

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, 92<sup>nd</sup> Congress) as amended,

Permit No. MO-0124940

Owner: Dogwood Power Management, LLC  
Address: 6700 Alexander Bell Drive, Suite 360, Columbia, MD 21046

Continuing Authority: same as above  
Address: same as above

Facility Name: Dogwood Energy Facility  
Facility Address: 25111 E. 175<sup>th</sup> Street, PO Box 110, Pleasant Hill, MO 64080

Legal Description: SE ¼, SW ¼, Sec. 13, T46N, R31W, Cass County  
UTM Coordinates: see page two

Receiving Stream: Tributary to Rock Island Lake  
First Classified Stream and ID: Big Creek (P) WBID# 1250; 303(d) Listed  
USGS Basin & Sub-watershed No.: Headwaters Big Creek 10290108-0302

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

**FACILITY DESCRIPTION**

See page two.

This permit authorizes only stormwater and cooling water 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.

August 1, 2016  
Effective Date

Sara Parker Pauley, Director, Department of Natural Resources

September 30, 2020  
Expiration Date

John Madras, Director, Water Protection Program

## FACILITY DESCRIPTION

**OUTFALL #001** Power Plant; SIC #4911; NAICS 221112  
650 MW 2x1 Natural Gas combined cycle electric generating facility  
Primarily stormwater and occasional cooling water discharges;  
UTM Coordinates: X = 387142, Y = 4294614  
Design flow: 2.79 MGD  
Actual flow: Dependent upon precipitation

**OUTFALL #002** Stormwater only; no industrial exposure; converted from lay-down area to grass; no sampling or reporting required.  
UTM Coordinates: X = 386921, Y = 4294796  
Design flow: 1.1 MGD  
Actual flow: Dependent upon precipitation

**PERMITTED FEATURE #003** Domestic wastewater sanitary pretreatment system that flows into an evaporative non-discharging lagoon.  
UTM Coordinates: X = 387151, Y = 4294734  
Design flow: 0  
Actual flow: 0

### A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

OUTFALL #001 <i>main outfall</i>	TABLE A-1 FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS					
The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective on <b>August 1, 2016</b> 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
<b>PHYSICAL</b>						
Flow	MGD	*		*	twice/year φ	24 hour total
Precipitation ∞	Inches	*		-	twice/year φ	measured
<b>CONVENTIONAL</b>						
Oil & Grease	mg/L	15		10	twice/year φ	grab
pH (Note A)	SU	6.5 to 9.0		6.5 to 9.0	twice/year φ	grab
Settleable Solids	mL/L/hr	1.5		1.0	twice/year φ	grab
Total Residual Chlorine (Note B)	µg/L	*		*	twice/year φ	grab
Total Suspended Solids	mg/L	100		50	twice/year φ	grab
MONITORING REPORTS SHALL BE SUBMITTED <b>TWICE YEARLY</b> ; THE FIRST REPORT IS DUE <b>JANUARY 28, 2017</b> . THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						

**A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (CONTINUED)**

<b>Permitted Feature #003</b> <i>domestic wastewater</i>		<b>TABLE A-2</b> <b>FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS</b>				
The permittee is authorized to discharge from Permitted Feature (s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective on <b>August 1, 2016</b> 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
<b>PHYSICAL</b>						
Flow	MGD	*		-	once/discharge	24 hour total
<b>CONVENTIONAL</b>						
BOD <sub>5</sub>	mg/L	*		-	once/discharge	grab
Chlorine, Total Residual	µg/L	*		-	once/discharge	grab
<i>E. coli</i>	#/100mL	*		-	once/discharge	grab
pH (Note A)	SU	6.5 to 9.0		-	once/discharge	grab
TSS	mg/L	*		-	once/discharge	grab
<b>NUTRIENTS</b>						
Ammonia as N	mg/L	*		-	once/discharge	grab
MONITORING REPORTS SHALL BE SUBMITTED NO MORE THAN 60 DAYS FROM DISCHARGE. THE REPORT IS UNSCHEDULED THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						

\* Monitoring requirement only

- n/a

∞ Precipitation data may be obtained from the nearest rain gauge or weather monitoring station. Data only need be obtained on the day of the discharge from which sampling occurred. The facility is not required to submit monthly average data as this data is easily obtained online.

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

Note B The facility is not required to sample for total residual chlorine if there is no discharge of cooling tower water within the monitoring period. Report “no discharge” for this parameter.

∅ Twice Yearly Sampling Schedule:

<b>MINIMUM BI-ANNUAL SAMPLING REQUIREMENTS</b>			
	<b>MONTHS</b>	<b>SAMPLE</b>	<b>REPORT IS DUE</b>
First Half of Year	January, February, March, April, May, June	Sample at least once during any month of the half year	July 28th
Second Half of Year	July, August, September, October, November, December	Sample at least once during any month of the half year	January 28th

## B. STANDARD CONDITIONS

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

## C. SPECIAL CONDITIONS

1. All outfalls must be clearly marked in the field.
2. It is a violation of the Missouri Clean Water Law to fail to pay fees associated with this permit (644.055 RSMo).
3. Any pesticide discharge from any point source shall comply with the requirements of Federal Insecticide, Fungicide and Rodenticide Act, as amended (7 U.S.C. 136 ET. SEQ.) and the use of such pesticides shall be in a manner consistent with its label.
4. Report as no-discharge when a discharge does not occur during the report period.
5. Water Quality Standards
  - (a) To the extent required by law, discharges to waters of the state shall not cause a violation of water quality standards rule under 10 CSR 20-7.031, including both specific and general criteria.
  - (b) General Criteria. The following general water quality criteria shall be applicable to all waters of the state at all times including mixing zones. No water contaminant, by itself or in combination with other substances, shall prevent the waters of the state from meeting the following conditions:
    - (1) Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses;
    - (2) Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses;
    - (3) Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses;
    - (4) Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life;
    - (5) There shall be no significant human health hazard from incidental contact with the water;
    - (6) There shall be no acute toxicity to livestock or wildlife watering;
    - (7) Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community;
    - (8) Waters shall be free from used tires, car bodies, appliances, demolition debris, used vehicles or equipment and solid waste as defined in Missouri's Solid Waste Law, section 260.200, RSMo, except as the use of such materials is specifically permitted pursuant to section 260.200-260.247.
6. Changes in Discharges of Toxic Pollutant

In addition to the reporting requirements under §122.41(1), all existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Director as soon as they know or have reason to believe:

  - (a) That an activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following notification levels:
    - (1) One hundred micrograms per liter (100 µg/L);
    - (2) Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile;
    - (3) Five hundred micrograms per liter (500 µg/L) for 2,4-dinitrophenol and for 2-methyl-4, 6-dinitrophenol;
    - (4) One milligram per liter (1 mg/L) for antimony;
    - (5) Five (5) times the maximum concentration value reported for the pollutant in the permit application in accordance with 40 CFR 122.21(g)(7); or
    - (6) The notification level established by the department in accordance with 40 CFR 122.44(f).
  - (b) That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
    - (1) Five hundred micrograms per liter (500 µg/l);
    - (2) One milligram per liter (1 mg/l) for antimony;
    - (3) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with §122.21(g)(7).
    - (4) The level established by the Director in accordance with §122.44(f).

C. SPECIAL CONDITIONS (CONTINUED)

7. Reporting of Non-Detects
  - (a) An analysis conducted by the permittee or their contracted laboratory shall be conducted in such a way that the precision and accuracy of the analyzed result can be enumerated.
  - (b) The permittee shall not report a sample result as "Non-Detect" without also reporting the detection limit of the test. Reporting as "Non-Detect" without also including the detection limit will be considered failure to report, which is a violation of this permit.
  - (c) The permittee shall report the "Non-Detect" result using the less than sign and the minimum detection limit (e.g. <10).
  - (d) The permittee shall use one-half (½) of the detection limit for the non-detect result when calculating and reporting monthly averages.
  - (e) See Standard Conditions Part I, Section A, #4 regarding proper detection limits used for sample analysis.
8. The purpose of the SWPPP and the BMPs listed herein is the prevention of pollution of waters of the state. A deficiency of a BMP means it was not effective in preventing pollution [10 CSR 20-2.010(56)] of waters of the state, and corrective actions means the facility took steps to eliminate the deficiency.
9. The permittee shall implement a Stormwater Pollution Prevention Plan (SWPPP). The SWPPP must be prepared and implemented upon permit issuance. The SWPPP must be kept on-site and should not be sent to the department unless specifically requested. The SWPPP must be reviewed and updated, if needed, every five (5) years or as site conditions change. The permittee shall select, install, use, operate, and maintain the Best Management Practices prescribed in the SWPPP in accordance with the concepts and methods described in the following document: *Developing Your Stormwater Pollution Prevention Plan, A Guide for Industrial Operators*, (Document number EPA 833-B-09-002) published by the United States Environmental Protection Agency (USEPA) in February 2009.

The SWPPP must include the following:

  - (a) A listing of specific Best Management Practices (BMPs) and a narrative explaining how BMPs will be implemented to control and minimize the amount of potential contaminants that may enter stormwater. The BMPs at the facility should be designed to meet this value during rainfall event up to the 10 year, 24 hour rain event.
  - (b) The SWPPP must include a schedule for (at a minimum) 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. Deficiencies must be corrected within seven (7) days and the actions taken to correct the deficiencies shall be included with the written report, including photographs. 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.
  - (c) A provision for designating an individual to be responsible for environmental matters.
  - (d) A provision for providing training to all personnel involved in material handling and storage, and housekeeping of maintenance and cleaning areas. Proof of training shall be submitted on request of the department.
10. Permittee shall adhere to the following minimum Best Management Practices (BMPs):
  - (a) Prevent the spillage or loss of fluids, oil, grease, fuel, etc. from vehicle maintenance, equipment cleaning, or warehouse activities and thereby prevent the contamination of stormwater from these substances.
  - (b) Provide collection facilities and arrange for proper disposal of waste products including but not limited to petroleum waste products, and solvents.
  - (c) Store all paint, solvents, petroleum products and petroleum waste products (except fuels), and storage containers (such as drums, cans, or cartons) so that these materials are not exposed to stormwater or provide other prescribed BMPs such as plastic lids and/or portable spill pans to prevent the commingling of stormwater with container contents. Commingled water may not be discharged under this permit. Provide spill prevention control, and/or management sufficient to prevent any spills of these pollutants from entering waters of the state. Any containment system used to implement this requirement shall be constructed of materials compatible with the substances contained and shall also prevent the contamination of groundwater.
  - (d) Provide good housekeeping practices on the site to keep trash from entry into waters of the state.
  - (e) Provide sediment and erosion control sufficient to prevent or control sediment loss off of the property. This could include the use of straw bales, silt fences, or sediment basins, if needed, to comply with effluent limits or benchmarks.
11. To protect the general criteria found at 10 CSR 20-7.031(4), before releasing water accumulated in secondary containment areas, it must be examined for hydrocarbon odor and presence of sheen. If the presence of odor or sheen is indicated, the water shall be treated using an appropriate method or disposed of in accordance with legally approved methods, such as being sent to a wastewater treatment facility. Following treatment, the water shall be tested for oil and grease, benzene, toluene, ethylbenzene, and xylene using 40 CFR part 136 methods. All pollutant levels must be below the most protective, applicable standards for the receiving stream, found in 10 CSR 20-7.031 Table A. Records of all testing and treatment of water accumulated in secondary containment shall be stored in the SWPPP to be available on demand to DNR and EPA personnel.

C. SPECIAL CONDITIONS (CONTINUED)

12. Release of a hazardous substance must be reported to the department in accordance with 10 CSR 24-3.010. A record of each reportable spill shall be retained with the SWPPP and made available to the department upon request.
13. 40 CFR 423 “Neither free available chlorine nor total residual chlorine may be discharged from the cooling tower for more than two hours in any one day and not more than one unit in any plant may discharge free available or total residual chlorine at any one time unless the utility can demonstrate to the [state] that the units in a particular location cannot operate at or below this level of chlorination.”

D. SPECIAL CONDITIONS FOR DOMESTIC WASTEWATER

1. The facility will have 90 days from date of issuance to place an appropriate sign marking the new permitted feature #003. The sign must be placed at the lowest point from which the wastewater would discharge.
2. Releases of untreated domestic wastewater are to be reported to the Kansas City Regional Office during normal business hours or the Environmental Emergency Response hotline at 573-634-2436 outside of normal business hours.
3. Land application of effluent or sludge is not authorized by this permit. Land application may occur after treatment if authorized by the Missouri State Operating Permit for the facility receiving the wastewater or sludge.

**MISSOURI DEPARTMENT OF NATURAL RESOURCES**  
**FACT SHEET**  
**FOR THE PURPOSE OF RENEWAL**  
**OF**  
**MO-0124940**  
**DOGWOOD ENERGY FACILITY**

The Federal Water Pollution Control Act ("Clean Water Act" Section 402 Public Law 92-500 as amended) established the National Pollution Discharge Elimination System (NPDES) permit program. This program regulates the discharge of pollutants from point sources into the waters of the United States, and the release of stormwater from certain point sources. All such discharges are unlawful without a permit (Section 301 of the "Clean Water Act"). After a permit is obtained, a discharge not in compliance with all permit terms and conditions is unlawful. Missouri State Operating Permits (MSOPs) are issued by the Director of the Missouri Department of Natural Resources (Department) under an approved program, operating in accordance with federal and state laws (Federal "Clean Water Act" and "Missouri Clean Water Law" Section 644 as amended). MSOPs are issued for a period of five (5) years unless otherwise specified for less.

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

**Part I. FACILITY INFORMATION**

Facility Type:	Categorical Industrial
Facility SIC Code(s):	4911
Facility NAICS Code:	221112
Application Date:	11/24/2014
Modification Date:	6/6/2012
Expiration Date:	5/11/2015
Last Inspection:	05/14/2013; in compliance

**FACILITY DESCRIPTION:**

The Dogwood Energy Facility is a 650 MW 2X1 natural gas only combined cycle electric generating facility. -The plant is an intermediate plant, meaning that it can be a baseload or peaking plant. The installation consists of two natural gas fired Siemens-Westinghouse Model 501FD2 turbines connected to two heat recovery steam generators with duct burners and power augmentation, capable of producing 650 MW during peak production. The HRSG uses the heat recovered from the gas turbine exhaust in addition to supplemental heat from the duct burner to provide steam to power a common steam-electric generator for further power generation. Power augmentation is accomplished by injecting steam from the HRSG into the combustion turbine. A seven-cell cooling tower draws heat from the water used to cool the steam condenser.

The site encompasses 69 acres, of which 26 acres is fenced, 15 acres is industrial, and 11 acres is non-industrial. Plant drains, cooling tower blowdown, and an oil-water separator are all discharged to the on-site treatment facility. All water is evaporated or recycled for reuse in various plant systems. Solids removed from the system are sent to a landfill as a permitted special waste.

**OUTFALL #001**

Industrial stormwater from the site is discharged through outfall #001. Occasionally, the facility may overflow the cooling towers. This municipal water is diverted to the storage basin; depending on the amount, the basin may or may not discharge. The facility has installed high-level alarms on the cooling towers and a discharge of cooling tower water has not occurred in quite some time (February 2008). In 2008, the facility lost about 500 gallons of water; most of which soaked into the ground according to the Environmental Emergency Response report #0802211558ADC. The basin discharges primarily stormwater. The basin provides settling and retention time. The facility also maintains a floating non-adsorbent oil boom in the basin in case of any oil spills on site. The facility visually inspects the basin for sheen and other concerns regularly.

**OUTFALL #002**

Non-industrial stormwater is discharged through outfall #002. The previous permit identified outfall #002 as industrial exposure but has since been determined outfall #002 is not exposed to any industrial activity. The facility graded and constructed a detention basin while reconstructing outfall #002 with a weir. The lay down area was seeded in 2011 and again in 2013. At the time of the meeting, the facility had well established grass in the areas leading to outfall #002. Additionally, the facility paved the roads in the area to further reduce TSS loading to outfall #002. The facility is no longer required to sample from this outfall, however it will remain

properly identified in the field. No industrial exposure remains. If the facility begins to use this area again for any industrial activity, the facility must contact the department and obtain a permit modification.

**PERMITTED FEATURE #003**

Domestic wastewater is contained within the northeastern (upper) pond. The domestic wastewater system at Dogwood is a Singular Bio-Kinetic Wastewater treatment unit that discharges into an evaporation pond constructed in 1999. The Bio-kinetic system has a pretreatment chamber that has a 1,000 gallon capacity and an extended aeration chamber with two aerators combined with a final clarification chamber that has a combined 1,300 gallon capacity, for a total system capacity of 2,300 gallons and a rated thru-put capacity of 1,000 gallons per day. The Bio-Kinetic system discharges into an evaporation pond which has a capacity at the four foot mark of 126,878 gallons. The system was engineered and permitted for the plant (see attached documents). In the time that I have been in my current position (Approximately 8 years) Dogwood has only had to haul effluent off site during system maintenance activities. It has never hauled due to the evaporation pond filling to capacity or experienced an overflow of any kind. Dogwood has always considered this to be a no discharge system.

The domestic wastewater is treated on-site therefore releases to the environment may occur without penalty. The facility has designed the wastewater treatment system as a no-discharge system therefore monitoring is conditional upon discharge. The facility is not allowed to bypass treatment and untreated sanitary wastes are subject to 40 CFR 122.41(m) and reported according to 40 CFR 122.41(m)(3)(i) & (ii).

**PERMITTED FEATURES TABLE:**

OUTFALL	AVERAGE FLOW (MGD)	DESIGN FLOW (MGD)	TREATMENT LEVEL	EFFLUENT TYPE
#001	dependent upon precipitation	2.79	BMPs	Cooling Tower Discharges and Stormwater
#002	dependent upon precipitation	1.1	BMPs	no industrial exposure
#003	no discharge	0	aeration, settling	domestic wastewater

BMPs = Best Management Practices

**FACILITY PERFORMANCE HISTORY & COMMENTS:**

The electronic discharge monitoring reports were reviewed for the last five years. Outfall #001 had two exceedances of total suspended solids, one in the first half of the year in 2013, and the other in the first half of the year in 2015. The exceedances were 84 mg/L and 54 mg/L respectively with an applied monthly average limit of 50 mg/L. The overall performance of the facility was rated as compliant.

**FACILITY MAP:**

The facility is located just east of Pleasant Hill in Cass County. The stream on the right side of the picture is Big Creek. The facility is encircled below. The transformer/transmission pad located on the north side of the facility is not owned by the Dogwood Energy Facility.



**Part II. RECEIVING STREAM INFORMATION**

**APPLICABLE DESIGNATIONS OF WATERS OF THE STATE:**

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

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

Classes [10 CSR 20-7.031(1)(F)1. to 8.] of water bodies which may be found in the receiving streams table below are:

Lakes: L1 = drinking supply lakes; L2 = major reservoirs; L3 = other

Streams: P = permanent streams; P1 = standing water of P streams; C = may cease flow in droughts but maintains permanent pools; E = ephemeral; W = natural wetlands

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

Uses which may be found in the following receiving streams table:

10 CSR 20-7.031(1)(C)1.: Protection and propagation of fish, shellfish, and wildlife (formerly AQL; this permit uses AQL effluent limitations in 10 CSR 20-7.031 Table A for all habitat temperature designations unless otherwise specified)

WWH = Warm Water Habitat; CLH = Cool Water Habitat; CDH = Cold Water Habitat; EAH = Ephemeral Aquatic Habitat; MAH = Modified Aquatic Habitat; LAH = Limited Aquatic Habitat

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

WBC = Whole Body Contact; WBC-A = public swimming; WBC-B = swimming

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

10 CSR 20-7.031(1)(C)3. to 7.: HHP (formerly HHF) = Human Health Protection (fish consumption); IRR = irrigation;

LWP (formerly LWL) = Livestock And Wildlife Protection; DWS = Drinking Water Supply;

IND = industrial water supply

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

- ✓ As per Missouri’s stormwater regulations [10 CSR 20.6.200(6)(B)2.] and federal regulations [40 CFR 122.26(b)(14)], the department shall establish limits necessary to protect waters of the state. Effluent limitations or benchmarks for stormwater are established using best professional judgment based on the category, impairments, technology available, and designated uses of the receiving stream.

**RECEIVING WATER BODY’S WATER QUALITY:**

The receiving stream, a tributary to Rock Island Lake has no concurrent water quality data available. However, the lake discharges to a tributary to Big Creek. Big Creek is listed on the 303(d) list for *Escherichia coli* and the WBC-B use is impaired. The facility is unlikely a contributor to this impairment. Secondly, Big Creek is associated with a TMDL and this facility falls within the affected watershed. There is a possibility this facility has contributed to the sediment impairment listed in the TMDL in the past. While the facility was not specifically identified as a contributor to the impairment, the document does include point sources and stormwater runoff as potential contributors of the compounded sedimentation (a gravel quarry is located on the banks of Big Creek upstream of the facility). The facility has performed extensive work at the site to decrease sediment runoff. From 2008-2014, the facility reconstructed outfall #002 and transformed the un-vegetated lay-down area into a grassy area which is no longer used for industrial activities.

**303(d) LIST:**

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

- ✓ Applicable; Big Creek is listed on the 2014 Missouri 303(d) list for *E. coli*. This facility is not considered to be a source of the above listed pollutants or considered to contribute to the impairment.

**TOTAL MAXIMUM DAILY LOAD (TMDL):**

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

- ✓ Applicable; this facility falls within the watershed of Big Creek and is associated with the 2006 EPA approved TMDL for sediments. This facility is not considered to be a source of, or has the potential to contribute to, the above listed pollutant.

**RECEIVING STREAMS TABLE:**

OUTFALL	WATERBODY NAME	CLASS	WBID	DESIGNATED USES	DISTANCE TO SEGMENT (TOTAL)	12-DIGIT HUC
#001	Tributary to Rock Island Lake	n/a	n/a	GEN	0.0 mi	Headwaters Big Creek 10290109-0302
	Rock Island Lake	n/a	n/a	GEN	0.26 mi	
	Tributary to Big Creek	n/a	n/a	GEN	0.45 mi	
	Big Creek	P	1250	AQL (WWH), HHP, IRR LWP, SCR, WBC-B	1.2 mi	

n/a = not applicable

WBID = Waterbody ID: Missouri Use Designation Dataset 8-20-13 MUDD V1.0 data can be found as an ArcGIS shapefile on MSDIS at [http://msdis.missouri.edu/pub/Inland\\_Water\\_Resources/MO\\_2014\\_WQS\\_Stream\\_Classifications\\_and\\_Use\\_shp.zip](http://msdis.missouri.edu/pub/Inland_Water_Resources/MO_2014_WQS_Stream_Classifications_and_Use_shp.zip)

**MIXING CONSIDERATIONS:**

- Mixing Zone: Not Allowed [10 CSR 20-7.031(5)(A)4.B.(I)(a)].
- Zone of Initial Dilution: Not Allowed [10 CSR 20-7.031(5)(A)4.B.(I)(b)].

**RECEIVING STREAM MONITORING REQUIREMENTS:**

No receiving water monitoring requirements are recommended at this time.

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

**ALTERNATIVE EVALUATIONS FOR NEW FACILITIES:**

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

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

**ANTI-BACKSLIDING:**

A provision in the Federal Regulations [CWA §303(d)(4); CWA §402(c); 40 CFR Part 122.44(I)] that requires a reissued permit to be as stringent as the previous permit with some exceptions.

- ✓ All limits in this operating permit are at least as protective as those previously established; therefore, backsliding does not apply.

**ANTIDegradation:**

In accordance with Missouri’s Water Quality Standard [10 CSR 20-7.031(2)], the Department is to document by means of Antidegradation Review that the use of a water body’s available assimilative capacity is justified. Degradation is justified by documenting the socio-economic importance of a discharging activity after determining the necessity of the discharge.

- ✓ Renewal no degradation proposed and no further review necessary.

**BENCHMARKS:**

When a permitted feature or outfall consists of only stormwater, a benchmark may be implemented at the discretion of the permit writer. Benchmarks require the facility to monitor, and if necessary, replace and update stormwater control measures. Benchmark concentrations are not effluent limitations. A benchmark is a technology-based threshold. 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 technology based effluent limitations (TBEL).

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

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

✓ Not applicable; this facility's outfall may also contain process water.

#### **BIOSOLIDS & SEWAGE SLUDGE:**

Biosolids are solid materials resulting from domestic wastewater treatment that meet federal and state criteria for beneficial uses (i.e. fertilizer). Sewage sludge is solids, semi-solids, 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 a material derived from sewage sludge. Sewage sludge does not include ash generated during the firing of sewage sludge in a sewage sludge incinerator or grit and screening generated during preliminary treatment of domestic sewage in a treatment works. Additional information regarding biosolids and sludge is located at the following web address: <http://extension.missouri.edu/main/DisplayCategory.aspx?C=74>, items WQ422 through WQ449.

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

#### **COMPLIANCE AND ENFORCEMENT:**

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

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

#### **GROUNDWATER MONITORING:**

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

✓ This facility is not required to monitor groundwater.

#### **INDUSTRIAL SLUDGE:**

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

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

#### **REASONABLE POTENTIAL ANALYSIS (RPA):**

Federal regulation [40 CFR Part 122.44(d)(1)(i)] requires effluent limitations for all pollutants that are or may be discharged at a level that will cause or have the reasonable potential to cause or contribute to an in-stream excursion above narrative or numeric water quality standard. In accordance with [40 CFR Part 122.44(d)(1)(iii)] if the permit writer determines that any give pollutant has the reasonable potential to cause, or contribute to an in-stream excursion above the WQS, the permit must contain effluent limits for that pollutant.

✓ Not applicable; a RPA was not conducted for this facility.

#### **SCHEDULE OF COMPLIANCE (SOC):**

A schedule of remedial measures included in a permit, including an enforceable sequence of interim requirements (actions, effluent limits, operations, or milestone events) leading to compliance with the Missouri Clean Water Law, its implementing regulations, and/or the terms and conditions of an operating permit. SOC's are allowed under 40 CFR 122.47 providing certain conditions are met.

✓ Not applicable; this permit does not contain a SOC.

**SPILL REPORTING:**

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

**STORMWATER POLLUTION PREVENTION PLAN (SWPPP):**

In accordance with 40 CFR 122.44(k) *Best Management Practices (BMPs)* to control or abate the discharge of pollutants when: (1) Authorized under section 304(e) of the Clean Water Act (CWA) for the control of toxic pollutants and hazardous substances from ancillary industrial activities; (2) Authorized under section 402(p) of the CWA for the control of stormwater discharges; (3) Numeric effluent limitations are infeasible; or (4) the practices are reasonably necessary to achieve effluent limitations and standards or to carry out the purposes and intent of the CWA. In accordance with the EPA's *Developing Your Stormwater Pollution Prevention Plan, A Guide for Industrial Operators*, (Document number EPA 833-B-09-002) [published by the United States Environmental Protection Agency (USEPA) in February 2009], BMPs are measures or practices used to reduce the amount of pollution entering (regarding this operating permit) waters of the state. 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.

The purpose of a SWPPP is to comply with all applicable stormwater regulations by creating an adaptive management plan to control and mitigate pollution of stormwater runoff. Developing a SWPPP provides opportunities to employ appropriate BMPs to minimize the risk of pollutants being discharged with 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 discussed in Part V above. This section is not intended to be all encompassing or restrict the use of any physical BMP or operational and maintenance procedure that will assist in pollution control. Additional steps or revisions to the SWPPP may be required to meet the requirements of the permit. Additional information can be found in EPA's *Developing Your Stormwater Pollution Prevention Plan, A Guide for Industrial Operators*, (Document number EPA 833-B-09-002) [published by the United States Environmental Protection Agency (USEPA) in February 2009].

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 that have been 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.

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

- ✓ Applicable; a SWPPP shall be developed and implemented for each area and shall incorporate required practices identified by the Department with jurisdiction, incorporate erosion control practices specific to site conditions, and provide for maintenance and adherence to the plan.

**VARIANCE:**

As 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 operating permit is not drafted under premises of a petition for variance.

**WASTELOAD ALLOCATIONS (WLA) FOR LIMITS:**

As per [10 CSR 20-2.010(78)], the WLA is the amount of pollutant each discharger is allowed to release into a given stream after the department has determined total amount of pollutant that may be discharged into that stream without endangering its water quality.

- ✓ Applicable; wasteload allocations were calculated where relevant using water quality criteria or water quality model results and by applying the dilution equation below:

$$C = \frac{(C_s \times Q_s) + (C_e \times Q_e)}{(Q_e + Q_s)} \quad (\text{EPA/505/2-90-001, Section 4.5.5})$$

Where C = downstream concentration  
Cs = upstream concentration  
Qs = upstream flow  
Ce = effluent concentration  
Qe = effluent flow

- Chronic wasteload allocations were determined using applicable chronic water quality criteria (CCC: criteria continuous concentration) and stream volume of flow at the edge of the mixing zone (MZ).
- Acute wasteload allocations were determined using applicable water quality criteria (CMC: criteria maximum concentration) and stream volume of flow at the edge of the zone of initial dilution (ZID).
- Water quality based maximum daily and average monthly effluent limitations were calculated using methods and procedures outlined in USEPA's *Technical Support Document For Water Quality-based Toxics Control* or TSD EPA/505/2-90-001; March 1991.
- Number of Samples "n": In accordance with the TSD for water quality-based permitting, effluent quality is determined by the underlying distribution of daily values, which is determined by the Long Term Average (LTA) associated with a particular Wasteload Allocation (WLA) and by the Coefficient of Variation (CV) of the effluent concentrations. Increasing or decreasing the monitoring frequency does not affect this underlying distribution or treatment performance which should be, at a minimum, targeted to comply with the values dictated by the WLA. Therefore, it is recommended that the actual planned frequency of monitoring normally be used to determine the value of "n" for calculating the AML. However, in situations where monitoring frequency is once per month or less, a higher value for "n" must be assumed for AML derivation purposes. Thus, the statistical procedure being employed using an assumed number of samples is "n = 4" at a minimum. For Total Ammonia as Nitrogen, "n = 30" is used.

**WLA MODELING:**

There are two general types of effluent limitations, technology-based effluent limits (TBELs) and water quality based effluent limits (WQBELs). If TBELs do not provide adequate protection for the receiving waters, then WQBEL must be used.

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

**WATER QUALITY STANDARDS:**

Per [10 CSR 20-7.031(4)], general criteria shall be applicable to all waters of the state at all times including mixing zones.

Additionally, [40 CFR 122.44(d)(1)] directs the Department to establish in each NPDES permit to include conditions to achieve water quality established under Section 303 of the Clean Water Act, including State narrative criteria for water quality.

**WHOLE EFFLUENT TOXICITY (WET) TEST:**

A WET test is a quantifiable method of determining if a discharge from a facility may be causing toxicity to aquatic life by itself, in combination with or through synergistic responses when mixed with receiving stream water.

- ✓ Not applicable; at this time, the permittee is not required to conduct WET test for this facility. The facility rarely discharges potable water; the only parameter of concern is total residual chlorine and the facility is monitoring for this parameter.

**Part IV. EFFLUENT LIMITS DETERMINATION**

**OUTFALL #001 – MAIN FACILITY OUTFALL- PRIMARILY STORMWATER; OCCASIONALLY COOLING TOWER WATER**

Effluent limitations derived and established in the below table are based on current operations of the facility. Future permit action due to facility modification may contain new operating permit terms and conditions that supersede the terms and conditions, including effluent limitations, of this operating permit.

PARAMETERS	UNIT	BASIS	DAILY MAXIMUM LIMIT	MONTHLY AVERAGE	PREVIOUS PERMIT LIMITS	MINIMUM SAMPLING FREQUENCY	MINIMUM REPORTING FREQUENCY	SAMPLE TYPE
<b>PHYSICAL</b>								
FLOW	MGD	1	*	*	SAME	TWICE/YEAR	TWICE/YEAR	24 HR. TOTAL
PRECIPITATION	INCHES	6	*	n/a	SAME	TWICE/YEAR	TWICE/YEAR	24 HR. TOTAL
<b>CONVENTIONAL</b>								
OIL & GREASE	MG/L	1, 3	15	10	SAME	TWICE/YEAR	TWICE/YEAR	GRAB
pH †	SU	1, 3	6.5 TO 9.0	6.5 TO 9	SAME	TWICE/YEAR	TWICE/YEAR	GRAB
SETTLABLE SOLIDS	ML/L/HR	6	1.5	1.0	SAME	TWICE/YEAR	TWICE/YEAR	GRAB
TOTAL RESIDUAL CHLORINE	µG/L	2	*	*	NEW	CONDITIONAL	TWICE/YEAR	GRAB
TOTAL SUSPENDED SOLIDS	MG/L	1	100	50	SAME	TWICE/YEAR	TWICE/YEAR	GRAB

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

**Basis for Limitations Codes:**

1. State or Federal Regulation/Law
2. Water Quality Standard (includes RPA)
3. Water Quality Based Effluent Limits
4. Antidegradation Review/Policy
5. Water Quality Model
6. Best Professional Judgment

**EFFLUENT LIMITATION GUIDELINE:**

While there is an associated Effluent Limit Guideline (ELG) at 40 CFR 423 for the facility’s SIC code, none of the limits apply to this facility.

**DERIVATION AND DISCUSSION OF LIMITS:**

**PHYSICAL:**

**Flow**

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

**Precipitation**

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

**CONVENTIONAL:****Oil & Grease**

Conventional pollutant, in accordance with 10 CSR 20-7.031 Table A: *Criteria for Designated Uses*; **10 mg/L** monthly average (chronic standard). The daily maximum was calculated using the *Technical Support Document for Water Quality-Based Toxics Control* (EPA/505/2-90-001). Section 5.4.2 indicates the waste load allocation can be set to the chronic standard. When the chronic standard is multiplied by 1.5, the daily maximum can be calculated. Hence,  $10 * 1.5 = \mathbf{15\ mg/L}$  for the daily maximum. Continued from the previous permit.

**pH**

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

**Settleable Solids (SS)**

The first classified stream is listed on a TMDL for sediment. There is no water quality standard for SS; however, sediment discharges can negatively impact aquatic life habitat. Solids monitoring allows the permittee to identify increases in sediment and solids that may indicate uncontrolled materials leaving the site (see sections on SWPPP and BMPs). Similar facilities have permit limits of **1.5 mL/L/hour** daily maximum and **1.0 mL/L/hour** monthly average are typical and achievable. Limits were continued from the previous permit.

**Total Residual Chlorine**

The facility stated they could have an occasional discharge of the cooling tower system which would release chlorine-treated water into the stormwater settling basin. All makeup water is supplied by the city of Kansas City. The facility is not required to sample for total residual chlorine if there is no discharge of cooling tower water within the monitoring period. The facility will report “no discharge” for this parameter. Currently, Missouri’s protection of aquatic life standard for chronic exposure is 10 µg/L; acute exposure is 19 µg/L. Current analytical methods cannot detect these low numbers however, hence the most sensitive method shall be employed to monitor for this parameter according to 40 CFR 136. The method chosen should, at a minimum, determine TRC at 130 µg/L. The facility has not had limits for this parameter in the past. Monitoring is required to determine if the facility has the potential to cause or contribute to chlorine residuals in excess of the water quality standards.

**Total Suspended Solids (TSS)**

The first classified stream is listed on a TMDL for sediment. There is no water quality standard for TSS; however, sediment discharges can negatively impact aquatic life habitat. TSS is also a valuable indicator parameter. TSS monitoring allows the permittee to identify increases in TSS that may indicate uncontrolled materials leaving the site. The first classified stream is Big Creek, the TMDL for this creek indicates sediments are an issue and the aquatic life beneficial use is inhibited. The effluent limitation guideline for this facility has TSS limits for low volume waste and metal cleaning wastes. The daily maximum is 100 mg/L and the monthly average is 30 mg/L however, solids are sent to the on-site treatment for removal and are not discharged to waters of the state. The previous permit had **100 mg/L** daily maximum and **50 mg/L** for the monthly average; these values have been reassessed and determined they remain protective of the receiving water’s quality from stormwater.

**OUTFALL #003 – DOMESTIC WASTEWATER**

Effluent limitations derived and established in the below Effluent Limitations Table are based on current operations of the facility. Future permit action due to facility modification may contain new operating permit terms and conditions that supersede the terms and conditions, including effluent limitations, of this operating permit.

**EFFLUENT LIMITATIONS TABLE:**

PARAMETERS OUTFALL #003	UNIT	BASIS FOR LIMITS	DAILY MAX	MONTHLY AVG	PREVIOUS PERMIT LIMITS	MINIMUM SAMPLING FREQUENCY	MINIMUM REPORTING FREQUENCY	SAMPLE TYPE
<b>PHYSICAL</b>								
FLOW	MGD	1	*	-	NEW	NOTE A	NOTE B	24 HR. TOT
<b>CONVENTIONAL</b>								
BOD <sub>5</sub>	MG/L	1	*	-	NEW	NOTE A	NOTE B	GRAB
CHLORINE, TOTAL RESIDUAL	µg/L	1	*	-	NEW	NOTE A	NOTE B	GRAB
<i>E. COLI</i> (CFU/100ML)	‡	1	*	-	NEW	NOTE A	NOTE B	GRAB
pH †	SU	1	6.5 TO 9.0	-	NEW	NOTE A	NOTE B	GRAB
TSS	MG/L	1	*	-	NEW	NOTE A	NOTE B	GRAB
<b>NUTRIENTS</b>								
AMMONIA AS N	MG/L	1	*	-	NEW	NOTE A	NOTE B	GRAB

\* - Monitoring requirement only

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

‡ # of colonies/100mL; the Monthly Average for *E. coli* is a geometric mean.

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

Note A = the facility is only required to sample when discharging.

Note B = the facility has 60 days from discharge to submit results to the department

**Basis for Limitations Codes:**

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

**DERIVATION AND DISCUSSION OF LIMITS:**

The facility has a domestic wastewater treatment system in place which is designed not to discharge. Sampling is unscheduled; the facility only needs to sample and report discharges to the department. The facility does not need to report “no discharge” monthly.

**PHYSICAL:**

**Flow**

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

**CONVENTIONAL:**

**Biochemical Oxygen Demand (BOD<sub>5</sub>)**

Monitoring required when discharging.

**Chlorine, Total Residual (TRC)**

Monitoring required when discharging.

**Escherichia coli (E. coli)**

Monitoring required when discharging.

**pH**

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

**Total Suspended Solids (TSS)**

Monitoring required when discharging.

**NUTRIENTS:**

**Ammonia, Total as Nitrogen**

Monitoring required when discharging.

**Part V. SAMPLING AND REPORTING REQUIREMENTS:**

Refer to each outfall's derivation and discussion of limits section to review individual sampling and reporting frequencies and sampling type.

**ELECTRONIC DISCHARGE MONITORING REPORTING:**

Due to upcoming federal regulations, all facilities will need to begin submitting their discharge monitoring reports electronically, called the eDMR system. To begin the process, please visit <http://dnr.mo.gov/env/wpp/edmr.htm>. This process is expected to save time, lessen paperwork, and reduce operating costs for both the facilities and the water protection program. Additional information may also be found at <http://dnr.mo.gov/pubs/pub2474.pdf>.

**SAMPLING FREQUENCY JUSTIFICATION:**

Sampling and reporting frequency was generally retained from previous permit. The first classified stream, Big Creek is associated with a TMDL for sediments. This permit retains twice-yearly sampling of discharges. Sampling frequency for stormwater-only outfalls is typically quarterly (or less) even though BMP inspection occurs monthly. The facility may sample more frequently if they need additional data to determine if their best management technology is performing as expected. 40 CFR 122.45(d)(1) indicates all continuous discharges shall be permitted with daily maximum and monthly average limits.

**SAMPLING TYPE JUSTIFICATION:**

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

## **Part VI. ADMINISTRATIVE REQUIREMENTS**

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

### **PERMIT SYNCHRONIZATION:**

The Department of Natural Resources is currently undergoing a synchronization process for operating permits. Permits are normally issued on a five-year term, but to achieve synchronization many permits will need to be issued for less than the full five years allowed by regulation. The intent is that all permits within a watershed will move through the Watershed Based Management (WBM) cycle together will all expire in the same fiscal year. <http://dnr.mo.gov/env/wpp/cpp/docs/watershed-based-management.pdf>. This will allow further streamlining by placing multiple permits within a smaller geographic area on public notice simultaneously, thereby reducing repeated administrative efforts. This will also allow the department to explore a watershed based permitting effort at some point in the future. Renewal applications must continue to be submitted within 180 days of expiration, however, in instances where effluent data from the previous renewal is less than three years old, that data may be re-submitted to meet the requirements of the renewal application. If the permit provides a schedule of compliance for meeting new water quality based effluent limits beyond the expiration date of the permit, the time remaining in the schedule of compliance will be allotted in the renewed permit. *This permit will become synchronized by expiring end of the third quarter, 2020.*

### **PUBLIC NOTICE:**

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

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

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

The Public Notice period for this operating permit was from 3/18/2016 to 4/18/2016. No comments were received. Typographical errors were noted on Table A-1 and A-2. Total residual chlorine units were changed on Table A-1 from mg/L to µg/L. Table A-2: Total residual chlorine units were changed from SU to µg/L; pH units were changed from mg/L to SU; and E. coli from CFU per 100 mL to #/100mL. Table on page 9; total residual chlorine units changed from mg/L to µg/L.

**DATE OF FACT SHEET:** APRIL 22, 2016

### **COMPLETED BY:**

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



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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MISSOURI CLEAN WATER COMMISSION  
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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 28<sup>th</sup> 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



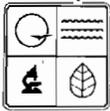
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REVISED  
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- imposed in a pretreatment program approved under section 402(a)(3) or 402(b)(8) of the Act, is subject to criminal penalties of \$2,500 to \$25,000 per day of violation, or imprisonment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



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



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

RECEIVED

FOR AGENCY USE ONLY	
CHECK NUMBER	003101
DATE RECEIVED	11-13-14
FEE SUBMITTED	2,350.00

NOV 20 2014  
 AP 20 14

Note ▶ PLEASE READ THE ACCOMPANYING INSTRUCTIONS BEFORE COMPLETING THIS FORM. 11/24/14

1. This application is for:

- An operating permit and antidegradation review public notice
- A construction permit following an appropriate operating permit and antidegradation review public notice
- A construction permit and concurrent operating permit and antidegradation review public notice
- A construction permit (submitted before Aug. 30, 2008 or antidegradation review is not required)
- An operating permit for a new or unpermitted facility Construction Permit # \_\_\_\_\_
- An operating permit renewal: permit # MO- 0124940 Expiration Date May 11, 2015
- An operating permit modification: permit # MO- \_\_\_\_\_ Reason: \_\_\_\_\_

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

**2. FACILITY**

NAME Dogwood Energy Facility		TELEPHONE WITH AREA CODE (816) 540-6500	
ADDRESS (PHYSICAL) 25111 E 175th Street, PO Box 110		FAX (816) 540-6555	
CITY Pleasant Hill	STATE MO	ZIP CODE 64080	

**3. OWNER**

NAME Dogwood Power Management, LLC		E-MAIL ADDRESS	TELEPHONE WITH AREA CODE (443) 542-5124	
ADDRESS (MAILING) 6700 Alexander Bell Drive, Suite 360		FAX (410) 872-9460		
CITY Columbia	STATE MD	ZIP CODE 21046		

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

**4. CONTINUING AUTHORITY**

NAME Dogwood Power Management, LLC		TELEPHONE WITH AREA CODE (443) 542-5124		
ADDRESS (MAILING) 6700 Alexander Bell Drive, Suite 360		FAX (410) 872-9460		
CITY Columbia	STATE MD	ZIP CODE 21046		

**5. OPERATOR**

NAME NAES Corporation		CERTIFICATE NUMBER Not Applicable	TELEPHONE WITH AREA CODE (816) 540-6500	
ADDRESS (MAILING) 25111 E 175th Street, PO Box 110		FAX (819) 540-6555		
CITY Pleasant Hill	STATE MO	ZIP CODE 64080		

**6. FACILITY CONTACT**

NAME Rob Mallett		TITLE Compliance Manager	TELEPHONE WITH AREA CODE (816) 540-6502	
		FAX (816) 540-6555		

**7. ADDITIONAL FACILITY INFORMATION**

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

001 SE 1/4 SW 1/4 Sec 13 T 46N R 31W Cass County  
 UTM Coordinates Easting (X): 15S387166.84E Northing (Y): 4294610.86mN  
 For Universal Transverse Mercator (UTM), Zone 15 North referenced to North American Datum 1983 (NAD83)

002 SE 1/4 SW 1/4 Sec 13 T 46N R 31W Cass County  
 UTM Coordinates Easting (X): 15S386946.08E Northing (Y): 4294793.46mN

003 \_\_\_\_\_ 1/4 \_\_\_\_\_ 1/4 Sec \_\_\_\_\_ T \_\_\_\_\_ R \_\_\_\_\_ County  
 UTM Coordinates Easting (X): \_\_\_\_\_ Northing (Y): \_\_\_\_\_

004 \_\_\_\_\_ 1/4 \_\_\_\_\_ 1/4 Sec \_\_\_\_\_ T \_\_\_\_\_ R \_\_\_\_\_ County  
 UTM Coordinates Easting (X): \_\_\_\_\_ Northing (Y): \_\_\_\_\_

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

001 – SIC 4911 and NAICS 221112      002 – SIC 4911 and NAICS 221112  
 003 – SIC \_\_\_\_\_ and NAICS \_\_\_\_\_      004 – SIC \_\_\_\_\_ and NAICS \_\_\_\_\_

KC  
 Cass

RECEIVED

11/11/2014

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

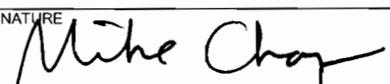
WATER PROTECTION PROGRAM

- A. Is your facility a manufacturing, commercial, mining or silviculture waste treatment facility? YES  NO   
If yes, complete Form C (unless storm water only, then complete U.S. Environmental Protection Agency Form 2F per Item C below).
- B. Is your facility considered a "Primary Industry" under EPA guidelines: YES  NO   
If yes, complete Forms C and D.
- C. Is application for storm water discharges only? YES  NO   
If yes, complete EPA Form 2F.
- D. Attach a map showing all outfalls and the receiving stream at 1" = 2,000' scale.
- E. Is wastewater land applied? If yes, complete Form I. YES  NO
- F. Is sludge, biosolids, ash or residuals generated, treated, stored or land applied? YES  NO   
If yes, complete Form R.

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

NAME Richard and Susan Ingels			
ADDRESS 25907 E.175th Street	CITY Pleasant Hill	STATE MO	ZIP CODE 64080

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

NAME AND OFFICIAL TITLE (TYPE OR PRINT) Mike Chapman - President	TELEPHONE WITH AREA CODE (443) 542-5124
SIGNATURE 	DATE SIGNED 11/11/2014

MO 740-1479 (01-09)

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

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

HAVE YOU INCLUDED:

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





Continued from the Front

**IV. Narrative Description of Pollutant Sources**

A. For each outfall, provide an estimate of the area (include units) of impervious surfaces (including paved areas and building roofs) drained to the outfall, and an estimate of the total surface area drained by the outfall.

Outfall Number	Area of Impervious Surface (provide units)	Total Area Drained (provide units)	Outfall Number	Area of Impervious Surface (provide units)	Total Area Drained (provide units)
001	3.78 Acres	14.7 Acres			
002	.45 Acres	5.78 Acres			

B. Provide a narrative description of significant materials that are currently or in the past three years have been treated, stored or disposed in a manner to allow exposure to storm water; method of treatment, storage, or disposal; past and present materials management practices employed to minimize contact by these materials with storm water runoff; materials loading and access areas, and the location, manner, and frequency in which pesticides, herbicides, soil conditioners, and fertilizers are applied.

- 1) Anhydrous Ammonia - Max Storage = 18,190 gal / Containment Volume = 23,375 gal; Containment is inspected for leaks before draining
- 2) Sulfuric Acid - Max Storage = 7,151 gal / Containment Volume = 9,948 gal; Containment is inspected for leaks before draining
- 3) Sodium Hypochlorite - Max Storage = 7,500 gal / Containment Volume = 8,032 gal; Containment is inspected for leaks before draining
- 4) Herbicides are applied to the facility on an annual basis

C. For each outfall, provide the location and a description of existing structural and nonstructural control measures to reduce pollutants in storm water runoff; and a description of the treatment the storm water receives, including the schedule and type of maintenance for control and treatment measures and the ultimate disposal of any solid or fluid wastes other than by discharge.

Outfall Number	Treatment	List Codes from Table 2F-1
001	Sedimentation, Implementation of BMP's from SWPPP	
002	Sedimentation, Implementation of BMP's from SWPPP	

**V. Nonstormwater Discharges**

A. I certify under penalty of law that the outfall(s) covered by this application have been tested or evaluated for the presence of nonstormwater discharges, and that all nonstormwater discharged from these outfall(s) are identified in either an accompanying Form 2C or Form 2E application for the outfall.

Name and Official Title (type or print)	Signature	Date Signed
Mike Chapman- President		11/11/14

B. Provide a description of the method used, the date of any testing, and the onsite drainage points that were directly observed during a test.

Only stormwater is being discharged from outfall #001 and #002 based on plant design and construction.

**VI. Significant Leaks or Spills**

Provide existing information regarding the history of significant leaks or spills of toxic or hazardous pollutants at the facility in the last three years, including the approximate date and location of the spill or leak, and the type and amount of material released.

There is no history of significant leaks or spills of toxic or hazardous pollutants at the facility in the past three years.

## Continued from Page 2

**VII. Discharge Information**

A, B, C, & D: See instructions before proceeding. Complete one set of tables for each outfall. Annotate the outfall number in the space provided.  
Table VII-A, VII-B, VII-C are included on separate sheets numbers VII-1 and VII-2.

E. Potential discharges not covered by analysis – is any toxic pollutant listed in table 2F-2, 2F-3, or 2F-4, a substance or a component of a substance which you currently use or manufacture as an intermediate or final product or byproduct?

Yes (list all such pollutants below)

No (go to Section IX)

**VIII. 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 a receiving water in relation to your discharge within the last 3 years?

Yes (list all such pollutants below)

No (go to Section IX)

**IX. Contract Analysis Information**

Were any of the analyses reported in Item VII 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 Section X)

A. Name	B. Address	C. Area Code & Phone No.	D. Pollutants Analyzed
Pace Analytical	9608 Loiret Blvd	(913) 599-5665	All polutants reported in Item VII

**X. Certification**

I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for knowing violations.

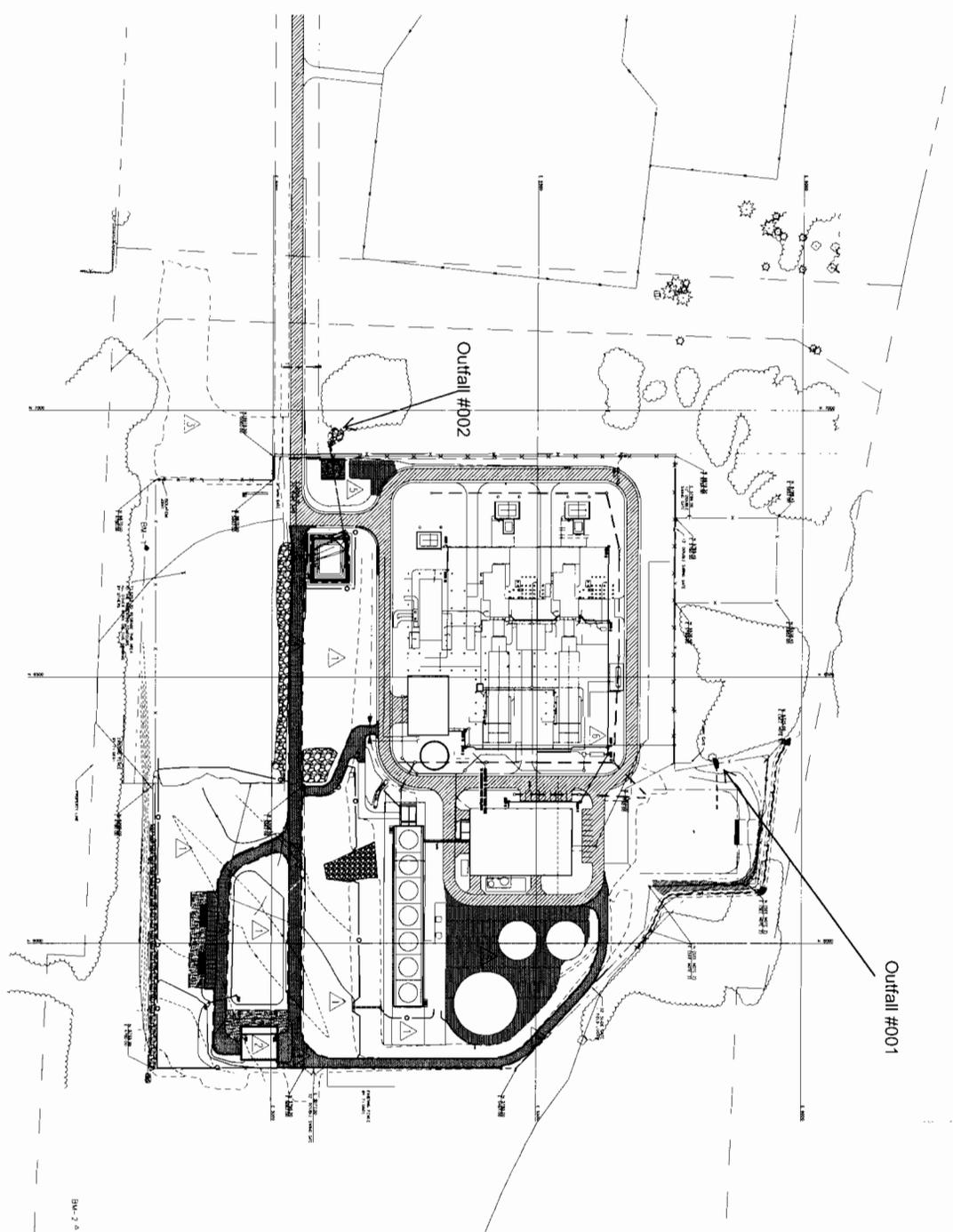
A. Name & Official Title (Type Or Print) Mike Chapaman - President	B. Area Code and Phone No. (443) 542-5124
C. Signature 	D. Date Signed 11/11/2014









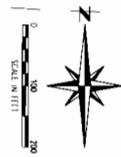


**SCORE AREAS NOTES:**

- ▲ REMOVE AND SAVE/REUSE APPROPRIATE SURFACES
- ▲ CONSTRUCTION OF PRE-ENGINEERED METAL BUILDING AND FOOTINGS
- ▲ STOCKPILE AREA FOR SALVAGED APPROPRIATE SURFACING
- ▲ REPAIR/PAINT
- ▲ REMOVE LOW AREAS WITH SALVAGED APPROPRIATE AS DIRECTED BY OWNER/ENGINEER
- ▲ REPLACEMENT OF OILY WASTE MANHOLES (OWM)

**NOTES:**

1. THE CONTENT OF THESE PLANS INCLUDES COMPLETED INFORMATION FROM VARIOUS SOURCES: BOUNDARY, BENCHMARK, SITE LAYOUT, EROSION AND OTHER INFORMATION SHOWN BY THESE PLANS IS THE PROPERTY OF THE ENGINEER. THE INFORMATION PROVIDED BY GEOLOGICAL ENGINEERS, SURVEYORS, AND VISUALLY FIELD VERIFIED FOR GENERAL CORRECTNESS, BUT NOT NECESSARILY FOR PROPOSED DESIGN WORK. KRECH OIARD & ASSOCIATES ASSUMES NO RESPONSIBILITY FOR THE ACCURACY OF THE INFORMATION PROVIDED BY GEOLOGICAL ENGINEER, ALSO RESPONSIBILITY OF THE FOLLOWING OWNER/ENGINEER CONTRACTOR RESPONSIBILITIES
2. OWNER/CONTRACTOR RESPONSIBILITIES
  - TO LOCATE ALL UTILITIES IN PROJECT AREA BEFORE CONSTRUCTION
  - TO VERIFY LOCATION AND DEPTH OF UTILITIES SHOWN ON PLANS
  - COORDINATE ANY REQUIRED RELOCATION OR EXTENSION OF UTILITIES
  - CONSTRUCTOR TO VERIFY ALL REQUIRED PERMITS PRIOR TO COMMENCEMENT OF CONSTRUCTION
  - CONTRACTOR SHALL FIELD VERIFY ALL DIMENSIONS SHOWN ON THESE PLANS AND SHALL REPORT ANY DISCREPANCIES TO THE ENGINEER PRIOR TO COMMENCING ANY RELATED WORK
  - CONTRACTOR SHALL REPORT ANY DISCREPANCIES BETWEEN FIELD AND PLAN SHOWN CONDITIONS TO ENGINEER PRIOR TO COMMENCING ANY RELATED WORK



<p><b>C1.0</b></p>	<p>DATE: 11/09/16</p>	<p>REV: 1</p>	<p>DESCRIPTION: REVISION SET</p>	<p>REV. BY: JLG</p>
	<p>OWNER: DOGWOOD ENERGY FACILITY LLC                  PROJECT: Proposed Site Upgrades, Pre-engineered Storage Building &amp; Concrete Slab Design                  Location: Pleasant Hill, Missouri</p>			

**KRECH OIARD** Engineers & Architects

MANASSAS, VA

MAIN OFFICE 2200 LITTLE PATENT RD. STE. 200 FALLS CHURCH, VA 22044 TEL: 703-760-1100 FAX: 703-760-1101 WWW.KRECH-OIARD.COM	REGIONAL OFFICE 560 DIXON ROAD, SUITE 200 PLEASANT HILL, MISSOURI 64081 TEL: 660-222-2222 FAX: 660-222-2223
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**PRELIMINARY  
NOT FOR CONSTRUCTION**



*Energy People Making Energy Facilities Work – Better*

**Dogwood Energy Facility**

25111 East 175<sup>th</sup> Street  
P.O. Box 110  
Pleasant Hill, MO 64080  
(816) 540-6500 FAX (816) 540-6555

November 11, 2014

Missouri Department of Natural Resources  
Water Pollution Control Branch  
500 N. E. Colbern Road  
Lees Summit, MO. 64086-4710  
Attention: Permit Section

Subject: Dogwood Energy Facility  
NPDES Permit Number: MO-0124940  
NPDES General Stormwater Permit Renewal Application

Dear Permit Section:

Dogwood Energy Facility (Dogwood) is submitting the subject application forms and supporting data for renewal of Dogwood's NPDES General Stormwater Permit:

- NPDES Form A
- NPDES Form 2F

As you review the application forms I would like to highlight the following:

- In Form A "An operating permit renewal" was selected.
- Form 2F was selected for both outfalls since discharges are of Storm Water only.
- All analytical results for both outfalls are in compliance for all monitoring requirements in the current permit.

As discussed in our meeting with Amanda Sappington on September 23, 2014, Dogwood is requesting that MDNR remove the monitoring requirements from Outfall #002, because the stormwater runoff is from a non-process area of the plant

In addition to the above information, please find attached a check in the amount of \$2,350.00 to cover our permit renewal fee, (Site-Specific Stormwater Discharges of flows

greater than 1 MGD). If you have any questions or concerns, please feel free to contact me at 816-540-6502 or at [rmallett@kelsonmo.com](mailto:rmallett@kelsonmo.com).

Sincerely,



Robert E Mallett  
Compliance Manager  
Dogwood Energy Facility, LLC

CC: F. Schneider/Kelson  
P. Berner/NAES