all applicants for all outfalls, including outfalls containing only noncontact cooling water or storm runoff. However, at your request, the Missouri Department of Natural Resources may waive the requirements to test for one or more of these pollutants, upon a determination that testing for the pollutant(s) is not appropriate for your effluent.
- Use composite samples for all pollutants in this part, except use grab samples for pH and temperature. See discussion in instructions above for definitions of the columns in Part A. The "Long Term Average Values" column (column 2C) and "Maximum 30 Day Values" column (column 2B) are not compulsory but should be filled out if data is available.
- 3.00 Part B must be completed by all applicants for all outfalls, including outfalls containing only noncontact cooling water or storm runoff.
- Use composite samples for all pollutants you analyze for in this part, except use grab samples for residual chlorine, oil and grease and fecal coliform. The Long Term Average Values column (column 3C) and Maximum 30 Day Values column (column 3B) are not compulsory but should be filled out if data is available.
- 3.00 List any pollutants in Table B that you believe to be present and explain why you believe them to be present in part C. No analysis is required, but you have analytical, you must report it.

TABLE B – TOXIC POLLUTANTS AND HAZARDOUS SUBSTANCES REQUIRED TO BE IDENTIFIED BY APPLICANTS IF EXPECTED TO BE PRESENT

TOXIC POLLUTANT	HAZARDOUS SUBSTANCES	HAZARDOUS SUBSTANCES
Asbestos	Dichlorvos	Nalad
	Diethylamine	Napthenic acid
HAZARDOUS SUBSTANCES	Dimethylamine	Nitrotoluene
	Dintrobenzene	Parathion
Acetaldehyde	Diquat	Phenolsulfonate
Allyl alcohol	Disulfoton	Phosgene
Allyl chloride	Diuron	Propargite
Amyl acetate	Epichlorohydrin	Propylene oxide
Aniline	Ethion	Pyrethrins
Benzonitrile	Ethylene diamine	Quinoline
Benzyl chloride	Ethylene dibromide	Resorcinol
Butyl acetate	Formaldehyde	Strontium
Butylamine	Furfural	Strychnine
Captan	Guthion	Sytrene

TABLE B – (continued)

HAZARDOUS SUBSTANCES	HAZARDOUS SUBSTANCES	HAZARDOUS SUBSTANCES
Carbaryl	Isoprene	2, 4, 5-T (2,4,5-Trichloro- phenoxyacetic acid)
Carbofuran	Isopropanolamine	TDE (Tetrachlorodiphenyl ethane)
Carbon disulfide	Kelthane	2, 4, 5-TP (2-(2,4,5-Trichloro- phenoxy) propanoic acid)
Chlorpyrifos	Kepone	Trichlorofon
Coumaphos	Malathion	Triethanolamine
Cresol	Mercaptodimethur	Triethaylamine
Crotonaldehyde	Methoxychlor	Uranium
2,4-D (2,4-Dichloro- Phenoxyacetic acid)	Methyl mercaptan	Vanadium
Diazinon	Methyl parathion	Vinyl acetate
Dicamba	Mevinphos	Xylene
Dichlobenil	Mexacarbate	Xylenol
2,2-Dichloropropionic acid	Monethyl amine	Zirconium
	Monomethyl amine	

3.10 Self-explanatory. Additional information may be requested by the Missouri Department of Natural Resources.

3.20 Self-explanatory.

3.30 The Clean Water Act provides for severe penalties for submitting false information on this application form.

Section 309(c)(2) of the Clean Water Act provides that "Any person who knowingly makes any false statement, representation, or certification in any application . . . shall upon conviction, be punished by a fine of no more \$10,000 or by imprisonment for not more than six months, or both.

All applications must be signed as follows and the signature must be original.

- A. For a corporation, by an officer having responsibility for the overall operation of the regulated facility or activity or for environmental matters.
- B. For a partnership or sole proprietorship, by a general partner or the proprietor.
- C. For a municipal, state, federal or other public facility, by either a principal executive officer or by an individual having overall responsibility for environmental matters at the facility.

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	Golden Triangle Energy, LLC	MO-0126161	OUTFALL NO. 002
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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)		4. INTAKE (optional)			
	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	
A. Biochemical Oxygen Demand (BOD)	3	4.1					1	mg/l	lb/day			
B. Chemical Oxygen Demand (COD)	8	10.9					1	mg/l	lb/day			
C. Total organic Carbon (TOC)	2.8	3.8					1	mg/l	lb/day			
D. Total Suspended Solids (TSS)	95	129.3					1	mg/l	lb/day			
E. Ammonia (as N)	ND	ND					1	mg/l	lb/day			
F. Flow	VALUE		VALUE 185,100		VALUE 163,200		1,383		gal/day	VALUE		
G. Temperature (winter)	VALUE 13		VALUE		VALUE 14		6	°C		VALUE		
H. Temperature (summer)	VALUE 19		VALUE		VALUE 18		6	°C		VALUE		
I. pH	MINIMUM 7.3	MAXIMUM 7.7	MINIMUM	MAXIMUM			12	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. 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			

CONVENTIONAL AND NONCONVENTIONAL POLLUTANTS

A. Bromide (24959-67-9)			0.1	0.1					1	mg/l	lb/day			
B. Chlorine, Total Residual			0.017	0.0			0.017	0.0	12	mg/l	lb/day			
C. Color		X												
D. Fecal Coliform			ND						1	CFU/100 ml				
E. Fluoride (16984-48-8)			1.0	1.4					1	mg/l	lb/day			
F. Nitrate - Nitrate (as N)			1.55	2.1			1.3	1.7	19	mg/l	lb/day			

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)			ND	ND					1	mg/l	lb/day			
H. Oil and Grease			ND	ND					1	mg/l	lb/day			
I. Phosphorus (as P), Total (7723-14-0)			0.44	0.6			0.13	0.2	19	mg/l	lb/day			
J. Sulfate (as SO ₄) (14808-79-8)			227	309			194	264	19	mg/l	lb/day			
K. Sulfide (as S)			ND	ND					1	mg/l	lb/day			
L. Sulfite (as SO ₃) (14265-45-3)			ND	ND					1	mg/l	lb/day			
M. Surfactants			ND	ND					1	mg/l	lb/day			
N. Aluminum, Total (7429-90-5)			ND	ND			0.0	0.0	17	mg/l	lb/day			
O. Barium, Total (7440-39-3)			0.521	0.7					1	mg/l	lb/day			
P. Boron, Total (7440-42-8)			0.15	0.2					1	mg/l	lb/day			
Q. Cobalt, Total (7440-48-4)			ND	ND					1	mg/l	lb/day			
R. Iron, Total (7439-89-6)			0.39	0.5			0.10	0.1	19	mg/l	lb/day			
S. Magnesium, Total (7439-95-4)			102.2	139.1					1	mg/l	lb/day			
T. Molybdenum, Total (7439-98-7)			0.01	0.0					1	mg/l	lb/day			
U. Manganese, Total (7439-96-5)			1.47	2.0			0.64	0.9	19	mg/l	lb/day			
V. Tin, Total (7440-31-5)			ND	ND					1	mg/l	lb/day			
W. Titanium, Total (7440-32-6)			0.019	0.0					1	mg/l	lb/day			

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. 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		
METALS, AND TOTAL PHENOLS															
1M. Antimony, Total (7440-36-9)			ND	ND					1	mg/l	lb/day				
2M. Arsenic, Total (7440-38-2)			0.39	0.5			0.11	0.1	19	mg/l	lb/day				
3M. Beryllium, Total (7440-41-7)			ND	ND					1	mg/l	lb/day				
4M. Cadmium, Total (7440-43-9)			ND	ND					1	mg/l	lb/day				
5M. Chromium III (16065-83-1)			ND	ND					1	mg/l	lb/day				
6M. Chromium VI (18540-29-9)			ND	ND					1	mg/l	lb/day				
7M. Copper, Total (7440-50-8)			ND	ND					1	mg/l	lb/day				
8M. Lead, Total (7439-92-1)			ND	ND					1	mg/l	lb/day				
9M. Mercury, Total (7439-97-6)			ND	ND					1	mg/l	lb/day				
10M. Nickel, Total (7440-02-0)			ND	ND					1	mg/l	lb/day				
11M. Selenium, Total (7782-49-2)			ND	ND					1	mg/l	lb/day				
12M. Silver, Total (7440-22-4)			ND	ND					1	mg/l	lb/day				
13M. Thallium, Total (7440-28-0)			ND	ND					1	mg/l	lb/day				
14M. Zinc, Total (7440-66-6)			ND	ND					1	mg/l	lb/day				
15M. Cyanide, Amenable to Chlorination			ND	ND					1	mg/l	lb/day				
16M. Phenols, Total			ND	ND					1	mg/l	lb/day				
RADIOACTIVITY															
(1) Alpha Total		X													
(2) Beta Total		X													
(3) Radium Total		X													
(4) Radium 226 Total		X													

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	Golden Triangle Energy, LLC MO-0126161	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)		C. LONG TERM AVRG. VALUE (if available)			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	
A. Biochemical Oxygen Demand (BOD)	3	1.1					1	mg/l	lb/day			
B. Chemical Oxygen Demand (COD)	12	4.6					1	mg/l	lb/day			
C. Total organic Carbon (TOC)	3.2	3.2					1	mg/l	lb/day			
D. Total Suspended Solids (TSS)	74	28.2					1	mg/l	lb/day			
E. Ammonia (as N)	0.21	0.1					1	mg/l	lb/day			
F. Flow	VALUE		VALUE 53,500		VALUE 45,700		1,383		gal/day	VALUE		
G. Temperature (winter)	VALUE 4		VALUE		VALUE 7		6	°C		VALUE		
H. Temperature (summer)	VALUE 27		VALUE		VALUE 22		6	°C		VALUE		
I. pH	MINIMUM 7.3	MAXIMUM 8.1	MINIMUM	MAXIMUM			12	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.

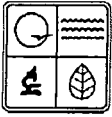
1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. EFFLUENT								4. UNITS		5. INTAKE (optional)	
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (if available)		C. LONG TERM AVRG. VALUE (if available)		D. NO. OF ANALYSES	A. CONCEN- TRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	

CONVENTIONAL AND NONCONVENTIONAL POLLUTANTS

A. Bromide (24959-67-9)			0.1	0.0					1	mg/l	lb/day			
B. Chlorine, Total Residual			0.017	0.0			0.017	0.0	12	mg/l	lb/day			
C. Color		X												
D. Fecal Coliform			ND						1	CFU/100 ml				
E. Fluoride (16984-48-9)			0.8	0.3					1	mg/l	lb/day			
F. Nitrate - Nitrate (as N)			0.44	0.2			0.173	0.1	19	mg/l	lb/day			

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)			0.72	0.3					1	mg/l	lb/day			
H. Oil and Grease			ND	ND					1	mg/l	lb/day			
I. Phosphorus (as P), Total (7723-14-0)			0.67	0.3			0.24	0.1	19	mg/l	lb/day			
J. Sulfate (as SO ⁴) (14808-79-8)			220	83.7			185	70.5	19	mg/l	lb/day			
K. Sulfide (as S)			ND	ND					1	mg/l	lb/day			
L. Sulfite (as SO ³) (14265-45-3)			ND	ND					1	mg/l	lb/day			
M. Surfactants			ND	ND					1	mg/l	lb/day			
N. Aluminum, Total (7429-90-5)			0.075	0.0			0.054	0.0	17	mg/l	lb/day			
O. Barium, Total (7440-39-3)			0.514	0.2					1	mg/l	lb/day			
P. Boron, Total (7440-42-8)			0.15	0.1					1	mg/l	lb/day			
Q. Cobalt, Total (7440-48-4)			ND	ND					1	mg/l	lb/day			
R. Iron, Total (7439-89-6)			0.4	0.2			0.152	0.1	19	mg/l	lb/day			
S. Magnesium, Total (7439-95-4)			102.3	38.9					1	mg/l	lb/day			
T. Molybdenum, Total (7439-98-7)			ND	ND					1	mg/l	lb/day			
U. Manganese, Total (7439-96-5)			0.99	0.4			0.291	0.1	19	mg/l	lb/day			
V. Tin, Total (7440-31-5)			ND	ND					1	mg/l	lb/day			
W. Titanium, Total (7440-32-6)			0.018	0.0					1	mg/l	lb/day			

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		
METALS, AND TOTAL PHENOLS															
1M. Antimony, Total (7440-36-9)			ND	ND					1	mg/l	lb/day				
2M. Arsenic, Total (7440-38-2)			0.1	0.0			0.095	0.0	19	mg/l	lb/day				
3M. Beryllium, Total (7440-41-7)			ND	ND					1	mg/l	lb/day				
4M. Cadmium, Total (7440-43-9)			ND	ND					1	mg/l	lb/day				
5M. Chromium III (16065-83-1)			ND	ND					1	mg/l	lb/day				
6M. Chromium VI (18540-29-9)			ND	ND					1	mg/l	lb/day				
7M. Copper, Total (7440-50-9)			ND	ND					1	mg/l	lb/day				
8M. Lead, Total (7439-92-1)			ND	ND					1	mg/l	lb/day				
9M. Mercury, Total (7439-97-6)			ND	ND					1	mg/l	lb/day				
10M. Nickel, Total (7440-02-0)			ND	ND					1	mg/l	lb/day				
11M. Selenium, Total (7782-49-2)			0.002	0.0					1	mg/l	lb/day				
12M. Silver, Total (7440-22-4)			ND	ND					1	mg/l	lb/day				
13M. Thallium, Total (7440-28-0)			ND	ND					1	mg/l	lb/day				
14M. Zinc, Total (7440-66-6)			ND	ND					1	mg/l	lb/day				
15M. Cyanide, Amenable to Chlorination			ND	ND					1	mg/l	lb/day				
16M. Phenols, Total			ND	ND					1	mg/l	lb/day				
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

Golden Triangle Energy, LLC

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

MO 0126161

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) MO-0126161	OUTFALL NUMBER 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. 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. 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)	✓	└	—	ND	ND					1	mg/l	lb/day			
2M. Arsenic, Total (7440-38-2)	✓	└	—	0.39	0.5			0.11	0.1	19	mg/l	lb/day			
3M. Beryllium, Total (7440-41-7)	✓	└	—	ND	ND					1	mg/l	lb/day			
4M. Cadmium, Total (7440-43-9)	✓	└	—	ND	ND					1	mg/l	lb/day			
5M. Chromium III (16065-83-1)	✓	└	—	ND	ND					1	mg/l	lb/day			
6M. Chromium VI (18540-29-9)	✓	└	—	ND	ND					1	mg/l	lb/day			
7M. Copper, Total (7440-50-8)	✓	└	—	ND	ND					1	mg/l	lb/day			
8M. Lead, Total (7439-92-1)	✓	└	—	ND	ND					1	mg/l	lb/day			
9M. Magnesium Total (7439-95-4)	✓	└	—	102.2	139.1					1	mg/l	lb/day			
10M. Mercury, Total (7439-97-6)	✓	└	└	ND	ND					1	mg/l	lb/day			
11M. Molybdenum Total (7439-98-7)	✓	└	└	0.01	0.0					1	mg/l	lb/day			
12M. Nickel, Total (7440-02-0)	✓	└	└	ND	ND					1	mg/l	lb/day			
13M. Selenium, Total (7782-49-2)	✓	└	└	ND	ND					1	mg/l	lb/day			
14M. Silver, Total (7440-22-4)	✓	└	└	ND	ND					1	mg/l	lb/day			
15M. Thallium, Total (7440-28-0)	✓	└	└	ND	ND					1	mg/l	lb/day			
16M. Tin Total (7440-31-5)	✓	└	└	ND	ND					1	mg/l	lb/day			
17M. Titanium Total (7440-32-6)	✓	└	└	ND	ND					1	mg/l	lb/day			
18M. Zinc, Total (7440-66-6)	✓	└	—	ND	ND					1	mg/l	lb/day			

CONTINUED FROM PAGE 3

19M. Cyanide, Amenable to Chlorination	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ND	ND	mg/l	1	lb/day
20M. Phenols, Total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ND	ND	mg/l	1	lb/day

DIOXIN

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

DESCRIBE RESULTS

1. POLLUTANT AND CAS NUMBER (If available)	2. MARK "X"			3. EFFLUENT				4. UNITS		5. INTAKE (optional)					
	A. TEST-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. 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
GC/MS FRACTION – VOLATILE COMPOUNDS															
1V. Acrolein (107-02-8)	✓		⌊	ND	ND							1	ug/l	lb/day	
2V. Acrylonitrile (107-13-1)	✓		⌊	ND	ND							1	ug/l	lb/day	
3V. Benzene (71-43-2)	✓	⌊	⌊	ND	ND							1	ug/l	lb/day	
4V. Bis (Chloromethyl) Ether (642-88-1)	✓	⌊	⌊	ND	ND							1	ug/l	lb/day	
5V. Bromoform (75-25-2)	✓	⌊	⌊	ND	ND							1	ug/l	lb/day	
6V. Carbon Tetrachloride (56-23-6)	✓	⌊	⌊	ND	ND							1	ug/l	lb/day	
7V. Chlorobenzene (108-90-7)	✓	⌊	⌊	ND	ND							1	ug/l	lb/day	
8V. Chlorodibromomethane (724-46-1)	✓	⌊	⌊	ND	ND							1	ug/l	lb/day	
9V. Chloroethane (75-00-3)	✓	⌊	⌊	ND	ND							1	ug/l	lb/day	
10V. 2-Chloroethynyl Ether (110-75-8)	✓	⌊	⌊	ND	ND							1	ug/l	lb/day	
11V. Chloroform (67-66-3)	✓	⌊	⌊	ND	ND							1	ug/l	lb/day	
12V. Dichlorobromomethane (75-27-4)	✓	⌊	⌊	ND	ND							1	ug/l	lb/day	
13V. Dichlorodifluoromethane (75-71-8)	✓	⌊	⌊	ND	ND							1	ug/l	lb/day	
14V. 1,1 – Dichloroethane (75-34-3)	✓	⌊	⌊	ND	ND							1	ug/l	lb/day	
15V. 1,2 – Dichloroethane (107-06-2)	✓	⌊	⌊	ND	ND							1	ug/l	lb/day	
16V. 1,1 – Dichloroethylene (75-35-4)	✓		⌊	ND	ND							1	ug/l	lb/day	
17V. 1,3 – Dichloropropane (78-87-5)	✓	⌊	⌊	ND	ND							1	ug/l	lb/day	
18V. 1,2 –Dichloropropylene (542-75-6)	✓	⌊	⌊	ND	ND							1	ug/l	lb/day	
19V. Ethylbenzene (100-41-4)	✓	⌊	⌊	ND	ND							1	ug/l	lb/day	
20V. Methyl Bromide (74-83-9)	✓	⌊	⌊	ND	ND							1	ug/l	lb/day	
21V. Methyl Chloride (74-87-3)	✓	⌊	⌊	ND	ND							1	ug/l	lb/day	

MO 780-1516 (06-13)

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CONTINUE ON PAGE 4

CONTINUED FROM THE FRONT

NPDES # (IF ASSIGNED) MCO-0126161	OUTFALL NUMBER 002
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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. LONG TERM AVRG.		B. NO OF ANALYSES	
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS		A. LONG TERM AVRG. VALUE (1)	(2) MASS		
GC/MS FRACTION - VOLATILE COMPOUNDS (continued)														
22V. Methylene Chloride (75-09-2)	✓	✓	✓	ND	ND					1	ug/l	lb/day		
23V. 1,1,2,2 - Tetra- chloroethane (78-34-5)	✓	✓	✓	ND	ND					1	ug/l	lb/day		
24V. 1 tetrachloroethylene (127-18-4)	✓	✓	✓	ND	ND					1	ug/l	lb/day		
25V. Toluene (108-88-3)	✓	✓	✓	ND	ND					1	ug/l	lb/day		
26V. 1,2 - Trans Dichloroethylene (156-60-5)	✓	✓	✓	ND	ND					1	ug/l	lb/day		
27V. 1,1,1 - Tri- chloroethane (71-55-6)	✓	✓	✓	ND	ND					1	ug/l	lb/day		
28V. 1,1,2 - Tri- chloroethane (78-00-5)	✓	✓	✓	ND	ND					1	ug/l	lb/day		
29V. Trichloro- ethylene (79-01-6)	✓	✓	✓	ND	ND					1	ug/l	lb/day		
30V. Trichloro - fluoromethane (75-66-4)	✓	✓	✓	ND	ND					1	ug/l	lb/day		
31V. Vinyl Chloride (75-01-4)	✓	✓	✓	ND	ND					1	ug/l	lb/day		

GC/MS FRACTION - ACID COMPOUNDS

1A. 2 - Chlorophenol (95-57-8)	✓	✓	✓	ND	ND					1	ug/l	lb/day				
2A. 2,4 - Dichloro - phenol (120-83-2)	✓	✓	✓	ND	ND					1	ug/l	lb/day				
3A. 2,4 - Dimethyl - phenol (105-67-9)	✓	✓	✓	ND	ND					1	ug/l	lb/day				
4A. 4,6 - Dinitro - O - Cresol (534-32-1)	✓	✓	✓	ND	ND					1	ug/l	lb/day				
5A. 2,4 - Dinitro - phenol (51-28-5)	✓	✓	✓	ND	ND					1	ug/l	lb/day				
6A. 2-Nitrophenol (85-75-5)	✓	✓	✓	ND	ND					1	ug/l	lb/day				
7A. 4-Nitrophenol (100-02-7)	✓	✓	✓	ND	ND					1	ug/l	lb/day				
8A. P - Chloro - M Cresol (95-50-7)	✓	✓	✓	ND	ND					1	ug/l	lb/day				
9A. Pentachloro - phenol (87-86-5)	✓	✓	✓	ND	ND					1	ug/l	lb/day				
10A. Phenol (108-95-2)	✓	✓	✓	ND	ND					1	ug/l	lb/day				
11A. 2,4,6 - Trichloro-phenol (88-06-2)	✓	✓	✓	ND	ND					1	ug/l	lb/day				
12A. 2 - methyl - 4,6 - dinitrophenol (534-32-1)	✓	✓	✓	ND	ND					1	ug/l	lb/day				

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (If available)	2. MARK "X"			3. EFFLUENT								4. UNITS		5. INTAKE (optional)		
1. POLLUTANT AND CAS NUMBER (If available)	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		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)	✓	L	L	ND	ND					1	ug/l	lb/day				
2B. Acenaphthylene (208-96-8)	✓	L	L	ND	ND					1	ug/l	lb/day				
3B. Anthracene (120-12-7)	✓	L	L	ND	ND					1	ug/l	lb/day				
4B. Benzidine (92-87-5)	✓	L	L	ND	ND					1	ug/l	lb/day				
5B. Benzo (a) Anthracene (56-55-3)	✓	L	L	ND	ND					1	ug/l	lb/day				
6B. Benzo (a) Pyrene (50-32-8)	✓	L	L	ND	ND					1	ug/l	lb/day				
7B. 3,4 – Benzofluoranthene (205-99-2)	✓	L	L	ND	ND					1	ug/l	lb/day				
8B. Benzo (ghi) Perylene (191-24-2)	✓	L	L	ND	ND					1	ug/l	lb/day				
9B. Benzo (k) Fluoranthene (207-08-9)	✓	L	L	ND	ND					1	ug/l	lb/day				
10B. Bis (2-Chloroethoxy) Methane (111-91-1)	✓	L	L	ND	ND					1	ug/l	lb/day				
11B. Bis (2-Chloroethyl) Ether (111-44-4)	✓	L	L	ND	ND					1	ug/l	lb/day				
12B. Bis (2-Chloroisopropyl) Ether (39538-32-9)	✓	L	L	ND	ND					1	ug/l	lb/day				
13B. Bis (2-Ethylhexyl) Phthalate (117-81-7)	✓	L	L	ND	ND					1	ug/l	lb/day				
14B. 4-Bromophenyl Phenyl Ether (101-55-3)	✓	L	L	ND	ND					1	ug/l	lb/day				
15B. Butyl Benzyl Phthalate (95-68-7)	✓	L	L	ND	ND					1	ug/l	lb/day				
16B. 2-Chloronaphthalene (91-58-7)	✓	L	L	ND	ND					1	ug/l	lb/day				
17B. 4-Chlorophenyl Phenyl Ether (7005-72-3)	✓	L	L	ND	ND					1	ug/l	lb/day				
18B. Chrysene (218-01-9)	✓	L	L	ND	ND					1	ug/l	lb/day				
19B. Dibenzo (a,h) Anthracene (53-70-3)	✓	L	L	ND	ND					1	ug/l	lb/day				
20B. 1,2 – Dichlorobenzene (95-50-1)	✓	L	L	ND	ND					1	ug/l	lb/day				
21B. 1,3 – Dichlorobenzene (541-73-1)	✓	L	L	ND	ND					1	ug/l	lb/day				

CONTINUED FROM PAGE 5

NPDES # (IF ASSIGNED)
MO-0126161OUTFALL NUMBER
002

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		B. NO OF ANALYSES		
				(1) CONCENTRATION	(2) MASS	(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 (105-45-7)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ND	ND					1	ug/l	lb/day					
23B. 3, 3'-Dichlorobenzidine (91-94-1)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ND	ND					1	ug/l	lb/day					
24B. Diethyl Phthalate (84-66-2)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ND	ND					1	ug/l	lb/day					
25B. Dimethyl Phthalate (131-11-3)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ND	ND					1	ug/l	lb/day					
26B. Di-N-butyl Phthalate (84-74-2)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ND	ND					1	ug/l	lb/day					
27B. 2,4-Dinitrotoluene (121-14-2)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ND	ND					1	ug/l	lb/day					
28B. 2,6-Dinitrotoluene (605-20-2)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ND	ND					1	ug/l	lb/day					
29B. Di-N-Octylphthalate (117-84-0)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ND	ND					1	ug/l	lb/day					
30B. 1,2-Diphenylhydrazine (as Azobenzene) (122-66-7)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ND	ND					1	ug/l	lb/day					
31B. Fluoranthene (206-44-0)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ND	ND					1	ug/l	lb/day					
32B. Fluorene (86-73-7)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ND	ND					1	ug/l	lb/day					
33B. Hexachlorobenzene (87-68-3)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ND	ND					1	ug/l	lb/day					
34B. Hexachlorobutadiene (87-68-3)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ND	ND					1	ug/l	lb/day					
35B. Hexachloro-cyclopentadiene (77-47-4)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ND	ND					1	ug/l	lb/day					
36B. Hexachloroethane (67-72-1)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ND	ND					1	ug/l	lb/day					
37B. Indeno (1,2,3-c-d) Pyrene (193-39-5)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ND	ND					1	ug/l	lb/day					
38B. Isophorone (78-59-1)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ND	ND					1	ug/l	lb/day					
39B. Naphthalene (91-20-3)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ND	ND					1	ug/l	lb/day					
40B. Nitrobenzene (98-95-3)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ND	ND					1	ug/l	lb/day					
41B. N-Nitrosodimethylamine (62-75-9)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ND	ND					1	ug/l	lb/day					

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PAGE 6

CONTINUE ON PAGE 7

CONTINUED FROM THE FRONT

CONTINUED FROM THE FRONT				2. MARK "X"			3. EFFLUENT						4. UNITS		5. INTAKE (optional)		
1. POLLUTANT AND CAS NUMBER (if available)	A. TES-INO 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 (continued)																	
42B. N-Nitroso N-Propylamine (621-64-7)	✓	┐	┐	ND	ND					1	ug/l	lb/day					
43B. N-Nitro- sodiphenylamine (86-30- 6)	✓	┐	┐	ND	ND					1	ug/l	lb/day					
44B. Phenanthrene (85-01-8)	✓	┐	┐	ND	ND					1	ug/l	lb/day					
45B. Pyrene (129-00-0)	✓	┐	┐	ND	ND					1	ug/i	lb/day					
46B. 1,2,4-Tri chlorobenzene (120-82-1)	✓	┐	┐	ND	ND					1	ug/l	lb/day					
GC/MS FRACTION - PESTICIDES																	
1P. Aldrin (309-00-2)	✓	┐	┐	ND	ND					1	ug/l	lb/day					
2P. α-BHC (319-84-6)	✓	┐	┐	ND	ND					1	ug/l	lb/day					
3P. β-BHC (319-84-6)	✓	┐	┐	ND	ND					1	ug/l	lb/day					
4P. γ-BHC (58-89-9)	✓	┐	┐	ND	ND					1	ug/l	lb/day					
5P. δ-BHC (319-86-8)	✓	┐	┐	ND	ND					1	ug/l	lb/day					
6P. Chlordane (57-74-9)	✓	┐	┐	ND	ND					1	ug/l	lb/day					
7P. 4,4'-DDT (50-29-3)	✓	┐	┐	ND	ND					1	ug/l	lb/day					
8P. 4,4'-DDE (72-55-9)	✓	┐	┐	ND	ND					1	ug/l	lb/day					
9P. 4,4'-DDD (72-54-8)	✓	┐	┐	ND	ND					1	ug/l	lb/day					
10P. Dieldrin (60-57-1)	✓	┐	┐	ND	ND					1	ug/l	lb/day					
11P. α-Endosulfan (115-29-7)	✓	┐	┐	ND	ND					1	ug/l	lb/day					
12P. β-Endosulfan (115-29-7)	✓	┐	┐	ND	ND					1	ug/l	lb/day					
13P. Endosulfan Sulfate (1031-07-8)	✓	┐	┐	ND	ND					1	ug/l	lb/day					
14P. Endrin (72-20-8)	✓	┐	┐	ND	ND					1	ug/l	lb/day					
15P. Endrin Aldehyde (7421-93-4)	✓	┐	┐	ND	ND					1	ug/l	lb/day					
16P. Heptachlor (76-44-8)	✓	┐	┐	ND						1	ug/l	lb/day					

NPDES # (IF ASSIGNED)
MO-0126161

[illegible]

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)
Midwest Laboratories	13611 8 Street, Omaha, NE	(402) 334-7770	all results reported in 1.30

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)

Mr. Roger Hill, General Manager

PHONE NUMBER (AREA CODE AND NUMBER)

(660) 683-5646

SIGNATURE

Roger Hill G.m.

DATE SIGNED

2/26/2019

**INSTRUCTIONS FOR FILLING OUT APPLICATION FOR DISCHARGE
PERMIT FORM D – PRIMARY INDUSTRIES**

All blanks must be filled in when the applications is submitted to the appropriate Regional Office (see map). The form **must be signed** as indicated.

This application is to be completed only for wastewater facilities from which there is a discharge. Include any facility that it is possible to discharge from even if normally there is no discharge. If this form is not adequate for you to describe your existing operation, the sufficient information should be attached so that an evaluation of the discharge can be made.

1.00 Name of Facility – By what title or name is this facility known locally?

1.10 and 1.20 Self-explanatory.

1.30 **GENERAL INSTRUCTIONS.** For some pollutants, you may be required to mark "X" in the "Testing Required" column (column 2-A) and test (sample and analyze) and report the levels of the pollutants in your discharge whether or not you expect them to be present in your discharge. For all others, you must mark "X" in either the "Believe Present" column or the "Believe Absent" column (column 2-B or 2-C) based on your best estimate, and test for those which you believe to be present.

Base your determination that a pollutant is present in or absent from your discharge on your knowledge of your raw materials, maintenance chemicals, intermediate and final products and byproducts and any previous analyses known to you of your effluent or of any similar effluent. (For example, if you manufacture pesticides, you should expect those pesticides to be present in contaminated storm water runoff). If you would expect a pollutant to be present solely as a result of its presence in your intake water, you must mark "Believe Present" but you are not required to analyze for that pollutant. Instead, mark an "X" in the "Intake" column.

REPORTING. All levels must be reported as concentration and as total mass. You may report some or all of the required data by attaching separate sheets of paper instead of filling out Table II if the separate sheets contain all the required information in a format which is consistent with Table II in spacing and in identification of pollutants and columns. (For example, the data system used in your GC/MS analysis may be able to print data in the proper format). Use the following abbreviations in the columns headed "Units". (column 4)

CONCENTRATION

ppm.....parts per million
mg/l.....milligrams per liter
ppb.....parts per billion
µg/l.....micrograms per liter

MASS

lbs.....pounds
ton.....tons (English tons)
mg.....milligrams
g.....grams
kg.....kilograms
T.....tonnes (metric tons)

If you measure only one daily value, complete only the "Maximum Daily Values" columns and insert "1" into the "Number of Analyses" columns (columns 3-A and 3-D). Missouri Department of Natural Resources may require you to conduct additional analyses to further characterize your discharges.

For composite samples, the daily value is the total mass or average concentration found in a composite sample taken over the operating hours of the facility during a 24 hour period; for grab samples, the daily value is the arithmetic or flow-weighted total mass or average concentration found in a series of at least four grab samples taken over the operating hours of the facility during a 24 hour period.

If you measure more than one daily value for a pollutant, determine the average of all values within the last year and report the concentration and mass under the "Long Term Average Values" column (column 3-C), and the total number of daily values under the "Number of Analyses" columns (column 3-D). Also, determine the average of all daily values taken during each calendar month, and report the highest average under the "Maximum 30 Day Value" column (column 3-B)

SAMPLING. The collection of the samples for the reported analyses should be supervised by a person experienced in performing sampling of industrial wastewater. You may contact your Missouri Department of Natural Resources' Regional Office for detailed guidance on sampling techniques and for answers to specific questions. Any specific requirements contained in the applicable analytical methods should be followed for sample containers, sample preservation, holding times, the collection of duplicate samples, etc. The time when you sample should be representative of your normal operation, to the extent feasible, with all processes that contribute wastewater in normal operation, and with your treatment system operating properly with no system upsets. Samples should be collected from the center of the flow channel, where turbulence is at a maximum, at a site specified in your present permit or at any site adequate for the collection of a representative sample.

Grab and composite samples are defined as follows:

GRAB SAMPLES. An individual sample of at least 100 milliliters collected at a randomly selected time over a period not exceeding 15 minutes.

COMPOSITE SAMPLE. For the purposes of this application, A combination of at least eight sample aliquots of at least 100 milliliters, collected at periodic intervals during the operating hours of a facility over a 24 hour period. For volatile pollutants, aliquots must be combined in the laboratory immediately before analysis. The composite must be flow proportional; either the time interval between each aliquot or the volume of each aliquot must be proportional to either the stream flow at the time of sampling or the total stream flow since the collection of the previous aliquot. Aliquots may be collected manually or automatically.

ANALYSIS. You must use test methods promulgated in 40 CFR Part 136; however, if none has been promulgated for a particular pollutant, you may use any suitable method for measuring the level of the pollutant in your discharge provided that you submit a description of the method or a reference to a published method. Your description should include the sample holding times, preservation techniques and the quality control measures which you used.

If you have two or more substantially identical outfalls, you may request permission from the Missouri Department of Natural Resources to sample and analyze only one outfall and submit the results of the analysis for other substantially identical outfalls. If your request is granted by the Missouri Department of Natural Resources, on a separate sheet attached to the application form, identify which outfall you did test and describe why the outfalls which you did not test are substantially identical to the outfall which you did test.

REPORTING OF INTAKE DATA. You are not required to report data under the "Intake" columns unless you wish to demonstrate your eligibility for a "net" effluent limitation for one or more pollutants, that is, an effluent limitation adjusted by subtracting the average level of the pollutant(s) present in your intake water. National Pollutant Discharge Elimination System (NPDES) regulations allow net limitations only in certain circumstances. To demonstrate your eligibility, under the "Intake" columns report the average of the results of analyses on your intake water (if your water is treated before use, test the water after it is treated), and attach a separate sheet containing the following for each pollutant:

1. A statement that the intake water is drawn from the body of water into which the discharge is made. (Otherwise, you are not eligible for net limitations.)
2. A statement of the extent to which the level of the pollutant is reduced by treatment of your wastewater. (Your limitations will be adjusted only to the extent that the pollutant is not removed.)
3. When applicable, a demonstration of the extent to which the pollutant in the intake vary physically, chemically or biologically from the pollutants contained in your discharge. For example, when the pollutant represents a class of compounds. Your limitations will be adjusted only to the extent that the intake pollutants do not vary from the discharged pollutants.

SPECIFIC INSTRUCTIONS. Table A lists the 34 "primary" industry categories in the left-hand column. For each outfall, if any of your processes that contribute wastewater falls into one of those categories, you must mark "X" in "Testing Required" column (column 2-A) and test for: A. All of the toxic metals, cyanide and total phenols; and B. The organic toxic pollutants contained in the gas chromatography/mass spectrometry (GS/MS) fractions indicated in Table A as applicable to your category, unless you qualify as a small business (see below). The organic toxic pollutants are listed by GC/MS fractions in Table II in 1.30. For example, the Organic Chemicals Industry has an "X" in all four

fractions; therefore, applicants in this category must test for all organic toxic pollutants in 1.30. If you are applying for a permit for a privately owned treatment works, determine your testing requirements on the basis of the industry categories of your contributors. When you determine which industry category you are in to find your testing requirements, you are not determining your category for any other purpose and you are not giving up your right to challenge your inclusion in that category (for example, for deciding whether an effluent guideline is applicable) before your permit is issued.

TABLE A – TESTING REQUIREMENTS FOR ORGANIC TOXIC POLLUTANTS INDUSTRY CATEGORY

INDUSTRY CATEGORY	VOLATILE	GC/MS FRACTION		PESTICIDE
		ACID	BASE/NEUTRAL	
Adhesives and sealants	X	X	X	-
Aluminum forming	X	X	X	-
Auto and other laundries	X	X	X	X
Battery manufacturing	X	-	X	-
Coal mining	X	X	X	X
Coil coating	X	X	X	-
Copper forming	X	X	X	-
Electric and electronic compounds	X	X	X	X
Electroplating	X	X	X	-
Explosives manufacturing	X	X	X	-
Foundries	X	X	X	-
Gum and wood chemicals	X	X	X	X
Inorganic chemicals manufacturing	X	X	X	-
Iron and steel manufacturing	X	X	X	-
Leather tanning and finishing	X	X	X	X
Mechanical products manufacturing	X	X	X	-
Nonferrous metals manufacturing	X	X	X	X
Ore Mining	X	X	X	X
Organic chemicals manufacturing	X	X	X	X
Paint and ink formulation	X	X	X	X
Pesticides	X	X	X	X
Petroleum refining	X	X	X	X
Pharmaceutical preparations	X	X	X	-
Photographic equipment and supplies	X	X	X	X
Plastic and synthetic materials mfg.	X	X	X	X
Plastic processing	X	-	-	-
Porcelain enameling	X	-	X	X
Printing and publishing	X	X	X	X
Pulp and paperboard mills	X	X	X	X
Rubber processing	X	X	X	-
Soap and detergent manufacturing	X	X	X	-
Stream electric power plants	X	X	X	-
Textile mills	X	X	X	X
Timber products	X	X	X	X

1 The pollutants in each fraction are listed in Item 1.30

X = Testing required

- = Testing not required

For all other cases (nonprocess wastewater outfalls and nonrequired GC/MS fractions), you must mark "X" in either the "Believed Present" column (column 2-B) or the "Believed Absent" column (column 2-C) for each pollutant, and test for those you believe present (those marked "X" in column 2-B). If you qualify as a small business (see below) you are exempt from testing for the organic toxic pollutants, listed in Table II. For pollutants in intake water, see discussion above. The "Long Term Average Values" column (column 5-2) are not compulsory but should be filled out if data is available.

Use composite samples for all pollutants in this part, except use grab samples for total phenols and cyanide.

You are required to mark "Testing Required" for dioxin if you use or manufacture one of the following compounds:

1. 2,4,5-trichlorophenoxy acetic acid (2,4,5-T);
2. 2-(2,4,5-trichlorophenoxy) propanoic acid (Silvex, 2,4,5-TP);
3. 2-(2,4,5-trichlorophenoxy) ethyl 2,2-dichloropropionate (Erbon);
4. O,O-dimethyl O-(2,4,5-trichlorophenyl) phosphorothioate (Ronnel);
5. Hexachlorophene (HCP).

If you mark "Testing Required" or "Believe Present," you must perform a screening analysis for dioxins, using gas chromatography with an electron capture detector. A TCDD standard for quantification is not required. Describe the results of this analysis in the space provided; for example, "no measurable baseline deflection at the retention time of TCDD" or "a measurable peak within the tolerances of the retention time of TCDD." The permitting authority may require you to perform a quantitative analysis if you report a positive result.

The Effluent Guidelines Division of EPA has collected and analyzed samples from some plants for the pollutants listed in Part C in the course of its BAT guidelines development program. If your effluents were sampled and analyzed as part of this program in the last three years, you may use this data to answer provided that the Missouri Department of Natural Resources approves, and provided that no process change or change in raw materials or operating practices has occurred since the samples were taken that would make the analyses unrepresentative of your current discharge.

SMALL BUSINESS EXEMPTION. If you qualify as a "small business" you are exempt from the reporting requirements for the organic toxic pollutants, listed in Table II. If your facility is a coal mine, and if your probable total annual production is less than 100,000 tons per year, you may submit past production data or estimated future production (such as a schedule of estimated total production under 30 CFR Section 795.14(c)) instead of conducting analysis for the organic toxic pollutants. If your facility is not a coal mine, and if your gross total annual sales for the most recent three years average less than \$100,000 per year, in second quarter 1980 dollars, you may submit sales data for those years instead of conducting analyses for the organic toxic pollutants.

The production or sales data must be for the facility that is the source of the discharge. The data should not be limited to production or sales for the process or processes which contribute to the discharge, unless those are the only processes at your facility. For sales data, in situations involving intra-corporate transfers of goods and services, the transfer price per unit should approximate market prices for those goods and services as closely as possible. Sales figures for years after 1980 should be indexed to the second quarter of 1980 by using the gross national product price deflator (second quarter of 1980 = 100). This index is available in "National Income and Product Accounts of the United States" (Department of Commerce, Bureau of Economic Analysis).

- 2.00 A. You may not claim this information as confidential; however, you do not have to distinguish between use or production of the pollutants or list the amounts. Under NPDES regulations your permit will contain limits to control all pollutants you report in answer to this question, as well as all pollutants reported in item 1.30 to 2.00 B at levels exceeding the technology-based limits appropriate to your facility. Your permit will also require you to report to Missouri Department of Natural Resources if you, in the future, begin or expect that you will begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant which you did not report here. Your permit may be modified at that time if necessary to control that pollutant.
- B. For this item, consider only those variations which may result in concentrations of pollutants in effluents which may exceed two times the maximum values you reported in 1.30. These variations may be part of your routine operations or part of your regular cleaning cycles.

Under NPDES regulations your permit will contain limits to control any pollutant you report in answer to this question at levels exceeding the technology-based limits appropriate to your facility. Your permit will also require you to report to the Missouri Department of Natural Resources if you know or have reason to believe that any activity has occurred or will occur which would make your discharge of any toxic pollutant five times the maximum values reported in 1.30 or in this item, and your permit may be modified at that time if necessary to control the pollutant.

Do not consider variations which are the result of bypasses or upsets. Increased levels of pollutants that are discharged as a result of bypasses or upsets are regulated separately under NPDES regulations.

C. Examples of the types of variations to be described here include:

Changes in raw or intermediate materials;
Changes in process equipment or materials;
Changes in product lines;
Significant chemical reactions between pollutants in waste streams; and
Significant variation in removal efficiencies of pollution control equipment.

You may indicate other types of variations as well, except those which are the result of bypasses or upsets. Missouri Department of Natural Resources may require you to further investigate or document variations you report here.

Base your prediction of expected levels of these pollutants upon your knowledge of your processes, raw materials, past and projected product ranges, etc., or upon any testing conducted upon your effluents that indicates the range of variability that can be expected in your effluent over the next five years.

EXAMPLE: Outfall 001 discharges water used to clean six 500 gallon tanks. These tanks are used for formulation of dispersions of synthetic resins in water (adhesives). Use of toxic pollutants that can be expected in the next five years is:

1. Copper acetate inhibitor, ½ lb. per tank;
2. Dibutyl phthalate, 50 lbs. per tank;
3. Toulene, 5 lbs. per tank; and
4. Antimony oxide, 1 lb. per tank.

Based on normal cleaning an average of 1 percent and a maximum of 3 percent of the contents of each tank is collected and discharged once every two weeks in the 150 gallons of water used for cleaning. Treatment (pH adjustment, flocculation, filtration) removes 85 percent of metals and 50 percent of organic compounds.

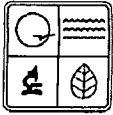
3.00 Self-explanatory.

4.00 The Federal Clean Water Act provides for severe penalties for submitting false information on this application form.

Section 309(c)(2) of the Federal Clean Water Act provides that "Any person who knowingly makes any false statement, representation, or certification in any application..... shall upon conviction, be punished by a fine of no more than \$10,000 or by imprisonment for not more than six months, or both."

STATE REGULATIONS REQUIRE THE CERTIFICATION TO BE SIGNED AS FOLLOWS

1. For a corporation, by an officer of at least the level of plant manager;
2. For a partnership or sole proprietorship, by a general partner or the proprietor; or
3. For a municipality, state, federal, or other public facility, by either a principal executive officer or ranking public official.



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

Golden Triangle Energy, LLC

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

MO 0126161

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) MO-0126161	OUTFALL NUMBER 001

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. 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
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 type="checkbox"/>	<input checked="" type="checkbox"/>											
8M. Lead, Total (7439-92-1)		<input type="checkbox"/>	<input checked="" type="checkbox"/>											
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"/>											

CONTINUED FROM PAGE 3

19M. Cyanide, Amenable to Chlorination	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	ND	0					1	mg/l	lb/day				
20M. Phenols, Total	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	ND	0					1	mg/l	lb/day				
DIOXIN																
2,3,7,8 – Tetra – chlorodibenzo-P-Dioxin (1764-01-6)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	DESCRIBE RESULTS												
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 – VOLATILE COMPOUNDS																
1V. Acrolein (107-02-8)			<input type="checkbox"/>													
2V. Acrylonitrile (107-13-1)	—		<input type="checkbox"/>													
3V. Benzene (71-43-2)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ND	0					1	mg/l	lb/day				
4V. Bis (Chloromethyl) Ether (542-88-1)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>													
5V. Bromoform (75-25-2)	—	<input type="checkbox"/>	<input type="checkbox"/>													
6V. Carbon Tetrachloride (56-23-5)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>													
7V. Chlorobenzene (108-90-7)	—	<input type="checkbox"/>	<input type="checkbox"/>													
8V. Chlorodibromomethane (124-48-1)	—	—	<input type="checkbox"/>													
9V. Chloroethane (75-00-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>													
10V. 2-Chloroethylvinyl Ether (110-75-8)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>													
11V. Chloroform (67-66-3)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>													
12V. Dichlorobromomethane (75-27-4)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>													
13V. Dichlorodifluoromethane (75-71-8)	<input type="checkbox"/>	—	<input type="checkbox"/>													
14V. 1,1 – Dichloroethane (75-34-3)	—	—	<input type="checkbox"/>													
15V. 1,2 – Dichloroethane (107-06-2)	—	—	<input type="checkbox"/>													
16V. 1,1 – Dichloroethylene (75-35-4)	<input type="checkbox"/>		<input type="checkbox"/>													
17V. 1,3 – Dichloropropane (78-87-5)	—	<input type="checkbox"/>	<input type="checkbox"/>													
18V. 1,2 –Dichloropropylene (542-75-6)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>													
19V. Ethylbenzene (100-41-4)	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ND	0					1	mg/l	lb/day				
20V. Methyl Bromide (74-83-9)	—	<input type="checkbox"/>	<input type="checkbox"/>													
21V. Methyl Chloride (74-87-3)	—	—	<input type="checkbox"/>													

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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		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 checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	ND	0					1		mg/l	lb/day			
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		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 (39639-32-9)	<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 (65-68-7)	<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"/>													

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NPDES # (IF ASSIGNED)
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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	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 (608-20-2)	<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. Hexachloro-cyclopentadiene (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. Isophorene (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"/>												

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CONTINUE ON PAGE 7

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 (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"/>													

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MO 780-1516 (06-13)

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? <div style="display: flex; justify-content: space-between;"> <input type="checkbox"/> YES (LIST ALL SUCH POLLUTANTS BELOW) <input checked="" type="checkbox"/> NO (GO TO B) </div>			
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? <div style="display: flex; justify-content: space-between;"> <input type="checkbox"/> YES (COMPLETE C BELOW) <input checked="" type="checkbox"/> NO (GO TO SECTION 3.00) </div>			
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? <div style="display: flex; justify-content: space-between;"> <input checked="" type="checkbox"/> YES (LIST THE NAME, ADDRESS, AND TELEPHONE NUMBER OF, AND ANALYZED BY, EACH SUCH LABORATORY OR FIRM BELOW) <input type="checkbox"/> NO (GO TO SECTION 4.00) </div>			
A. NAME	B. ADDRESS	C. TELEPHONE (area code and number)	D. POLLUTANTS ANALYZED (list)
Midwest Laboratories	13611 8 Street, Omaha, NE	(402) 334-7770	benzene, ethylbenzene, toluene
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)		PHONE NUMBER (AREA CODE AND NUMBER)	
Mr. Roger Hill, General Manager		(660) 683-5646	
SIGNATURE		DATE SIGNED	

INSTRUCTIONS FOR FILLING OUT APPLICATION FOR DISCHARGE PERMIT FORM D – PRIMARY INDUSTRIES

All blanks must be filled in when the applications is submitted to the appropriate Regional Office (see map). The form **must be signed** as indicated.

This application is to be completed only for wastewater facilities from which there is a discharge. Include any facility that it is possible to discharge from even if normally there is no discharge. If this form is not adequate for you to describe your existing operation, the sufficient information should be attached so that an evaluation of the discharge can be made.

1.00 Name of Facility – By what title or name is this facility known locally?

1.10 and 1.20 Self-explanatory.

1.30 **GENERAL INSTRUCTIONS.** For some pollutants, you may be required to mark "X" in the "Testing Required" column (column 2-A) and test (sample and analyze) and report the levels of the pollutants in your discharge whether or not you expect them to be present in your discharge. For all others, you must mark "X" in either the "Believe Present" column or the "Believe Absent" column (column 2-B or 2-C) based on your best estimate, and test for those which you believe to be present.

Base your determination that a pollutant is present in or absent from your discharge on your knowledge of your raw materials, maintenance chemicals, intermediate and final products and byproducts and any previous analyses known to you of your effluent or of any similar effluent. (For example, if you manufacture pesticides, you should expect those pesticides to be present in contaminated storm water runoff). If you would expect a pollutant to be present solely as a result of its presence in your intake water, you must mark "Believe Present" but you are not required to analyze for that pollutant. Instead, mark an "X" in the "Intake" column.

REPORTING. All levels must be reported as concentration and as total mass. You may report some or all of the required data by attaching separate sheets of paper instead of filling out Table II if the separate sheets contain all the required information in a format which is consistent with Table II in spacing and in identification of pollutants and columns. (For example, the data system used in your GC/MS analysis may be able to print data in the proper format). Use the following abbreviations in the columns headed "Units". (column 4)

CONCENTRATION

ppm.....parts per million
mg/l.....milligrams per liter
ppb.....parts per billion
µg/l.....micrograms per liter

MASS

lbs.....pounds
ton.....tons (English tons)
mg.....milligrams
g.....grams
kg.....kilograms
T.....tonnes (metric tons)

If you measure only one daily value, complete only the "Maximum Daily Values" columns and insert "1" into the "Number of Analyses" columns (columns 3-A and 3-D). Missouri Department of Natural Resources may require you to conduct additional analyses to further characterize your discharges.

For composite samples, the daily value is the total mass or average concentration found in a composite sample taken over the operating hours of the facility during a 24 hour period; for grab samples, the daily value is the arithmetic or flow-weighted total mass or average concentration found in a series of at least four grab samples taken over the operating hours of the facility during a 24 hour period.

If you measure more than one daily value for a pollutant, determine the average of all values within the last year and report the concentration and mass under the "Long Term Average Values" column (column 3-C), and the total number of daily values under the "Number of Analyses" columns (column 3-D). Also, determine the average of all daily values taken during each calendar month, and report the highest average under the "Maximum 30 Day Value" column (column 3-B)

SAMPLING. The collection of the samples for the reported analyses should be supervised by a person experienced in performing sampling of industrial wastewater. You may contact your Missouri Department of Natural Resources' Regional Office for detailed guidance on sampling techniques and for answers to specific questions. Any specific requirements contained in the applicable analytical methods should be followed for sample containers, sample preservation, holding times, the collection of duplicate samples, etc. The time when you sample should be representative of your normal operation, to the extent feasible, with all processes that contribute wastewater in normal operation, and with your treatment system operating properly with no system upsets. Samples should be collected from the center of the flow channel, where turbulence is at a maximum, at a site specified in your present permit or at any site adequate for the collection of a representative sample.

Grab and composite samples are defined as follows:

GRAB SAMPLES. An individual sample of at least 100 milliliters collected at a randomly selected time over a period not exceeding 15 minutes.

COMPOSITE SAMPLE. For the purposes of this application, A combination of at least eight sample aliquots of at least 100 milliliters, collected at periodic intervals during the operating hours of a facility over a 24 hour period. For volatile pollutants, aliquots must be combined in the laboratory immediately before analysis. The composite must be flow proportional; either the time interval between each aliquot or the volume of each aliquot must be proportional to either the stream flow at the time of sampling or the total stream flow since the collection of the previous aliquot. Aliquots may be collected manually or automatically.

ANALYSIS. You must use test methods promulgated in 40 CFR Part 136; however, if none has been promulgated for a particular pollutant, you may use any suitable method for measuring the level of the pollutant in your discharge provided that you submit a description of the method or a reference to a published method. Your description should include the sample holding times, preservation techniques and the quality control measures which you used.

If you have two or more substantially identical outfalls, you may request permission from the Missouri Department of Natural Resources to sample and analyze only one outfall and submit the results of the analysis for other substantially identical outfalls. If your request is granted by the Missouri Department of Natural Resources, on a separate sheet attached to the application form, identify which outfall you did test and describe why the outfalls which you did not test are substantially identical to the outfall which you did test.

REPORTING OF INTAKE DATA. You are not required to report data under the "Intake" columns unless you wish to demonstrate your eligibility for a "net" effluent limitation for one or more pollutants, that is, an effluent limitation adjusted by subtracting the average level of the pollutant(s) present in your intake water. National Pollutant Discharge Elimination System (NPDES) regulations allow net limitations only in certain circumstances. To demonstrate your eligibility, under the "Intake" columns report the average of the results of analyses on your intake water (if your water is treated before use, test the water after it is treated), and attach a separate sheet containing the following for each pollutant:

1. A statement that the intake water is drawn from the body of water into which the discharge is made. (Otherwise, you are not eligible for net limitations.)
2. A statement of the extent to which the level of the pollutant is reduced by treatment of your wastewater. (Your limitations will be adjusted only to the extent that the pollutant is not removed.)
3. When applicable, a demonstration of the extent to which the pollutant in the intake vary physically, chemically or biologically from the pollutants contained in your discharge. For example, when the pollutant represents a class of compounds. Your limitations will be adjusted only to the extent that the intake pollutants do not vary from the discharged pollutants.

SPECIFIC INSTRUCTIONS. Table A lists the 34 "primary" industry categories in the left-hand column. For each outfall, if any of your processes that contribute wastewater falls into one of those categories, you must mark "X" in "Testing Required" column (column 2-A) and test for: A. All of the toxic metals, cyanide and total phenols; and B. The organic toxic pollutants contained in the gas chromatography/mass spectrometry (GS/MS) fractions indicated in Table A as applicable to your category, unless you qualify as a small business (see below). The organic toxic pollutants are listed by GC/MS fractions in Table II in 1.30. For example, the Organic Chemicals Industry has an "X" in all four

fractions; therefore, applicants in this category must test for all organic toxic pollutants in 1.30. If you are applying for a permit for a privately owned treatment works, determine your testing requirements on the basis of the industry categories of your contributors. When you determine which industry category you are in to find your testing requirements, you are not determining your category for any other purpose and you are not giving up your right to challenge your inclusion in that category (for example, for deciding whether an effluent guideline is applicable) before your permit is issued.

TABLE A – TESTING REQUIREMENTS FOR ORGANIC TOXIC POLLUTANTS INDUSTRY CATEGORY

INDUSTRY CATEGORY	VOLATILE	GC/MS FRACTION		PESTICIDE
		ACID	BASE/NEUTRAL	
Adhesives and sealants	X	X	X	-
Aluminum forming	X	X	X	-
Auto and other laundries	X	X	X	X
Battery manufacturing	X	-	X	-
Coal mining	X	X	X	X
Coil coating	X	X	X	-
Copper forming	X	X	X	-
Electric and electronic compounds	X	X	X	X
Electroplating	X	X	X	-
Explosives manufacturing	X	X	X	-
Foundries	X	X	X	-
Gum and wood chemicals	X	X	X	X
Inorganic chemicals manufacturing	X	X	X	-
Iron and steel manufacturing	X	X	X	-
Leather tanning and finishing	X	X	X	X
Mechanical products manufacturing	X	X	X	-
Nonferrous metals manufacturing	X	X	X	X
Ore Mining	X	X	X	X
Organic chemicals manufacturing	X	X	X	X
Paint and ink formulation	X	X	X	X
Pesticides	X	X	X	X
Petroleum refining	X	X	X	X
Pharmaceutical preparations	X	X	X	-
Photographic equipment and supplies	X	X	X	X
Plastic and synthetic materials mfg.	X	X	X	X
Plastic processing	X	-	-	-
Porcelain enameling	X	-	X	X
Printing and publishing	X	X	X	X
Pulp and paperboard mills	X	X	X	X
Rubber processing	X	X	X	-
Soap and detergent manufacturing	X	X	X	-
Stream electric power plants	X	X	X	-
Textile mills	X	X	X	X
Timber products	X	X	X	X

1 The pollutants in each fraction are listed in Item 1.30

X = Testing required

- = Testing not required

For all other cases (nonprocess wastewater outfalls and nonrequired GC/MS fractions), you must mark "X" in either the "Believed Present" column (column 2-B) or the "Believed Absent" column (column 2-C) for each pollutant, and test for those you believe present (those marked "X" in column 2-B). If you qualify as a small business (see below) you are exempt from testing for the organic toxic pollutants, listed in Table II. For pollutants in intake water, see discussion above. The "Long Term Average Values" column (column 5-2) are not compulsory but should be filled out if data is available.

Use composite samples for all pollutants in this part, except use grab samples for total phenols and cyanide.

You are required to mark "Testing Required" for dioxin if you use or manufacture one of the following compounds:

1. 2,4,5-trichlorophenoxy acetic acid (2,4,5-T);
2. 2-(2,4,5-trichlorophenoxy) propanoic acid (Silvex, 2,4,5-TP);
3. 2-(2,4,5-trichlorophenoxy) ethyl 2,2-dichloropropionate (Erbon);
4. O,O-dimethyl O-(2,4,5-trichlorophenyl) phosphorothioate (Ronnell);
5. Hexachlorophene (HCP).

If you mark "Testing Required" or "Believe Present," you must perform a screening analysis for dioxins, using gas chromatography with an electron capture detector. A TCDD standard for quantification is not required. Describe the results of this analysis in the space provided; for example, "no measurable baseline deflection at the retention time of TCDD" or "a measurable peak within the tolerances of the retention time of TCDD." The permitting authority may require you to perform a quantitative analysis if you report a positive result.

The Effluent Guidelines Division of EPA has collected and analyzed samples from some plants for the pollutants listed in Part C in the course of its BAT guidelines development program. If your effluents were sampled and analyzed as part of this program in the last three years, you may use this data to answer provided that the Missouri Department of Natural Resources approves, and provided that no process change or change in raw materials or operating practices has occurred since the samples were taken that would make the analyses unrepresentative of your current discharge.

SMALL BUSINESS EXEMPTION. If you qualify as a "small business" you are exempt from the reporting requirements for the organic toxic pollutants, listed in Table II. If your facility is a coal mine, and if your probable total annual production is less than 100,000 tons per year, you may submit past production data or estimated future production (such as a schedule of estimated total production under 30 CFR Section 795.14(c)) instead of conducting analysis for the organic toxic pollutants. If your facility is not a coal mine, and if your gross total annual sales for the most recent three years average less than \$100,000 per year, in second quarter 1980 dollars, you may submit sales data for those years instead of conducting analyses for the organic toxic pollutants.

The production or sales data must be for the facility that is the source of the discharge. The data should not be limited to production or sales for the process or processes which contribute to the discharge, unless those are the only processes at your facility. For sales data, in situations involving intra-corporate transfers of goods and services, the transfer price per unit should approximate market prices for those goods and services as closely as possible. Sales figures for years after 1980 should be indexed to the second quarter of 1980 by using the gross national product price deflator (second quarter of 1980 = 100). This index is available in "National Income and Product Accounts of the United States" (Department of Commerce, Bureau of Economic Analysis).

- 2.00 A. You may not claim this information as confidential; however, you do not have to distinguish between use or production of the pollutants or list the amounts. Under NPDES regulations your permit will contain limits to control all pollutants you report in answer to this question, as well as all pollutants reported in item 1.30 to 2.00 B at levels exceeding the technology-based limits appropriate to your facility. Your permit will also require you to report to Missouri Department of Natural Resources if you, in the future, begin or expect that you will begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant which you did not report here. Your permit may be modified at that time if necessary to control that pollutant.
- B. For this item, consider only those variations which may result in concentrations of pollutants in effluents which may exceed two times the maximum values you reported in 1.30. These variations may be part of your routine operations or part of your regular cleaning cycles.

Under NPDES regulations your permit will contain limits to control any pollutant you report in answer to this question at levels exceeding the technology-based limits appropriate to your facility. Your permit will also require you to report to the Missouri Department of Natural Resources if you know or have reason to believe that any activity has occurred or will occur which would make your discharge of any toxic pollutant five times the maximum values reported in 1.30 or in this item, and your permit may be modified at that time if necessary to control the pollutant.

Do not consider variations which are the result of bypasses or upsets. Increased levels of pollutants that are discharged as a result of bypasses or upsets are regulated separately under NPDES regulations.

C. Examples of the types of variations to be described here include:

Changes in raw or intermediate materials;
Changes in process equipment or materials;
Changes in product lines;
Significant chemical reactions between pollutants in waste streams; and
Significant variation in removal efficiencies of pollution control equipment.

You may indicate other types of variations as well, except those which are the result of bypasses or upsets. Missouri Department of Natural Resources may require you to further investigate or document variations you report here.

Base your prediction of expected levels of these pollutants upon your knowledge of your processes, raw materials, past and projected product ranges, etc., or upon any testing conducted upon your effluents that indicates the range of variability that can be expected in your effluent over the next five years.

EXAMPLE: Outfall 001 discharges water used to clean six 500 gallon tanks. These tanks are used for formulation of dispersions of synthetic resins in water (adhesives). Use of toxic pollutants that can be expected in the next five years is:

1. Copper acetate inhibitor, ½ lb. per tank;
2. Dibutyl phthalate, 50 lbs. per tank;
3. Toulene, 5 lbs. per tank; and
4. Antimony oxide, 1 lb. per tank.

Based on normal cleaning an average of 1 percent and a maximum of 3 percent of the contents of each tank is collected and discharged once every two weeks in the 150 gallons of water used for cleaning. Treatment (pH adjustment, flocculation, filtration) removes 85 percent of metals and 50 percent of organic compounds.

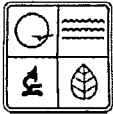
3.00 Self-explanatory.

4.00 The Federal Clean Water Act provides for severe penalties for submitting false information on this application form.

Section 309(c)(2) of the Federal Clean Water Act provides that "Any person who knowingly makes any false statement, representation, or certification in any application..... shall upon conviction, be punished by a fine of no more than \$10,000 or by imprisonment for not more than six months, or both."

STATE REGULATIONS REQUIRE THE CERTIFICATION TO BE SIGNED AS FOLLOWS

1. For a corporation, by an officer of at least the level of plant manager;
2. For a partnership or sole proprietorship, by a general partner or the proprietor; or
3. For a municipality, state, federal, or other public facility, by either a principal executive officer or ranking public official.



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

Golden Triangle Energy, LLC

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

MO 0126161

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) MO-0126161	OUTFALL NUMBER 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. 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	
METALS, AND TOTAL PHENOLS															
1M. Antimony, Total (7440-36-9)	✓	└	—	ND	ND					1	mg/l	lb/day			
2M. Arsenic, Total (7440-38-2)	✓	└	—	0.08	0.0			0.095	0.0	19	mg/l	lb/day			
3M. Beryllium, Total (7440-41-7)	✓	└	—	ND	ND					1	mg/l	lb/day			
4M. Cadmium, Total (7440-43-9)	✓	└	—	ND	ND					1	mg/l	lb/day			
5M. Chromium III (16065-83-1)	✓	└	—	ND	ND					1	mg/l	lb/day			
6M. Chromium VI (18540-29-9)	✓	└	—	ND	ND					1	mg/l	lb/day			
7M. Copper, Total (7440-50-8)	✓	└	—	ND	ND					1	mg/l	lb/day			
8M. Lead, Total (7439-92-1)	✓	└	—	ND	ND					1	mg/l	lb/day			
9M. Magnesium Total (7439-95-4)	✓	└	—	102.3	38.9					1	mg/l	lb/day			
10M. Mercury, Total (7439-97-6)	✓	└	└	ND	ND					1	mg/l	lb/day			
11M. Molybdenum Total (7439-98-7)	✓	└	└	ND	ND					1	mg/l	lb/day			
12M. Nickel, Total (7440-02-0)	✓	└	└	ND	ND					1	mg/l	lb/day			
13M. Selenium, Total (7782-49-2)	✓	└	└	0.002	0.0					1	mg/l	lb/day			
14M. Silver, Total (7440-22-4)	✓	└	└	ND	ND					1	mg/l	lb/day			
15M. Thallium, Total (7440-28-0)	✓	└	└	ND	ND					1	mg/l	lb/day			
16M. Tin Total (7440-31-5)	✓	└	└	ND	ND					1	mg/l	lb/day			
17M. Titanium Total (7440-32-6)	✓	└	└	0.018	0.0					1	mg/l	lb/day			
18M. Zinc, Total (7440-66-6)	✓	└	—	ND	ND					1	mg/l	lb/day			

CONTINUED FROM PAGE 3

19M. Cyanide, Amenable to Chlorination	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ND	ND					1	mg/l	lb/day				
20M. Phenols, Total	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ND	ND					1	mg/l	lb/day				
DIOXIN																
2,3,7,8 – Tetra – chlorodibenzo-P-Dioxin (1764-01-6)	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	DESCRIBE RESULTS												
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 – VOLATILE COMPOUNDS																
1V. Acrolein (107-02-8)	<input checked="" type="checkbox"/>		<input type="checkbox"/>	ND	ND					1	ug/l	lb/day				
2V. Acrylonitrile (107-13-1)	<input checked="" type="checkbox"/>		<input type="checkbox"/>	ND	ND					1	ug/l	lb/day				
3V. Benzene (71-43-2)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ND	ND					1	ug/l	lb/day				
4V. Bis (Chloromethyl) Ether (542-88-1)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ND	ND					1	ug/l	lb/day				
5V. Bromoform (75-25-2)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ND	ND					1	ug/l	lb/day				
6V. Carbon Tetrachloride (58-23-5)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ND	ND					1	ug/l	lb/day				
7V. Chlorobenzene (108-90-7)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ND	ND					1	ug/l	lb/day				
8V. Chlorodibromomethane (124-48-1)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ND	ND					1	ug/l	lb/day				
9V. Chloroethane (75-00-3)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ND	ND					1	ug/l	lb/day				
10V. 2-Chloroethylvinyl Ether (110-75-8)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ND	ND					1	ug/l	lb/day				
11V. Chloroform (67-66-3)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ND	ND					1	ug/l	lb/day				
12V. Dichlorobromomethane (75-27-4)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ND	ND					1	ug/l	lb/day				
13V. Dichlorodifluoromethane (75-71-8)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ND	ND					1	ug/l	lb/day				
14V. 1,1 – Dichloroethane (75-34-3)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ND	ND					1	ug/l	lb/day				
15V. 1,2 – Dichloroethane (107-06-2)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ND	ND					1	ug/l	lb/day				
16V. 1,1 – Dichloroethylene (75-35-4)	<input checked="" type="checkbox"/>		<input type="checkbox"/>	ND	ND					1	ug/l	lb/day				
17V. 1,3 – Dichloropropane (78-87-5)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ND	ND					1	ug/l	lb/day				
18V. 1,2 – Dichloropropylene (542-75-6)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ND	ND					1	ug/l	lb/day				
19V. Ethylbenzene (100-41-4)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ND	ND					1	ug/l	lb/day				
20V. Methyl Bromide (74-83-9)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ND	ND					1	ug/l	lb/day				
21V. Methyl Chloride (74-87-3)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ND	ND					1	ug/l	lb/day				

CONTINUED FROM THE FRONT				NPDES # (IF ASSIGNED) MO-0126161		OUTFALL NUMBER 003									
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	B. NO OF ANALYSES	
				(1)	(2)	(1)	(2)	(1)	(2)						
				CONCENTRATION	MASS	CONCENTRATION	MASS	CONCENTRATION	MASS						
GC/MS FRACTION – VOLATILE COMPOUNDS (continued)															
22V. Methylene Chloride (75-09-2)	✓	┘	┘	ND	ND					1	ug/l	lb/day			
23V. 1,1,2,2 – Tetra-chloroethane (79-34-5)	✓	┘	┘	ND	ND					1	ug/l	lb/day			
24V. Tetrachloroethylene (127-18-4)	✓	┘	┘	ND	ND					1	ug/l	lb/day			
25V. Toluene (108-88-3)	✓	┘	┘	ND	ND					1	ug/l	lb/day			
26V. 1,2 – Trans Dichloroethylene (156-60-5)	✓	┘	┘	ND	ND					1	ug/l	lb/day			
27V. 1,1,1 – Tri – chloroethane (71-55-6)	✓	┘	┘	ND	ND					1	ug/l	lb/day			
28V. 1,1,2 – Tri- chloroethane (79-00-5)	✓	┘	┘	ND	ND					1	ug/l	lb/day			
29V. Trichloro – ethylene (79-01-6)	✓	┘	┘	ND	ND					1	ug/l	lb/day			
30V. Trichloro – fluoromethane (75-69-4)	✓	┘	┘	ND	ND					1	ug/l	lb/day			
31V. Vinyl Chloride (75-01-4)	✓	┘	┘	ND	ND					1	ug/l	lb/day			
GC/MS FRACTION – ACID COMPOUNDS															
1A. 2 – Chlorophenol (95-57-8)	✓	┘	┘	ND	ND					1	ug/l	lb/day			
2A. 2,4 – Dichloro – phenol (120-83-2)	✓	┘	┘	ND	ND					1	ug/l	lb/day			
3A. 2,4 – Dimethyl – phenol (105-67-9)	✓	┘	┘	ND	ND					1	ug/l	lb/day			
4A. 4,6 – Dinitro - O- Cresol (534-52-1)	✓	┘	┘	ND	ND					1	ug/l	lb/day			
5A. 2,4 – Dinitro – phenol (51-28-5)	✓	┘	┘	ND	ND					1	ug/l	lb/day			
6A. 2-Nitrophenol (88-75-5)	✓	┘	┘	ND	ND					1	ug/l	lb/day			
7A. 4-Nitrophenol (100-02-7)	✓	┘	┘	ND	ND					1	ug/l	lb/day			
8A. P – Chloro – M Cresol (59-50-7)	✓	┘	┘	ND	ND					1	ug/l	lb/day			
9A. Pentachloro – phenol (87-86-5)	✓	┘	┘	ND	ND					1	ug/l	lb/day			
10A. Phenol (108-95-2)	✓	┘	┘	ND	ND					1	ug/l	lb/day			
11A. 2,4,6 – Trichloro-phenol (88-06-2)	✓	┘	┘	ND	ND					1	ug/l	lb/day			
12A. 2 - methyl – 4,6 dinitrophenol (534-52-1)	✓	┘	┘	ND	ND					1	ug/l	lb/day			

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	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 checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ND	ND					1	ug/l	lb/day				
2B. Acenaphthylene (208-96-8)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ND	ND					1	ug/l	lb/day				
3B. Anthracene (120-12-7)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ND	ND					1	ug/l	lb/day				
4B. Benzidine (92-87-5)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ND	ND					1	ug/l	lb/day				
5B. Benzo (a) Anthracene (56-55-3)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ND	ND					1	ug/l	lb/day				
6B. Benzo (a) Pyrene (50-32-8)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ND	ND					1	ug/l	lb/day				
7B. 3,4 – Benzofluoranthene (205-99-2)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ND	ND					1	ug/l	lb/day				
8B. Benzo (ghi) Perylene (191-24-2)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ND	ND					1	ug/l	lb/day				
9B. Benzo (k) Fluoranthene (207-08-9)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ND	ND					1	ug/l	lb/day				
10B. Bis (2-Chloroethoxy) Methane (111-91-1)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ND	ND					1	ug/l	lb/day				
11B. Bis (2-Chloroethyl) Ether (111-44-4)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ND	ND					1	ug/l	lb/day				
12B. Bis (2- Chloroisopropyl) Ether (39838-32-9)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ND	ND					1	ug/l	lb/day				
13B. Bis (2-Ethylhexyl) Phthalate (117-81-7)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ND	ND					1	ug/l	lb/day				
14B. 4-Bromophenyl Phenyl Ether (101-55-3)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ND	ND					1	ug/l	lb/day				
15B. Butyl Benzyl Phthalate (85-68-7)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ND	ND					1	ug/l	lb/day				
16B. 2- Chloronaphthalene (91-58-7)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ND	ND					1	ug/l	lb/day				
17B. 4-Chlorophenyl Phenyl Ether (7005-72-3)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ND	ND					1	ug/l	lb/day				
18B. Chrysene (218-01-9)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ND	ND					1	ug/l	lb/day				
19B. Dibenzo (a,h) Anthracene (53-70-3)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ND	ND					1	ug/l	lb/day				
20B. 1,2 – Dichlorobenzene (95-50-1)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ND	ND					1	ug/l	lb/day				
21B. 1,3 – Dichlorobenzene (541-73-1)	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	ND	ND					1	ug/l	lb/day				

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NPDES # (IF ASSIGNED)
MO-0126161OUTFALL NUMBER
003

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						
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(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)	✓	☐	☐	ND	ND						1	ug/l	lb/day			
23B. 3, 3'-Dichlorobenzidine (91-94-1)	✓	☐	☐	ND	ND						1	ug/l	lb/day			
24B. Diethyl Phthalate (84-66-2)	✓	☐	☐	ND	ND						1	ug/l	lb/day			
25B. Dimethyl Phthalate (131-11-3)	✓	☐	☐	ND	ND						1	ug/l	lb/day			
26B. Di-N-butyl Phthalate (84-74-2)	✓	☐	☐	ND	ND						1	ug/l	lb/day			
27B. 2,4-Dinitrotoluene (121-14-2)	✓	☐	☐	ND	ND						1	ug/l	lb/day			
28B. 2,6-Dinitrotoluene (506-20-2)	✓	☐	☐	ND	ND						1	ug/l	lb/day			
29B. Di-N-Octylphthalate (117-84-0)	✓	☐	☐	ND	ND						1	ug/l	lb/day			
30B. 1,2-Diphenylhydrazine (as Azobenzene) (122-66-7)	✓	☐	☐	ND	ND						1	ug/l	lb/day			
31B. Fluoranthene (206-44-0)	✓	☐	☐	ND	ND						1	ug/l	lb/day			
32B. Fluorene (86-73-7)	✓	☐	☐	ND	ND						1	ug/l	lb/day			
33B. Hexachlorobenzene (87-68-3)	✓	☐	☐	ND	ND						1	ug/l	lb/day			
34B. Hexachlorobutadiene (87-68-3)	✓	☐	☐	ND	ND						1	ug/l	lb/day			
35B. Hexachloro-cyclopentadiene (77-47-4)	✓	☐	☐	ND	ND						1	ug/l	lb/day			
36B. Hexachloroethane (67-72-1)	✓	☐	☐	ND	ND						1	ug/l	lb/day			
37B. Indeno (1,2,3-c-d) Pyrene (193-39-5)	✓	☐	☐	ND	ND						1	ug/l	lb/day			
38B. Isophorone (78-59-1)	✓	☐	☐	ND	ND						1	ug/l	lb/day			
39B. Naphthalene (91-20-3)	✓	☐	☐	ND	ND						1	ug/l	lb/day			
40B. Nitrobenzene (98-95-3)	✓	☐	☐	ND	ND						1	ug/l	lb/day			
41B. N-Nitro-sodimethylamine (62-75-9)	✓	☐	☐	ND	ND						1	ug/l	lb/day			

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1. POLLUTANT AND CAS NUMBER (If available)	2. MARK "X"			3. EFFLUENT								4. UNITS		5. INTAKE (optional)		
	A. YES-NG 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						
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS							
				A. CONCEN- TRATION	B. MASS	A. LONG TERM AVRG. VALUE	B. NO OF ANALYSES									
		(1) CONCENTRATION	(2) MASS													
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS (continued)																
42B. N-Nitroso N-Propylamine (621-64-7)	✓	┐	┐	ND	ND					1	ug/l	lb/day				
43B. N-Nitro- sodiphenylamine (86-30- 6)	✓	┐	┐	ND	ND					1	ug/l	lb/day				
44B. Phenanthrene (85-01-8)	✓	┐	┐	ND	ND					1	ug/l	lb/day				
45B. Pyrene (129-00-0)	✓	┐	┐	ND	ND					1	ug/l	lb/day				
46B. 1,2,4-Tri chlorobenzene (120-82-1)	✓	┐	┐	ND	ND					1	ug/l	lb/day				
GC/MS FRACTION - PESTICIDES																
1P. Aldrin (309-00-2)	✓	┐	┐	ND	ND					1	u/gl	lb/day				
2P. α-BHC (319-84-6)	✓	┐	┐	ND	ND					1	ug/l	lb/day				
3P. β-BHC (319-84-6)	✓	┐	┐	ND	ND					1	ug/l	lb/day				
4P. γ-BHC (58-89-9)	✓	┐	┐	ND	ND					1	ug/l	lb/day				
5P. δ-BHC (319-86-8)	✓	┐	┐	ND	ND					1	ug/l	lb/day				
6P. Chlordane (57-74-9)	✓	┐	┐	ND	ND					1	ug/l	lb/day				
7P. 4,4'-DDT (50-29-3)	✓	┐	┐	ND	ND					1	ug/l	lb/day				
8P. 4,4'-DDE (72-55-9)	✓	┐	┐	ND	ND					1	ug/l	lb/day				
9P. 4,4'-DDD (72-54-8)	✓	┐	┐	ND	ND					1	ug/l	lb/day				
10P. Dieldrin (60-57-1)	✓	┐	┐	ND	ND					1	ug/l	lb/day				
11P. α-Endosulfan (115-29-7)	✓	┐	┐	ND	ND					1	ug/l	lb/day				
12P. β-Endosulfan (115-29-7)	✓	┐	┐	ND	ND					1	ug/i	lb/day				
13P. Endosulfan Sulfate (1031-07-8)	✓	┐	┐	ND	ND					1	ug/l	lb/day				
14P. Endrin (72-20-8)	✓	┐	┐	ND	ND					1	ug/l	lb/day				
15P. Endrin Aldehyde (7421-93-4)	✓	┐	┐	ND	ND					1	ug/l	lb/day				
16P. Heptachlor (76-44-8)	✓	┐	┐	ND	ND					1	ug/l	lb/day				

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NPDES # (IF ASSIGNED) MO-0126161	OUTFALL NUMBER 003
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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	B. NO OF ANALYSES		
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS							
GC/MS FRACTION – PESTICIDES (continued)																
17P. Heptachlor Epoxide (1024-57-3)	✓			ND	ND					1	ug/l	lb/day				
18P. PCB-1242 (53469-21-9)	✓			ND	ND					1	ug/l	lb/day				
19P. PCB-1254 (11097-69-1)	✓			ND	ND					1	ug/l	lb/day				
20P. PCB-1221 (11104-28-2)	✓			ND	ND					1	ug/l	lb/day				
21P. PCB-1232 (11141-16-5)	✓			ND	ND					1	ug/l	lb/day				
22P. PCB-1248 (12672-29-6)	✓			ND	ND					1	ug/l	lb/day				
23P. PCB-1260 (11096-82-5)	✓			ND	ND					1	ug/l	lb/day				
24P. PCB-1016 (12674-11-2)	✓			ND	ND					1	ug/l	lb/day				
25P. Toxaphene (8001-35-2)	✓			ND	ND					1	ug/l	lb/day				
J. RADIOACTIVITY																
(1) Alpha Total			✓													
(2) Beta Total			✓													
(3) Radium Total			✓													
(4) Radium 226 Total			✓													

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)
Midwest Laboratories	13611 8 Street, Omaha, NE	(402) 334-7770	all results reported in 1.30

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)

Mr. Roger Hill, General Manager

PHONE NUMBER (AREA CODE AND NUMBER)

(660) 683-5646

SIGNATURE

Roger Hill

G.M.

DATE SIGNED

2/26/2019

**INSTRUCTIONS FOR FILLING OUT APPLICATION FOR DISCHARGE
PERMIT FORM D – PRIMARY INDUSTRIES**

All blanks must be filled in when the applications is submitted to the appropriate Regional Office (see map). The form **must be signed** as indicated.

This application is to be completed only for wastewater facilities from which there is a discharge. Include any facility that it is possible to discharge from even if normally there is no discharge. If this form is not adequate for you to describe your existing operation, the sufficient information should be attached so that an evaluation of the discharge can be made.

1.00 Name of Facility – By what title or name is this facility known locally?

1.10 and 1.20 Self-explanatory.

1.30 GENERAL INSTRUCTIONS. For some pollutants, you may be required to mark "X" in the "Testing Required" column (column 2-A) and test (sample and analyze) and report the levels of the pollutants in your discharge whether or not you expect them to be present in your discharge. For all others, you must mark "X" in either the "Believe Present" column or the "Believe Absent" column (column 2-B or 2-C) based on your best estimate, and test for those which you believe to be present.

Base your determination that a pollutant is present in or absent from your discharge on your knowledge of your raw materials, maintenance chemicals, intermediate and final products and byproducts and any previous analyses known to you of your effluent or of any similar effluent. (For example, if you manufacture pesticides, you should expect those pesticides to be present in contaminated storm water runoff). If you would expect a pollutant to be present solely as a result of its presence in your intake water, you must mark "Believe Present" but you are not required to analyze for that pollutant. Instead, mark an "X" in the "Intake" column.

REPORTING. All levels must be reported as concentration and as total mass. You may report some or all of the required data by attaching separate sheets of paper instead of filling out Table II if the separate sheets contain all the required information in a format which is consistent with Table II in spacing and in identification of pollutants and columns. (For example, the data system used in your GC/MS analysis may be able to print data in the proper format). Use the following abbreviations in the columns headed "Units". (column 4)

CONCENTRATION

ppm.....parts per million
mg/l.....milligrams per liter
ppb.....parts per billion
µg/l.....micrograms per liter

MASS

lbs.....pounds
ton.....tons (English tons)
mg.....milligrams
g.....grams
kg.....kilograms
T.....tonnes (metric tons)

If you measure only one daily value, complete only the "Maximum Daily Values" columns and insert "1" into the "Number of Analyses" columns (columns 3-A and 3-D). Missouri Department of Natural Resources may require you to conduct additional analyses to further characterize your discharges.

For composite samples, the daily value is the total mass or average concentration found in a composite sample taken over the operating hours of the facility during a 24 hour period; for grab samples, the daily value is the arithmetic or flow-weighted total mass or average concentration found in a series of at least four grab samples taken over the operating hours of the facility during a 24 hour period.

If you measure more than one daily value for a pollutant, determine the average of all values within the last year and report the concentration and mass under the "Long Term Average Values" column (column 3-C), and the total number of daily values under the "Number of Analyses" columns (column 3-D). Also, determine the average of all daily values taken during each calendar month, and report the highest average under the "Maximum 30 Day Value" column (column 3-B)

SAMPLING. The collection of the samples for the reported analyses should be supervised by a person experienced in performing sampling of industrial wastewater. You may contact your Missouri Department of Natural Resources' Regional Office for detailed guidance on sampling techniques and for answers to specific questions. Any specific requirements contained in the applicable analytical methods should be followed for sample containers, sample preservation, holding times, the collection of duplicate samples, etc. The time when you sample should be representative of your normal operation, to the extent feasible, with all processes that contribute wastewater in normal operation, and with your treatment system operating properly with no system upsets. Samples should be collected from the center of the flow channel, where turbulence is at a maximum, at a site specified in your present permit or at any site adequate for the collection of a representative sample.

Grab and composite samples are defined as follows:

GRAB SAMPLES. An individual sample of at least 100 milliliters collected at a randomly selected time over a period not exceeding 15 minutes.

COMPOSITE SAMPLE. For the purposes of this application, A combination of at least eight sample aliquots of at least 100 milliliters, collected at periodic intervals during the operating hours of a facility over a 24 hour period. For volatile pollutants, aliquots must be combined in the laboratory immediately before analysis. The composite must be flow proportional; either the time interval between each aliquot or the volume of each aliquot must be proportional to either the stream flow at the time of sampling or the total stream flow since the collection of the previous aliquot. Aliquots may be collected manually or automatically.

ANALYSIS. You must use test methods promulgated in 40 CFR Part 136; however, if none has been promulgated for a particular pollutant, you may use any suitable method for measuring the level of the pollutant in your discharge provided that you submit a description of the method or a reference to a published method. Your description should include the sample holding times, preservation techniques and the quality control measures which you used.

If you have two or more substantially identical outfalls, you may request permission from the Missouri Department of Natural Resources to sample and analyze only one outfall and submit the results of the analysis for other substantially identical outfalls. If your request is granted by the Missouri Department of Natural Resources, on a separate sheet attached to the application form, identify which outfall you did test and describe why the outfalls which you did not test are substantially identical to the outfall which you did test.

REPORTING OF INTAKE DATA. You are not required to report data under the "Intake" columns unless you wish to demonstrate your eligibility for a "net" effluent limitation for one or more pollutants, that is, an effluent limitation adjusted by subtracting the average level of the pollutant(s) present in your intake water. National Pollutant Discharge Elimination System (NPDES) regulations allow net limitations only in certain circumstances. To demonstrate your eligibility, under the "Intake" columns report the average of the results of analyses on your intake water (if your water is treated before use, test the water after it is treated), and attach a separate sheet containing the following for each pollutant:

1. A statement that the intake water is drawn from the body of water into which the discharge is made. (Otherwise, you are not eligible for net limitations.)
2. A statement of the extent to which the level of the pollutant is reduced by treatment of your wastewater. (Your limitations will be adjusted only to the extent that the pollutant is not removed.)
3. When applicable, a demonstration of the extent to which the pollutant in the intake vary physically, chemically or biologically from the pollutants contained in your discharge. For example, when the pollutant represents a class of compounds. Your limitations will be adjusted only to the extent that the intake pollutants do not vary from the discharged pollutants.

SPECIFIC INSTRUCTIONS. Table A lists the 34 "primary" industry categories in the left-hand column. For each outfall, if any of your processes that contribute wastewater falls into one of those categories, you must mark "X" in "Testing Required" column (column 2-A) and test for: A. All of the toxic metals, cyanide and total phenols; and B. The organic toxic pollutants contained in the gas chromatography/mass spectrometry (GS/MS) fractions indicated in Table A as applicable to your category, unless you qualify as a small business (see below). The organic toxic pollutants are listed by GC/MS fractions in Table II in 1.30. For example, the Organic Chemicals Industry has an "X" in all four

fractions; therefore, applicants in this category must test for all organic toxic pollutants in 1.30. If you are applying for a permit for a privately owned treatment works, determine your testing requirements on the basis of the industry categories of your contributors. When you determine which industry category you are in to find your testing requirements, you are not determining your category for any other purpose and you are not giving up your right to challenge your inclusion in that category (for example, for deciding whether an effluent guideline is applicable) before your permit is issued.

TABLE A – TESTING REQUIREMENTS FOR ORGANIC TOXIC POLLUTANTS INDUSTRY CATEGORY

INDUSTRY CATEGORY	VOLATILE	GC/MS FRACTION		PESTICIDE
		ACID	BASE/NEUTRAL	
Adhesives and sealants	X	X	X	-
Aluminum forming	X	X	X	-
Auto and other laundries	X	X	X	X
Battery manufacturing	X	-	X	-
Coal mining	X	X	X	X
Coil coating	X	X	X	-
Copper forming	X	X	X	-
Electric and electronic compounds	X	X	X	X
Electroplating	X	X	X	-
Explosives manufacturing	X	X	X	-
Foundries	X	X	X	-
Gum and wood chemicals	X	X	X	X
Inorganic chemicals manufacturing	X	X	X	-
Iron and steel manufacturing	X	X	X	-
Leather tanning and finishing	X	X	X	X
Mechanical products manufacturing	X	X	X	-
Nonferrous metals manufacturing	X	X	X	X
Ore Mining	X	X	X	X
Organic chemicals manufacturing	X	X	X	X
Paint and ink formulation	X	X	X	X
Pesticides	X	X	X	X
Petroleum refining	X	X	X	X
Pharmaceutical preparations	X	X	X	-
Photographic equipment and supplies	X	X	X	X
Plastic and synthetic materials mfg.	X	X	X	X
Plastic processing	X	-	-	-
Porcelain enameling	X	-	X	X
Printing and publishing	X	X	X	X
Pulp and paperboard mills	X	X	X	X
Rubber processing	X	X	X	-
Soap and detergent manufacturing	X	X	X	-
Stream electric power plants	X	X	X	-
Textile mills	X	X	X	X
Timber products	X	X	X	X

1 The pollutants in each fraction are listed in Item 1.30

X = Testing required

- = Testing not required

For all other cases (nonprocess wastewater outfalls and nonrequired GC/MS fractions), you must mark "X" in either the "Believed Present" column (column 2-B) or the "Believed Absent" column (column 2-C) for each pollutant, and test for those you believe present (those marked "X" in column 2-B). If you qualify as a small business (see below) you are exempt from testing for the organic toxic pollutants, listed in Table II. For pollutants in intake water, see discussion above. The "Long Term Average Values" column (column 5-2) are not compulsory but should be filled out if data is available.

Use composite samples for all pollutants in this part, except use grab samples for total phenols and cyanide.

You are required to mark "Testing Required" for dioxin if you use or manufacture one of the following compounds:

1. 2,4,5-trichlorophenoxy acetic acid (2,4,5-T);
2. 2-(2,4,5-trichlorophenoxy) propanoic acid (Silvex, 2,4,5-TP);
3. 2-(2,4,5-trichlorophenoxy) ethyl 2,2-dichloropropionate (Erbon);
4. O,O-dimethyl O-(2,4,5-trichlorophenyl) phosphorothioate (Ronnel);
5. Hexachlorophene (HCP).

If you mark "Testing Required" or "Believe Present," you must perform a screening analysis for dioxins, using gas chromatography with an electron capture detector. A TCDD standard for quantification is not required. Describe the results of this analysis in the space provided; for example, "no measurable baseline deflection at the retention time of TCDD" or "a measurable peak within the tolerances of the retention time of TCDD." The permitting authority may require you to perform a quantitative analysis if you report a positive result.

The Effluent Guidelines Division of EPA has collected and analyzed samples from some plants for the pollutants listed in Part C in the course of its BAT guidelines development program. If your effluents were sampled and analyzed as part of this program in the last three years, you may use this data to answer provided that the Missouri Department of Natural Resources approves, and provided that no process change or change in raw materials or operating practices has occurred since the samples were taken that would make the analyses unrepresentative of your current discharge.

SMALL BUSINESS EXEMPTION. If you qualify as a "small business" you are exempt from the reporting requirements for the organic toxic pollutants, listed in Table II. If your facility is a coal mine, and if your probable total annual production is less than 100,000 tons per year, you may submit past production data or estimated future production (such as a schedule of estimated total production under 30 CFR Section 795.14(c)) instead of conducting analysis for the organic toxic pollutants. If your facility is not a coal mine, and if your gross total annual sales for the most recent three years average less than \$100,000 per year, in second quarter 1980 dollars, you may submit sales data for those years instead of conducting analyses for the organic toxic pollutants.

The production or sales data must be for the facility that is the source of the discharge. The data should not be limited to production or sales for the process or processes which contribute to the discharge, unless those are the only processes at your facility. For sales data, in situations involving intra-corporate transfers of goods and services, the transfer price per unit should approximate market prices for those goods and services as closely as possible. Sales figures for years after 1980 should be indexed to the second quarter of 1980 by using the gross national product price deflator (second quarter of 1980 = 100). This index is available in "National Income and Product Accounts of the United States" (Department of Commerce, Bureau of Economic Analysis).

- 2.00 A. You may not claim this information as confidential; however, you do not have to distinguish between use or production of the pollutants or list the amounts. Under NPDES regulations your permit will contain limits to control all pollutants you report in answer to this question, as well as all pollutants reported in item 1.30 to 2.00 B at levels exceeding the technology-based limits appropriate to your facility. Your permit will also require you to report to Missouri Department of Natural Resources if you, in the future, begin or expect that you will begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant which you did not report here. Your permit may be modified at that time if necessary to control that pollutant.
- B. For this item, consider only those variations which may result in concentrations of pollutants in effluents which may exceed two times the maximum values you reported in 1.30. These variations may be part of your routine operations or part of your regular cleaning cycles.

Under NPDES regulations your permit will contain limits to control any pollutant you report in answer to this question at levels exceeding the technology-based limits appropriate to your facility. Your permit will also require you to report to the Missouri Department of Natural Resources if you know or have reason to believe that any activity has occurred or will occur which would make your discharge of any toxic pollutant five times the maximum values reported in 1.30 or in this item, and your permit may be modified at that time if necessary to control the pollutant.

Do not consider variations which are the result of bypasses or upsets. Increased levels of pollutants that are discharged as a result of bypasses or upsets are regulated separately under NPDES regulations.

C. Examples of the types of variations to be described here include:

Changes in raw or intermediate materials;
Changes in process equipment or materials;
Changes in product lines;
Significant chemical reactions between pollutants in waste streams; and
Significant variation in removal efficiencies of pollution control equipment.

You may indicate other types of variations as well, except those which are the result of bypasses or upsets. Missouri Department of Natural Resources may require you to further investigate or document variations you report here.

Base your prediction of expected levels of these pollutants upon your knowledge of your processes, raw materials, past and projected product ranges, etc., or upon any testing conducted upon your effluents that indicates the range of variability that can be expected in your effluent over the next five years.

EXAMPLE: Outfall 001 discharges water used to clean six 500 gallon tanks. These tanks are used for formulation of dispersions of synthetic resins in water (adhesives). Use of toxic pollutants that can be expected in the next five years is:

1. Copper acetate inhibitor, 1/2 lb. per tank;
2. Dibutyl phthalate, 50 lbs. per tank;
3. Toulene, 5 lbs. per tank; and
4. Antimony oxide, 1 lb. per tank.

Based on normal cleaning an average of 1 percent and a maximum of 3 percent of the contents of each tank is collected and discharged once every two weeks in the 150 gallons of water used for cleaning. Treatment (pH adjustment, flocculation, filtration) removes 85 percent of metals and 50 percent of organic compounds.

3.00 Self-explanatory.

4.00 The Federal Clean Water Act provides for severe penalties for submitting false information on this application form.

Section 309(c)(2) of the Federal Clean Water Act provides that "Any person who knowingly makes any false statement, representation, or certification in any application..... shall upon conviction, be punished by a fine of no more than \$10,000 or by imprisonment for not more than six months, or both."

STATE REGULATIONS REQUIRE THE CERTIFICATION TO BE SIGNED AS FOLLOWS

1. For a corporation, by an officer of at least the level of plant manager;
2. For a partnership or sole proprietorship, by a general partner or the proprietor; or
3. For a municipality, state, federal, or other public facility, by either a principal executive officer or ranking public official.

6.30 Other Limiting Pollutants for Land Application Rates. Specify any other pollutants that are most limiting for determining land application rates. Include any additional significant pollutants from Section 4 that is not already listed in Section 6.00. Attach extra sheets as necessary.

Pollutant	Concentration (mg/kg dry weight)			Design LBS/ Acre/Year	Type of Samples	Number Samples	Sample Location	Sample Period
	Minimum	Maximum	Average					
potassium	187	2,087	859			5	sludge bot	2019-Byr
sulfur	749	6830	2,621			5	"	"
iron	14,870	277,600	139,677			5	"	"
						5	"	"
barium	321	5300	2,812			5	"	"
solids %	1.5	17.7	6.3			5	"	"
phosphate P2O5	3,493	77,249	39,875			5	"	"
potash K2O	225	2,513	1,034			5	"	"
magnesium	1,590	12,174	6,235			5	"	"

6.40 Requirements for Public Use Sites. Complete this if land application onto public use or public access sites or if material will be distributed for general public use. Fecal Coliform, Salmonella and Enteric Virus must be tested if the biosolids include waste material from humans, animals, vegetables or organic matter.

Pollutant	Concentration (mg/kg dry weight)			Type of Samples	Number Samples	Sample Location	Sample Period
	Minimum	Maximum	Average				
Total Dioxin TEQ*							
*Required Only for public access sites. TEQ = Toxicity Equivalents for CDD and CDF isomers per EPA Publication EPA/625/3-89/016 and EPA method 1613. Detection limits must be less than 1.0 ppt.							
Fecal Coliform							
Salmonella							
Enteric Virus							
Other (specify)							

7.00 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

Nayes associates, LLC / Terrence Nayes, PE

SIGNATURE

Terrence L. Nayes

(TYPE OR PRINT)

TERRENCE LEE NAYES

NUMBER

2003014820

(TYPE OR PRINT)

PROFESSIONAL ENGINEER

TELEPHONE NUMBER (area code and number)

(982) 239-5377

DATE SIGNED

2-18-2019

OWNER OR AUTHORIZED REPRESENTATIVE - Name and Official Title

Roger Hill, General Manager

SIGNATURE

Roger Hill G.M.

(TYPE OR PRINT)

PROFESSIONAL ENGINEER

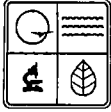
TELEPHONE NUMBER (area code and number)

6606835646

DATE SIGNED

2/26/2019

expired 12-31-19



MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM, WATER POLLUTION BRANCH
(SEE MAP FOR APPROPRIATE REGIONAL OFFICE)
**FORM R – PERMIT APPLICATION FOR LAND APPLICATION
OF INDUSTRIAL WASTEWATER BIOSOLIDS AND RESIDUALS**

FOR AGENCY USE ONLY

PERMIT NUMBER

MO -

DATE RECEIVED

INSTRUCTIONS: FORMS A & C or F (CAFOs) (and D where applicable) must also be submitted for land application of industrial wastewater sludge biosolids or residuals. Submit FORMS E and G for land disturbance permit if construction areas total five acres or more.

Attach FORM I, if wastewater will be land applied or irrigated. (Liquid fertilizer residuals are land applied under Dept. of Ag permit).

1.00 FACILITY INFORMATION

1.10 Facility Name

Golden Triangle Energy, LLC

1.20 Application for: ☐ Construction Permit (attach Engineering report, Plans and Specifications per 10 CSR 20-8.020)

☐ Operating Permit (if no construction permit, attach engineering documents)

Date Land Application System Began Operation: _____

☒ Operating Permit Renewal

1.30 Months when the business or enterprise will operate or generate sludge or residuals:

☒ 12 months per year ☐ Part of year (list Months): _____

1.40 List the Facility outfalls which will be applicable to the land application system from outfalls listed on Form A, C, D and F.

Outfall Nos. _____ #004, #005

2.00 STORAGE BASINS

2.10 Number of storage basins: 2 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 65 Width 30 Depth 8 Freeboard 2 Berm Width 10 % Slope 3:1

Basin #2: Length 65 Width 30 Depth 8 Freeboard 2 Berm Width 10 % Slope 3:1

2.21 Storage basin volumes (gallons): Permanent volume means two foot water depth for seal protection, and any required treatment volume capacity.

Basin #1: Gallons: 263,333 Permanent Volume + 34,417 Storage = 299,080 Total volume (gallons)

Basin #2: Gallons: 263,333 Permanent Volume + 34,417 Storage = 299,080 Total volume (gallons)

2.30 Storage Basin operating levels (report as feet below emergency overflow level)

Basin #1: Maximum water level 8 ft. Minimum operating water level 3 ft.

Basin #2: Maximum water level 8 ft. Minimum operating water level 3 ft.

2.40 Storage Basin design storage capacity: (storage between minimum and maximum operating levels for 1-in-10 year storm water flows.)

Basin #1: 5 days Basin #2: 5 days Basin #3: na days

2.50 Attach Water Balance Test results to verify earthen basin seal in accordance with 10 CSR 20-8.020(13) and (16), when required by the department. NA

2.60 Attach a sludge management plan for materials that are not land applied. NA

2.70 Attach a closure plan for lagoons, storage basins and treatment units. NA, ongoing

3.00 LAND APPLICATION SYSTEM

3.10 Number of application sites 2 Total Available Acres 50 Minimum & Maximum % field slopes 0.08

Location: 1/4 NE 1/4 NW 1/4 13 Sec. 62N T 40WR Holt County 20 Acres

Location: 1/4 SE 1/4 NW 1/4 13 Sec. 62N T 40WR Holt County 30 Acres

Attach extra sheets as necessary.

3.12 Type of vegetation: ☐ Grass hay ☐ Pasture ☐ Timber ☒ Row crops ☐ Other (describe) _____

Specific Crops and Yields/acre: Goal: 150 Actual for last five years: 113

6.30 Other Limiting Pollutants for Land Application Rates. Specify any other pollutants that are most limiting for determining land application rates. Include any additional significant pollutants from Section 4 that is not already listed in Section 6.00. Attach extra sheets as necessary.

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Fecal Coliform							
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Other (specify)							

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Nayes associates, LLC / Terrence Nayes, PE

SIGNATURE

Terrence L. Nayes

(TYPE OR PRINT)

TERRENCE LEE
NAYES

TELEPHONE NUMBER (area code and number)

(982) 239-5377

DATE SIGNED

2-18-2019

OWNER OR AUTHORIZED REPRESENTATIVE - Name and Official Title

Roger Hill, General Manager

SIGNATURE

(TYPE OR PRINT)

NUMBER
2003014820

TELEPHONE NUMBER (area code and number)

606835646

DATE SIGNED

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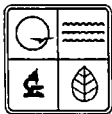
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CONSULTING ENGINEER - Name, Official Title and Engineering Firm Nayes associates, LLC / Terrence Nayes, PE		(TYPE OR PRINT) TERRENCE LEE NAYES NUMBER 2003014820	TELEPHONE NUMBER (area code and number) (982) 239-5377
SIGNATURE <i>Terrence L. Nayes</i>		DATE SIGNED 2-18-2019	
OWNER OR AUTHORIZED REPRESENTATIVE - Name and Official Title Roger Hill, General Manager		TELEPHONE NUMBER (area code and number) 606835646	
SIGNATURE		DATE SIGNED	

Expires 12-31-19



MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM, WATER POLLUTION BRANCH
(SEE MAP FOR APPROPRIATE REGIONAL OFFICE)

**FORM R – PERMIT APPLICATION FOR LAND APPLICATION
OF INDUSTRIAL WASTEWATER BIOSOLIDS AND RESIDUALS**

FOR AGENCY USE ONLY

PERMIT NUMBER

MO -

DATE RECEIVED

INSTRUCTIONS: FORMS A & C or F (CAFOs) (and D where applicable) must also be submitted for land application of industrial wastewater sludge biosolids or residuals. **Submit FORMS E and G** for land disturbance permit if construction areas total five acres or more.

Attach **FORM I**, if wastewater will be land applied or irrigated. (Liquid fertilizer residuals are land applied under Dept. of Ag permit).

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☐ Operating Permit (if no construction permit, attach engineering documents)
Date Land Application System Began Operation: _____
☒ Operating Permit Renewal

1.30 Months when the business or enterprise will operate or generate sludge or residuals:

☒ 12 months per year ☐ Part of year (list Months): _____

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Outfall Nos. _____ #004, #005

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2.10 Number of storage basins: 2 Type of basin: ☐ Steel ☐ Concrete ☐ Fiberglass ☒ Earthen
☐ Earthen with membrane liner

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Basin #1: 5 days Basin #2: 5 days Basin #3: na days

2.50 Attach Water Balance Test results to verify earthen basin seal in accordance with 10 CSR 20-8.020(13) and (16), when required by the department. NA

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2.70 Attach a closure plan for lagoons, storage basins and treatment units. NA, ongoing

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3.10 Number of application sites 2 Total Available Acres 50 Minimum & Maximum % field slopes 0.08
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Location: _____ ¼ SE ¼ NW ¼ 13 Sec. 62N T 40WR Holt County 30 Acres

Attach extra sheets as necessary.

3.12 Type of vegetation: ☐ Grass hay ☐ Pasture ☐ Timber ☒ Row crops ☐ Other (describe) _____
Specific Crops and Yields/acre: Goal: 150 Actual for last five years: 113

3.20	Annual sludge production (gallons per year): <u>235,000</u> Actual <u>8,813</u> Design (dry tons per year): <u>39</u> Actual <u>5.2</u> Design Human Population Equivalent: <u>NA</u> Actual <u>NA</u> Design	
3.21	Land Application rate per acre: Design: <u>0.1</u> dry ton/year <u>0.1 - 0.017</u> ton/application <u>1-6</u> No. applications/year Actual: <u>0.78</u> dry ton/year <u>1.3 - 2.0</u> ton/application <u>0-1</u> No. applications/year Total amount land applied each year (total all sites) Design <u>5.2</u> dry ton/year Actual <u>39</u> dry ton/year Actual months used for land application: <input type="checkbox"/> Jan <input checked="" type="checkbox"/> Feb <input checked="" type="checkbox"/> Mar <input checked="" type="checkbox"/> Apr <input checked="" type="checkbox"/> May <input checked="" type="checkbox"/> Jun <input checked="" type="checkbox"/> Jul <input checked="" type="checkbox"/> Aug <input checked="" type="checkbox"/> Sep <input checked="" type="checkbox"/> Oct <input checked="" type="checkbox"/> Nov <input type="checkbox"/> Dec	
3.22	Land Application Rate is based on: <input checked="" type="checkbox"/> Nutrient Management Plan (N&P) <input checked="" type="checkbox"/> PAN <input type="checkbox"/> Conservative <input type="checkbox"/> Hydraulic Loading <input type="checkbox"/> Limiting Pollutant (Specify) <u>nitrogen</u> <input type="checkbox"/> Other (describe) _____	
3.30	Equipment type: <input type="checkbox"/> Tank wagon <input type="checkbox"/> Tank truck <input type="checkbox"/> Subsurface injection <input type="checkbox"/> Slinger spreader <input type="checkbox"/> Dry spreader <input checked="" type="checkbox"/> Other (describe) <u>spray nozzle and/or pivot irrigator.</u> Equipment Capacity: <u>39000</u> Gallons (cubic feet) per hour <u>115</u> Total hours of operation per year	
3.40	Public Use/Access Sites: If public use or access to land application site, describe pathogen treatment and site access restrictions. If human, animal, or organic wastes, refer to 40 CFR 503.32 for pathogen treatment methods. Attach extra sheets as necessary. <u>NA</u>	
3.50	Separation distance (in feet) from the outside edge of the biosolids application area to down gradient features: <u>50</u> Permanent flowing stream <u>NA</u> Losing Stream <u>NA</u> Intermittent (wet weather) stream <u>NA</u> Lake or pond <u>50</u> Property boundary <u>>500</u> Dwellings <u>>500</u> Water supply well _____ Other (describe) _____	
3.60	SOILS INFORMATION: Use information from the County Soil Survey, NRCS, or professional soil scientist. NOTE: On-site soils classification by a professional soil scientist may be required by the department where appropriate. Soil Series Name <u>81 wabash</u> Depth of bedrock <u>>6</u> Feet Depth to water table <u>0-1</u> Feet Soil Infiltration rate in inches/hour (in/hr) for most restrictive layer within the following soil depth ranges: <u>0 - 0.06</u> in/hr for 0-12 inch soil depth <u>0 - 0.06</u> in/hr for 12-24 inch soil depth <u>0 - 0.06</u> in/hr for 24-60 inch soil depth	
3.70	Attach Nutrient Management Plan (NMP) including calculations for plant available nitrogen (PAN) and other nutrients, crop requirements, crop yields and other management factors. Include USDA/NRCS phosphorus recommendations. O&M 7/2017	
3.80	Geologic Investigation: <u>10/2000</u> Date of most recent Geologic Report by Department's Division of Geology and Land Survey.	
3.81	Ground Water Monitoring Wells: (Attach Groundwater Monitoring Plan when required by department) <input checked="" type="checkbox"/> NONE <input type="checkbox"/> EXISTING <input type="checkbox"/> PLANNED NUMBER: _____ Monitoring Wells _____ Lysimeters	
3.90	Attach a current copy of the Operation and Maintenance (O&M) Plan for the land application system. Date of O&M Plan: <u>7/2017</u>	
3.91	Attach a site map showing topography, storage basins, land application sites, property boundary, streams, wells, roads, dwellings and other pertinent features. <u>See Google print</u>	
3.92	Attach a facility sketch showing treatment units, storage basins, pipelines, application sites and other features. <u>see C-01</u>	
4.00 INDUSTRIAL PROCESS INFORMATION		
4.10	Brief description of treatment processes prior to land application and note any changes made in last five years. (Attach extra sheets as necessary.) Iron and manganese from well water treated with reverse osmosis, ozone and sand filters, Rejects are settled in iron ponds .	
4.11	Detailed description of industrial production processes. Also indicate any changes made in last five years. (attach extra sheets as necessary) Corn is ground and fermented to ethanol. High quality/beverage grades produced. Impurities removed are denatured with gasoline. New fermenters were added.	

4.20 List of raw materials, chemicals, additives, products, and by-products (Attach extra sheets as necessary)
ozone, potassium permanganate, sodium hydroxide, sulfuric acid, sodium hypochlorite, hydrogen peroxide, Nalco polymers.

4.31 Attach following FORMS for wastewater to be land applied.
FORM C or F is required for all applicants. Use Form F for CAFOs.
FORM D is required for those industries listed in the Form D instructions or when required by the department.
Use actual testing results within last 12 months. For new operations use testing results from other similar operations or from published literature.

4.32 Are there any listed hazardous wastes in the material to be land applied: ☐ YES ☒ NO (If YES, attach testing results)

4.40 A. Are any Pollutants listed in 40 CFR 268.40 believed to be present in detectable concentrations: ☒ YES ☐ NO
B. Are any Pollutants listed in 10 CSR 20-7.031 believed to be present in detectable concentrations: ☒ YES ☐ NO
C. Are any Pollutants listed in EPA Process Design Manual for Land Treatment of Municipal Wastewater publication EPA-625/1-81-013, Table 4-5 and Table 4-16 believed present in detectable concentrations: ☒ YES ☐ NO
(Attach a copy of testing results for any pollutants that may be present in detectable concentrations.)

4.50 Environmental Assessment. Do any of the pollutants detected exceed the criteria for pollutant concentrations of limitations contained in the publications referenced in Section 4.40 of this form: ☐ YES ☒ NO
If YES, attach a copy of the Environmental Assessment as required in 10 CSR 20-8.020(3)(D).

5.00 SOIL TESTING RESULTS: Complete information for each pollutant listed and each land application site. Attach results of any other soil testing performed in the last 12 months. Soil sampling and testing should conform to University publication G9110, Sampling Your Soil for Testing; Soil Test Procedures for North Central Region (North Dakota Agricultural Experiment Bulletin 499-Revised); Methods of Soil Analysis, American Society of Agronomy, Inc.; Soil Testing and Plant Analysis, Soil Science Society of America, Inc.; EPA Methods; or other methods approved by the department. Attach extra sheets as necessary. Midwest Labs soil test 3/2018, #004 & #005.

Total area sampled is 50 acres. Each composite sample covers 1.4 acres. Each composite consists of 37 subsamples.
Sample depth: ☒ 0-6 inches ☐ 0-12 inches ☐ Other (describe) #004 - 15 samples, #005 - 22 samples

Pollutant	Concentration (mg/kg or ppm)			Pounds/ Acre	No. Composite Samples	Sample Period
	Minimum	Maximum	Average			
Organic Nitrogen as N	868	1381	4,258	1942	3	2018, 2017
Ammonia Nitrogen as N	3	26	11	17	3	2018, 2017
Nitrate Nitrogen as N	6	23	19	28	3	2018, 2017
Phosphorus as P (Bray 1P)	16	60	46	70	3	2018, 2017
Exchangeable Sodium %						lab forgot to test
Organic Matter (percent)	1.7	3.7	3.3	5	3	2018, 2017
Cation Exchange Capacity	29.1	30.7	30.3	46.1	3	2018, 2017
pH (standard units)	5.9	7.9			3	2018, 2017
Other pollutants present in the material to be land applied: (Attach extra sheets as necessary)						
sulfur	16	75	55	84	3	2018, 2017
potassium	220	384	321	489	3	2018, 2017
manganese	3	14	11	17	3	2018, 2017
iron	39	96	71	108	3	2018, 2017

6.00 LAND LIMITING CONSTITUENTS FOR LAND APPLICATION

6.10 Metals of Concern for Land Application. Complete information for each pollutant listed.

Analysis results must be for "TOTAL METALS". (Do NOT use TCLP, dissolved, total recoverable or other extraction methods.

Include all test results for the last 5 years and a minimum of 4 separate samples. Design: Part 503 Table 1 regulations.

Pollutant (total metals)	Concentration (mg/kg dry weight)			Design LBS/ Acre/Year	Type of Samples	Number Samples	Sample Location	Sample Period
	Minimum	Maximum	Average					
Aluminum	189	4,327	1,650		Grab	3	sludge bot	2019- 8yr
Arsenic	14.1	40	27	37	Grab	5	"	"
Beryllium	ND	ND	ND		Grab	1	"	"
Cadium	ND	17.6	10	35	Grab	5	"	"
Chromium	ND	3.3	3.3		Grab	5	"	"
Copper	ND	14.9	8.8	1,338	Grab	5	"	"
Fluoride	ND	111	81		Grab	3	"	"
Lead	ND	ND	ND	268	Grab	5	"	"
Manganese	694	8,957	3,792		Grab	5	"	"
Mercury	ND	ND	ND	15	Grab	5	"	"
Molybdenum	ND	3.0	3.0	114	Grab	5	"	"
Nickel	ND	13.9	13.9	374	Grab	5	"	"
Selenium	ND	2.2	2.2	89	Grab	5	"	"
Silver	ND	ND	ND		Grab	5	"	"
Tin	ND	ND	ND		Grab	3	"	"
Zinc	ND	163	52.1	2,498	Grab	5	"	"

6.20 Major Pollutants of Concern for Land Application. Complete information for each pollutant listed. Include any other pollutants that are most limiting for determining land application rates. Attach extra sheets as necessary.

Organic Nitrogen as N	1,800	11,944	4,258		Grab	5	"	"
Ammonia Nitrogen as N	ND	225	200		Grab	5	"	"
Nitrate Nitrogen as N	ND	60	32	15	Grab	5	"	"
Total Nitrogen as N	2,033	11,944	4,387	150	Grab	5	"	"
Plant Available Nitrogen (PAN)	211 Lb/ac	445 Lb/ac	290 LB/ac	194	Grab	3	"	"
Total Phosphorus as P	1,525	33,733	17,414	<120	Grab	5	"	"
Boron	ND	328	190		Grab	4	"	"
Chlorides	163	8,520	3,837		Grab	5	"	"
Sodium	578	6,872	3,360		Grab	5	"	"
COD	679	2,320	1,611		Grab	3	"	"
TPH	ND	6,204	6,204		Grab	2	"	"
Total Suspended Solids	10,500	61,000	35,800		Grab	4	"	"
Oil & Grease	ND	ND	ND	<10,000	Grab	1	"	"
Sodium Absorption Ration (SAR)	0.24	37	19		Grab	3	"	"
pH (standard units)	7.1	7.6		6.5 to 9.0	Grab	5	"	"

6.30 Other Limiting Pollutants for Land Application Rates. Specify any other pollutants that are most limiting for determining land application rates. Include any additional significant pollutants from Section 4 that is not already listed in Section 6.00. Attach extra sheets as necessary.

Pollutant	Concentration (mg/kg dry weight)			Design LBS/ Acre/Year	Type of Samples	Number Samples	Sample Location	Sample Period
	Minimum	Maximum	Average					
potassium	187	2,087	859			5	sludge bot	2019-8yr
sulfur	749	6830	2,621			5	"	"
iron	14,870	277,600	139,677			5	"	"
						5	"	"
barium	321	5300	2,812			5	"	"
solids %	1.5	17.7	6.3			5	"	"
phosphate P2O5	3,493	77,249	39,875			5	"	"
potash K2O	225	2,513	1,034			5	"	"
magnesium	1,590	12,174	6,235			5	"	"

6.40 Requirements for Public Use Sites. Complete this if land application onto public use or public access sites or if material will be distributed for general public use. Fecal Coliform, Salmonella and Enteric Virus must be tested if the biosolids include waste material from humans, animals, vegetables or organic matter.

Pollutant	Concentration (mg/kg dry weight)			Type of Samples	Number Samples	Sample Location	Sample Period
	Minimum	Maximum	Average				
Total Dioxin TEQ*							
*Required Only for public access sites. TEQ = Toxicity Equivalents for CDD and CDF isomers per EPA Publication EPA/625/3-89/016 and EPA method 1613. Detection limits must be less than 1.0 ppt.							
Fecal Coliform							
Salmonella							
Enteric Virus							
Other (specify)							

7.00 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

Nayes associates, LLC / Terrence Nayes, PE

SIGNATURE

Terrence L. Nayes

OWNER OR AUTHORIZED REPRESENTATIVE - Name and Official Title

Roger Hill, General Manager

SIGNATURE

Roger Hill G.M.

(TYPE OR PRINT)

TERRENCE LEE
NAYES
NUMBER
2003014820

(TYPE OR PRINT)

PROFESSIONAL ENGINEER

TELEPHONE NUMBER (area code and number)

(952) 239-5377

DATE SIGNED

2-18-2019

TELEPHONE NUMBER (area code and number)

606835646

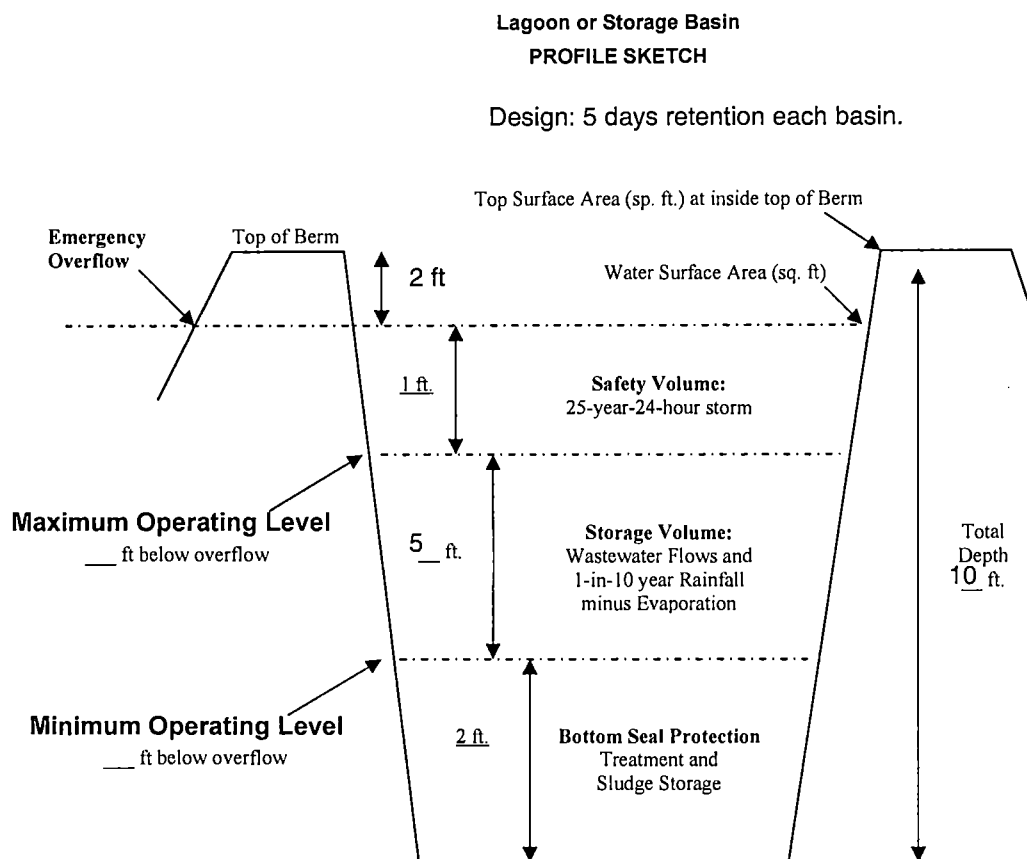
DATE SIGNED

2/26/2019

Expires 12-31-19

ATTACHMENT A

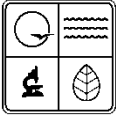
(To be included with Form I and Form R)



Ref, Bennett and Associates, Site Plan with Proposed settling basin, 11/10/2000

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.



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

Golden Triangle Energy, LLC

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

MO-0126161

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 2085 B. SECOND 2869
C. THIRD 2048 D. FOURTH 2079

2.10 FOR EACH OUTFALL GIVE THE LEGAL DESCRIPTION.

OUTFALL NUMBER (LIST) NW 1/4 NW 1/4 SEC 13 T 62N R 40W Holt COUNTY

2.20 FOR EACH OUTFALL LIST THE NAME OF THE RECEIVING WATER

OUTFALL NUMBER (LIST)

001
002
003
004 and 005

RECEIVING WATER

001, 002, & 003 - Unnnamed tributary to old channel
Tarkio Creek, first classified as Little Tarkio Creek.
004 and 005 are applied to land onsite, owned by
Golden Triangle Energy.

2.30 BRIEFLY DESCRIBE THE NATURE OF YOUR BUSINESS

Ethanol production from corn and purchased ethanol. Beverage and high quality industrial grade ethanol are the primary products. Impurities removed are sold in the fuel grade ethanol market. Byproduct spent grains in wet or dried form, with thin stillage evaporated syrup are sold to the feed market. Corn oil is extracted from the stillage and sold to various markets. Denaturants are added to some high quality industrial grades under 27 CFR 21.151 specialty denatured spirits. Gasoline denaturant is added to the fuel grade ethanol product.

A. Attach a line drawing showing the water flow through the facility. Indicate sources of intake water, operations contributing wastewater to the effluent and treatment units labeled to correspond to the more detailed descriptions in item B. Construct a water balance on the line drawing by showing average flows between intakes, operations, treatment units, public sewers and outfalls. If a water balance cannot be determined (e.g., for certain mining activities), provide a pictorial description of the nature and amount of any sources of water and any collection or treatment measures.

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.

See spreadsheet, 2019 NPDES renewal Calcs GTE_190124, tab PFD water balance.

1. OUTFALL NO.	2. OPERATION(S) CONTRIBUTING FLOW		3. TREATMENT	
(LIST)	A. OPERATION (LIST)	B. AVERAGE FLOW (INCLUDE UNITS) (MAXIMUM FLOW)	A. DESCRIPTION	B. LIST CODES FROM TABLE A
001	Stormwater control	Line 31, 13,700 gal/day	Settling/Evaporation	1-U, 1-F, 4-A
	Max at 6 inch rain, one day	(2,533,775) gal/day		
002	Well RO #1 & 2 rejects	Line 20, 132,300 gal/day	ozone, sand filter, ca	1-R, 2-E, 2-B, 2-C,
	cooling tower blowdown	Line 13, 30,900 gal/day	"	4-A
	reclaim permeate (optional)	Line 11, 0 to 37,500 gal/day	"	"
003	ozone clarifier sludge	Line 22, 5,000 gal/day	ozone, settling pond	2-B, 1-U, 4-A
	sand filter backwash	Line 23, 41,800 gal/day	"	"
004	Iron pond sludge to land, north	Line 26, 2,200 gal/day	settled iron sludge	1-U, 5-P
		(78,300 gal/day)		
005	ron pond sludge to land, souh	Line 27, 3,300 gal/day	settled iron sludge	1-U, 5-P
		(78,300 gal/day)		
To the City of Craig	RO reclaim permeate	Line 9, 37,500 gal/day	reverse osmosis	1-S
	Sanitary waste	Line 33, 700 gal/day	none	

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	
004	Sludge removal from pond bottoms or from settling clarifier.	4	<1	0.00068	0.0.0783	78,300 gal/day	200,000 gal/day	3
005	Same as 004; alternate years of application from 004 to 005.			0.396				
005	Pivot (Dept. of Ag fertilizer permit).	4.2	<1		0.396	396,000 gal/day	396,000 gal/day	4.2
001	Form P hydrotest water to SW pond.	3	<1	0.088	0.088	88,400 gal/day	88,400 gal/day	2.9

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)

40 CFR 414.61 ethanol and 40 CFR 406.22 dry corn milling.

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)	
12 and (4) 10.5 and (3.5)	lb/1000 BU corn lb/1000 BU corn	BOD5, dry corn milling; daily max. 40 CFR 406.22; (monthly avg.). TSS, dry corn milling; daily max; (monthly avg.).	002 and 003
80 and (30) 149 and (46)	mg/l mg/l	BOD5, organic chemicals (ethanol) 40 CFR 414.61; (monthly avg.). TSS, organic chemicals (ethanol) 40 CFR 414.61; (monthly avg.).	002 and 003
6.0 to 9.0	Std units	pH, both 40 CFR 406.22 and 414.61.	002 and 003

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
Letter of warning dated 9/30/2014.			1) 5/6/2014 failure of residual chlorine test unreported. (002) 2) railcar wash-pad drained pollutants to stormwater. (001)	10/30/14	10/30/14
Letter of warning dated 6/8/2017.		002, 001, 005	3) Spill from pivot thin stillage application, at night and not reported within 24 hours. (005)	5/11/17	5/24/17

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.

Planned option to divert RO reclaim permeate from discharge to the City of Craig, to the ozone treatment system, #002.

This option could be implemented if the City has trouble meeting it's NPDES permit limits.

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
Outfall #001			
BOD/COD	sediment, grain spills	ethyl acetate, hexane, isopropyl	Denaturant if spilled
TSS	sediment	alcohol, methanol, ter. butyl	Denaturant if spilled
O&G/TPH	trucks, corn oil, syrup	alcohol, bitrex, toluene,	Denaturant if spilled
pH	sulfuric acid or sodium hydroxid	MiBK, EEP, gasoline,	Denaturant if spilled
ammonia	anhydrous spill	CLPTES	Denaturant if spilled
Outfall #002 & #003			
BOD/COD	RO reclaim permeate process w		
TSS	unsettled floc		
phosphorus	process water		
surfactant	dispersant		
chlorine, sulfite (#002 only)	chlorination/dechlor.		
herbicide/pesticide (#003 only)	Rotenone		
all others	natural in well water		
Outfall #004 & #005			
BOD/COD	thin stillage, syrup		
Nitrogen	process water, fertilizer		
Phosphorus	process water		
Surfactant	dispersants used		
O&G	thin stillage, syrup		
pH	thin stillage, syrup		
all others	natural in well water		

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)

July 2016 WET test, Midwest Labs # WO1517687. Per NPDES permit requirement.

August 2017 WET test, Midwest Labs # WO1529628. Per NPDES permit requirement.

August 2018, PACE WET test Aug 2018_60277048_frc.pdf"

3.20 CONTRACT ANALYSIS INFORMATION

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

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

A. NAME	B. ADDRESS	C. TELEPHONE (area code and number)	D. POLLUTANTS ANALYZED (list)
Midwest Laboratories	Midwest Laboratories 13611 B Street Omaha, NE 68144	P 402-334-7770	All data reported in Table 1 except: Temperature C pH Standard Units Conductance µMohs Dissolved Oxygen mg/L Total Residual Chlorine mg/L
Pace Analytical Services, LLC	9608 Loiret Blvd. Lenexa, KS 66219	(913) 599-5665	Surfactants

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)

Roger Hill, General Manager

TELEPHONE NUMBER WITH AREA CODE

(660) 683-5646

SIGNATURE (SEE INSTRUCTIONS)

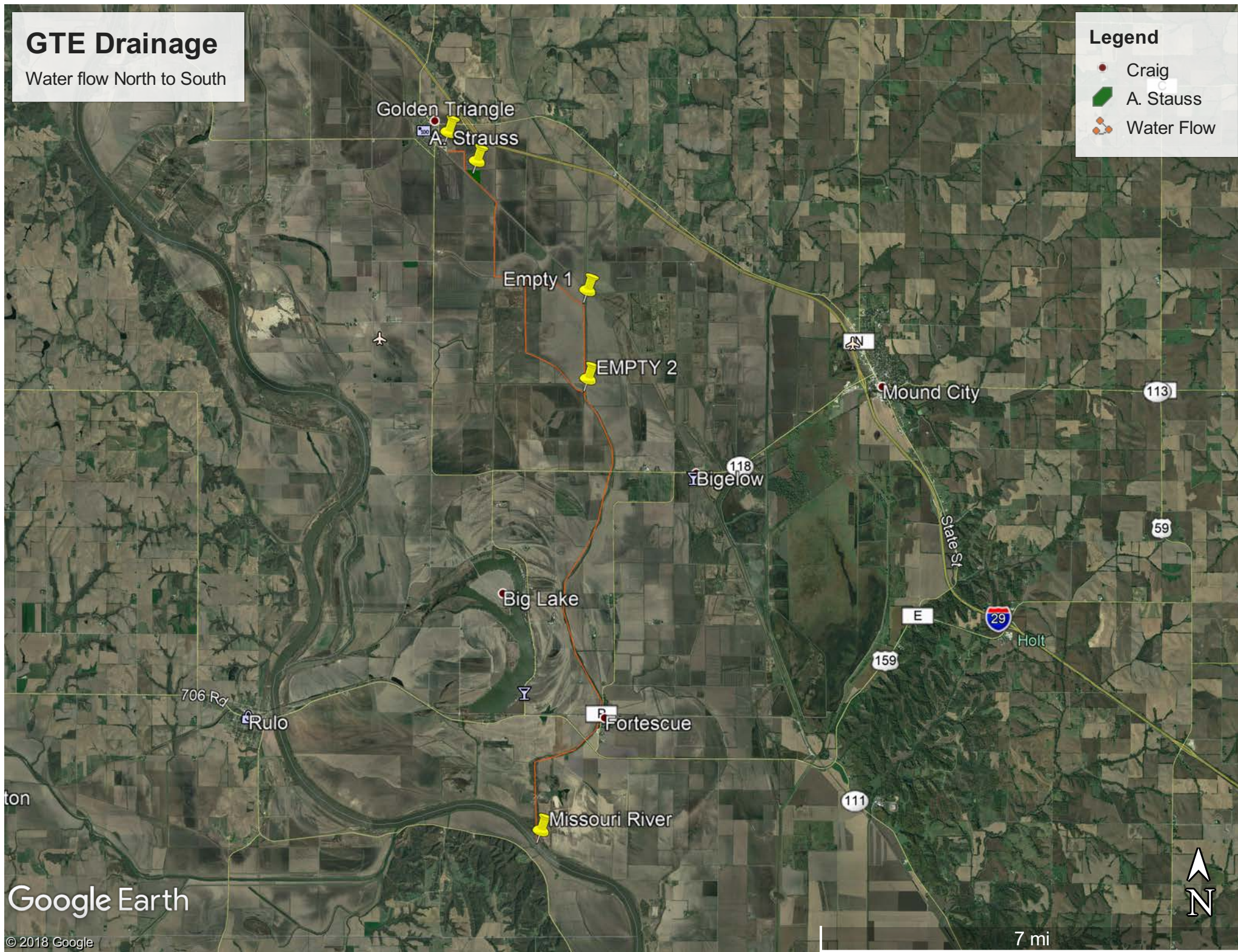
DATE SIGNED

GTE Drainage

Water flow North to South

Legend

- Craig
- A. Stauss
- Water Flow



Google Earth

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