

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-0115631

Owner: The Kansas City Southern Railway Company  
Address: PO Box 219335, Kansas City, MO 64120

Continuing Authority: Same as above  
Address: Same as above

Facility Name: KCSRC Neosho Yard Mechanical Facility  
Facility Address: 211 East Coler, Neosho, MO 64850

Legal Description: NE¼, SW¼, Sec. 19, T25N, R31W, Newton County  
UTM Coordinates: X= 378267, Y= 4081559

Receiving Stream: Unnamed tributary to Hickory Creek (U)  
First Classified Stream and ID: Hickory Creek (P) (3226) 303(d) List  
USGS Basin & Sub-watershed No.: 11070207-0802

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

**FACILITY DESCRIPTION**

Outfall #002 – Industrial stormwater associated with storage of railway freights cars and freight car maintenance parts – SIC #4011 Stormwater discharge only. This permit does not authorize the discharge of any industrial process or domestic wastewater. Actual flow dependent upon rainfall.

Outfall #001 & #003 – Eliminated prior to July 11, 2008. No further industrial activities or stormwater associated with industrial activities discharging at these outfalls.

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

April 1, 2014  
Effective Date

Sara Parker Pauley, Director, Department of Natural Resources

March 31, 2018  
Expiration Date

John Madras, Director, Water Protection Program

<b>OUTFALL #002</b>	<b>TABLE A. FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS</b>	PAGE NUMBER 2 of 5
		PERMIT NUMBER MO-0115631

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 **April 1, 2014**, and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:

EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
Flow	MGD	*			once/quarter****	24 hr. estimate
Chemical Oxygen Demand <sub>5</sub> ***	mg/L	*			once/quarter****	grab
Settleable Solids***	mL/L/hr	*			once/quarter****	grab
pH – Units	SU	**			once/quarter****	grab
Oil & Grease	mg/L	15			once/quarter****	grab
Total Petroleum Hydrocarbon – Diesel Range Organics (TPH – DRO)***	mg/L	*			once/quarter****	grab
Total Petroleum Hydrocarbon – Gasoline Range Organics (TPH – GRO)***	mg/L	*			once/quarter****	grab
Total Petroleum Hydrocarbon – Oil Range Organics (TPH – ORO)***	mg/L	*			once/quarter****	grab
Polynuclear Aromatic Hydrocarbons (PAHs)	µg/L	*			once/quarter****	grab
Iron, Total Recoverable	µg/L	*			once/quarter****	grab

MONITORING REPORTS SHALL BE SUBMITTED QUARTERLY; THE FIRST REPORT IS DUE JULY 28, 2014. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

- \* Monitoring requirement only.
- \*\* pH is measured in pH units and is not to be averaged. The pH is limited to the range of 6.5-9.0 pH units.
- \*\*\* See Special Condition #13 for Benchmark requirements.
- \*\*\*\* All samples shall be collected from a discharge resulting from a precipitation event greater than 0.1 inches in magnitude and that occurs at least 72 hours from the previously measurable precipitation event. If a precipitation event does not occur within the reporting period, report as **no discharge**. See table below for quarterly sampling.

Minimum Sampling Requirements			
Quarter	Months	Effluent Parameters	Report is Due
First	January, February, March	Sample at least once during any month of the quarter	April 28 <sup>th</sup>
Second	April, May, June	Sample at least once during any month of the quarter	July 28 <sup>th</sup>
Third	July, August, September	Sample at least once during any month of the quarter	October 28 <sup>th</sup>
Fourth	October, November, December	Sample at least once during any month of the quarter	January 28 <sup>th</sup>

## B. STANDARD CONDITIONS

In addition to specified conditions stated herein, this permit is subject to the attached Part I standard conditions dated November 1, 2013, and hereby incorporated as though fully set forth herein.

## C. SPECIAL CONDITIONS

1. This permit may be reopened and modified, or alternatively revoked and reissued, to:
  - (a) Comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a) (2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:
    - (1) contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
    - (2) controls any pollutant not limited in the permit.
  - (b) Incorporate new or modified effluent limitations or other conditions, if the result of a waste load allocation study, toxicity test or other information indicates changes are necessary to assure compliance with Missouri's Water Quality Standards.
  - (c) Incorporate new or modified effluent limitations or other conditions if, as the result of a watershed analysis, a Total Maximum Daily Load (TMDL) limitation is developed for the receiving waters which are currently included in Missouri's list of waters of the state not fully achieving the state's water quality standards, also called the 303(d) list.

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

2. All outfalls must be clearly marked in the field.
3. 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.
4. Changes in Discharges of Toxic Substances  
The permittee shall notify the Director as soon as it knows or has reason to believe:
  - (a) That any activity has occurred or will occur which would result in the discharge of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels:"
    - (1) One hundred micrograms per liter (100 µg/L);
    - (2) Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2,5 dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
    - (3) Five (5) times the maximum concentration value reported for the pollutant in the permit application;
    - (4) The level established by the Director in accordance with 40 CFR 122.44(f).
  - (b) That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant, which was not reported in the permit application.
5. Report as no-discharge when a discharge does not occur during the report period.

**B. STANDARD CONDITIONS** (continued)

6. It is a violation of the Missouri Clean Water Law to fail to pay fees associated with this permit (644.055 RSMo).
7. 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.
8. 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.
  - (b) The SWPPP must include a schedule for once per month site inspections and brief written reports. The inspections must include observation and evaluation 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. Any corrective measure that necessitates major construction may also need a construction permit. 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.
9. Permittee shall adhere to the following minimum Best Management Practices (BMPs):
    - (a) Prevent the spillage or loss of fluids, oil, grease, fuel, etc. from vehicle maintenance, equipment cleaning, or warehouse activities and thereby prevent the contamination of storm water 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 storm water or provide other prescribed BMPs such as plastic lids and/or portable spill pans to prevent the commingling of storm water 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.
  10. 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.
  11. Before releasing water that has accumulated in secondary containment areas it must be examined for hydrocarbon odor and presence of a sheen. If the presence of hydrocarbons is indicated, this water must be tested for Total Petroleum Hydrocarbons (TPH). The suggested analytical method for testing TPH is non-Halogenated Organic by Gas Chromatography method 8015 (also known as OA1 and OA2). However, if the permittee so desires to use other approved testing methods (i.e. EPA 1664), they may do so. If the concentration for TPH exceeds 10mg/L, the water shall be taken to a WWTP for treatment.
  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.

**B. STANDARD CONDITIONS** (continued)

13. The following Benchmark Values are considered necessary to protect existing water quality and should not be exceeded during discharges resulting from a precipitation event exceeding 0.1 inches during a 24 hour period. The BMPs at the facility should be designed to meet this value during rainfall events up to the 10 year, 24 hour rain event. The benchmark does not constitute numeric effluent limitations. **A benchmark exceedance alone, therefore, is not a permit violation.** If a sample exceeds a benchmark concentration a review of the facilities SWPPP and BMPs shall take place to determine whether any improvement or additional controls are needed to reduce that pollutant in the storm water discharge. The facility may demonstrate via a Corrective Action Report that the benchmark value cannot be achieved through the application of BMPs representing the available technology and the benchmark is not feasible because no further pollutant reductions are technologically available and economically practicable and achievable in light of best industry practice. Upon concurrence with a Corrective Action report by the Department, the facility may return to normal quarterly reporting. This evaluation must be kept on file with the SWPPP. Failure to evaluate and improve BMPs to address a benchmark value exceedance is a permit violation.

**BENCHMARK TABLE: OUTFALL #002**

<b>Parameter</b>	<b>Benchmark</b>
Chemical Oxygen Demand	120 mg/L
Settleable Solids	1.5 mL/L/hr
Total Petroleum Hydrocarbon – DRO	10 mg/L
Total Petroleum Hydrocarbon – GRO	10 mg/L
Total Petroleum Hydrocarbon – ORO	10 mg/L

**Missouri Department of Natural Resources**  
**FACT SHEET**  
**FOR THE PURPOSE OF RENEWAL**  
**OF**  
**MO-0115631**  
**KANSAS CITY SOUTHERN RAILWAY COMPANY –**  
**NEOSHO YARD MECHANICAL 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 storm water 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.

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 (operating permit) listed below.

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

This Factsheet is for an Industrial Facility.

**Part I – Facility Information**

Facility Type: Industrial  
Facility SIC Code(s): 4011

Facility Description:

Outfall #002 – Industrial stormwater associated with storage of railway freights cars and freight car maintenance parts – SIC #4011

Facility stores railway freight cars and engineering Department parts for maintenance and repair of railway freight cars, including wheels, brake valves, brake shoes and occasionally lube oil. A 300 gallon above ground diesel storage tank used to refuel the auxiliary fuel tanks installed in the beds of pickup trucks. Additionally, there is a small office on-site where vehicles will park periodically.

Stormwater discharge only.

Actual flow dependent upon rainfall.

Outfall #001 & #003 – Eliminated prior to July 11, 2008. No further industrial activities or stormwater associated with industrial activities discharging at these outfalls.

Have any changes occurred at this facility or in the receiving water body that effects effluent limit derivation?

- No.

Application Date: 02/15/2013

Expiration Date: 07/10/2013

Last Inspection: 06/11/2013 In Compliance ; Non-Compliance

**OUTFALL(S) TABLE:**

OUTFALL	DESIGN FLOW (CFS)	TREATMENT LEVEL	EFFLUENT TYPE
002	Rainfall Dependent	BMPs	Industrial Stormwater

Facility Performance History & Comments:

The most recent site-inspection of the facility was conducted on June 11, 2013. This was a routine site-inspection to determine compliance with the Missouri State Operating Permit (MSOP) #MO-0115631. The facility was found to be in compliance during the time of the inspection. There were no unsatisfactory features noted in the inspection report.

**Part II – Receiving Stream Information**

Receiving Water Body’s Water Quality

There are currently no stream surveys on either the unnamed tributary to Hickory Creek (U) or Hickory Creek (P) (3226). The Hickory Creek (P) (3226) is currently on the 303(d) List of impaired waters for *E. coli* bacteria but the source of this impairment is unknown at this time. A Total Maximum Daily Load (TMDL) evaluation has not been conducted on this stream.

The Department has no other information on the receiving stream.

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

As per Missouri’s Effluent Regulations [10 CSR 20-7.015], the waters of the state are divided into the below listed seven (7) 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 [10 CSR 20-7.015(2)]:
- Lake or Reservoir [10 CSR 20-7.015(3)]:
- Lossing [10 CSR 20-7.015(4)]:
- Metropolitan No-Discharge [10 CSR 20-7.015(5)]:
- Special Stream [10 CSR 20-7.015(6)]:
- Subsurface Water [10 CSR 20-7.015(7)]:
- All Other Waters [10 CSR 20-7.015(8)]:

10 CSR 20-7.031 Missouri Water Quality Standards, the Department defines the Clean Water Commission water quality objectives in terms of "water uses to be maintained and the criteria to protect those uses." The receiving stream and 1<sup>st</sup> classified receiving stream’s beneficial water uses to be maintained are located in the Receiving Stream Table located below in accordance with [10 CSR 20-7.031(3)].

**RECEIVING STREAM(S) TABLE:**

WATERBODY NAME	CLASS	WBID	DESIGNATED USES*	DISTANCE TO CLASSIFIED SEGMENT	12-DIGIT HUC**
Unnamed tributary to Hickory Creek	U	N/A	GEN	0.17	11070207-0802
Hickory Creek	P	3226	AQL, GEN, LWW, WBC-A		

\* - Irrigation (IRR), Livestock & Wildlife Watering (LWW), Protection of Warm Water Aquatic Life and Human Health-Fish Consumption (AQL), General Criteria (GEN), Cool Water Fishery(CLF), Cold Water Fishery (CDF), Whole Body Contact Recreation (WBC), Secondary Contact Recreation (SCR), Drinking Water Supply (DWS), Industrial (IND), Groundwater (GRW). \*\* - Hydrologic Unit Code

**RECEIVING STREAM(S) LOW-FLOW VALUES TABLE:**

RECEIVING STREAM (U, C, P)	LOW-FLOW VALUES (CFS)		
	1Q10	7Q10	30Q10
Unnamed tributary to Hickory Creek (U)	0.0	0.0	0.0

**MIXING CONSIDERATIONS:**

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

**RECEIVING STREAM MONITORING REQUIREMENTS:**

No receiving water monitoring requirements 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.

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

- The permit writer has utilized Best Professional Judgment (BPJ) to establish benchmarks appropriate for stormwater discharges. There have been no changes to the industrial activities on site or to the composition of the stormwater being discharged as a result of this renewal. The benchmark concentrations and required corrective actions are protective of the applicable Technology-Based Effluent Limitations (TBELs) and water quality. Therefore, the effluent limitations have been replaced with monitoring only to ensure proper compliance with the new benchmark requirements. The permit writer believes that benchmark values are more appropriate to this type of intermittent stormwater discharge.

#### **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.

#### **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://dnr.mo.gov/env/wpp/pub/index.html>, 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.

#### **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)(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. The permit writer used Best Professional Judgment (BPJ) to make reasonable potential determinations on the parameters that should be implemented in the permit.

**SCHEDULE OF COMPLIANCE (SOC):**

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

Not Applicable; This permit does not contain a SOC.

**STORM WATER POLLUTION PREVENTION PLAN (SWPPP):**

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 storm water 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 Storm Water 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.

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

**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.

**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 amount of pollutant each discharger is allowed by the Department 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.

Not Applicable; Wasteload allocations were not calculated.

**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(3)], 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.

**303(d) LIST & TOTAL MAXIMUM DAILY LOAD (TMDL):**

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

A TMDL is a calculation of the maximum amount of a given pollutant that a body of water can absorb before its water quality is affected. If a water body is determined to be impaired as listed on the 303(d) list, then a watershed management plan will be developed that shall include the TMDL calculation

Applicable; Hickory Creek (P) (3226) is listed on the 2012 Missouri 303(d) List for *E. coli*. The source of this impairment is unknown at this time.

## Part IV – Effluent Limits Determination

### Outfall #002 – Main Facility Outfall

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.

The Clean Water Act requires that all NPDES discharges to Waters of the U.S. contain technology-based or water-quality based effluent limitations, whichever is more stringent. When the EPA has not established industry specific technology based Effluent Limitation Guidelines, Missouri uses EPA’s *Technical Support Document for Water Quality Based Toxics Control (TSD)* method for calculating site-specific water-quality based effluent limitations. The TSD method is based on assumptions and statistics that apply to continuous discharges, not intermittent stormwater discharges and thus do not apply to this permit. In this situation, it is the Department’s policy to consult the EPA’s Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity.

### Benchmarks

Benchmark concentrations are **not** effluent limitations; benchmark exceedance, therefore, is not a permit violation. Benchmark monitoring data is used to determine the overall effectiveness of control measures and to assist the permittee in knowing when additional corrective action(s) may be necessary to comply with the technology based effluent limitations (TBEL). Failure to take corrective action is a violation of the permit. Benchmark exceedance alone is not a permit violation.

It is the permit writer’s best professional judgment to require monitoring only for the parameters previously listed as effluent limitations. Based on the DMR data submitted to the Department and the nature of the discharge as stormwater, the facility does not have reasonable potential to cause impairment to the receiving stream for the following parameters: COD, Settleable Solids and TPH. Therefore, benchmarks will be placed in the permit rather than effluent limitations. The benchmarks listed in the derivation discussion below have been determined to be feasible, affordable and protective of water quality. These benchmark values are consistent with other stormwater permits including the EPA MSGP. The facility will be required to monitor for all these parameters and if the benchmarks are exceeded at all in the following permit cycle, then the permit writer will use BPJ to determine if effluent limitations will again be necessary to protect water quality.

### **EFFLUENT LIMITATIONS TABLE:**

PARAMETER	UNIT	DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MODIFIED	PREVIOUS PERMIT LIMITATIONS
FLOW	GPD	*		*	NO	*/*
COD	MG/L	120****		***	YES	120/90
SETTLEABLE SOLIDS	ML/L/HR	1.5****		***	YES	1.5/1.0
PH	SU	6.5-9.0			YES	6.5-9.0
TOTAL PETROLEUM HYDROCARBONS (TPH)	MG/L	***		***	YES	10/10
TOTAL PETROLEUM HYDROCARBONS – DIESEL RANGE ORGANICS (TPH-DRO)	MG/L	10****			YES	**
TOTAL PETROLEUM HYDROCARBONS – GASOLINE RANGE ORGANICS (TPH-GRO)	MG/L	10****			YES	**
TOTAL PETROLEUM HYDROCARBONS – OIL RANGE ORGANICS (TPH-ORO)	MG/L	10****			YES	**
OIL & GREASE (MG/L)	MG/L	15		***	YES	15/10
POLYNUCLEAR AROMATIC HYDROCARBONS	µg/L	*			YES	*/*
PHENOLICS	µg/L	*			YES	*/*
IRON, TOTAL RECOVERABLE	µg/L	*			YES	**

\* - Monitoring requirement only.

\*\* - Parameter not previously established in previous state operating permit.

\*\*\* - Parameter being removed from permit.

\*\*\*\* - Benchmarks set in the permit rather than effluent limitations.

## OUTFALL #002 – DERIVATION AND DISCUSSION OF LIMITS:

Note – For all parameters listed with benchmark requirements, please see the paragraph prior to Effluent Limitations Table above for explanation.

- **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.
- **Biochemical Oxygen Demand (BOD<sub>5</sub>)**. Due to the nature of the discharge being a majority of metals pollutants, the permittee will not be required to monitor for this pollutant. Although this pollutant was detected in the sampling required for the submittal of the application for renewal of this permit, any potential impairment with oxygen demand will be determined through the COD monitoring.
- **Chemical Oxygen Demand (COD)**. This benchmark has been established at 120 mg/L of COD.
- **Settleable Solids**. This benchmark has been established at 1.5 mL/L/hr of Settleable Solids.
- **pH**. – 6.5-9.0 SU. Technology based effluent limitations of 6.0-9.0 SU [10 CSR 20-7.015] are not protective of the Water Quality Standard, which states that water contaminants shall not cause pH to be outside the range of 6.5-9.0 SU. No mixing zone is allowed due to the classification of the receiving stream, therefore the water quality standard must be met at the outfall.
- **Total Petroleum Hydrocarbon (TPH)**. The permit writer has used BPJ to remove this parameter from the permit. The Department's ESP lab does not test for this parameter any longer. TPH has been split into more specific ranges for analysis, which has replaced this parameter. Please see TPH – Diesel Range Organics, TPH – Gasoline Range Organics and TPH – Oil Range Organics for further explanation.
- **Total Petroleum Hydrocarbon – Diesel Range Organics (TPH-DRO)**. This benchmark has been established at 10mg/L of TPH-DRO.
- **Total Petroleum Hydrocarbon – Gasoline Range Organics (TPH-GRO)**. This benchmark has been established at 10mg/L of TPH-GRO.
- **Total Petroleum Hydrocarbon – Oil Range Organics (TPH-ORO)**. This benchmark has been established at 10mg/L of TPH-ORO.
- **Oil & Grease (O&G)**. Conventional pollutant, effluent limitation for protection of aquatic life; 15 mg/L daily maximum.
- **Polynuclear Aromatic Hydrocarbons (PAHs)**. It is the permit writer's best professional judgment to continue the monitoring requirement for PAHs. PAHs are byproducts of burning oil, gas or coal. The permittee submitted sample data for 16 individual PAHs. These results indicated non-detection for all 16 pollutants with a detection level of 5.0µg/L. The receiving stream does contain a use designation of AQL but no water quality criteria exist for these parameters under AQL. However, Water Quality Standards listed in Table A of 10 CSR 20-7.031 do contain criteria under Human Health Protection – Fish Consumption (HHF) that range from 0.049µg/L to 110,000µg/L. Although AQL and HHF do not represent the same protections of the receiving stream, the similarities warrant continued monitoring to ensure these pollutants are not entering the stream in toxic amounts.
- **Total Phenols (formerly called Phenolics)**. It is the permit writer's best professional judgment to remove the monitoring requirement for Phenols. Phenols are also byproducts of petroleum products but have a different chemical makeup than PAHs. Sampling for this parameter would be duplicative and redundant because the permittee will be required to sample for PAHs and TPH is the ranges listed above. Sampling for the TPH ranges will better represent potential pollutants in the stormwater runoff. If the Department feels that more specific testing is required, the permittee will be notified to conduct such testing. If such event occurs and the Department feels that the results require this parameter be sampled individually again, then the permit writer can evaluate implementation in the following permit renewal. Additionally, the DMR data submitted to the Department show that the facility was discharging a concentration ranging from 0-50 µg/L. This is well below the Protection of Aquatic Life water quality standard of 100 µg/L listed in Table A of 10 CSR 20-7.031.

- **Iron, Total Recoverable.** It is the permit writer’s best professional judgment to add monitoring for iron to the permit. The permittee indicated that metal storage containers are located on the property as well as other parts and rail cars that could potentially rust and release iron into the environment. The permittee also noted iron as a pollutant that they know or have reason to believe discharges from the property in the permit renewal application Form C, item 3.00. The data collected from this monitoring will be used by the permit writer in the following permit renewal to determine if the facility has reasonable potential to exceed water quality standards and should be required to meet final effluent limitations for iron.

**Minimum Sampling and Reporting Frequency Requirements.**

PARAMETER	SAMPLING FREQUENCY	REPORTING FREQUENCY
FLOW	ONCE/QUARTER	ONCE/QUARTER
COD	ONCE/QUARTER	ONCE/QUARTER
SETTLABLE SOLIDS	ONCE/QUARTER	ONCE/QUARTER
pH	ONCE/QUARTER	ONCE/QUARTER
TOTAL PETROLEUM HYDROCARBONS – DIESEL RANGE ORGANICS (TPH-DRO)	ONCE/QUARTER	ONCE/QUARTER
TOTAL PETROLEUM HYDROCARBONS – GASOLINE RANGE ORGANICS (TPH-GRO)	ONCE/QUARTER	ONCE/QUARTER
TOTAL PETROLEUM HYDROCARBONS – OIL RANGE ORGANICS (TPH-ORO)	ONCE/QUARTER	ONCE/QUARTER
OIL & GREASE (MG/L)	ONCE/QUARTER	ONCE/QUARTER
POLYNUCLEAR AROMATIC HYDROCARBONS (PAHs)	ONCE/QUARTER	ONCE/QUARTER
IRON, TOTAL RECOVERABLE	ONCE/QUARTER	ONCE/QUARTER

**Sampling Frequency Justification:**

Sampling and Reporting Frequency was retained from previous permit. Due to the nature of the discharge being stormwater, sampling frequency shall be conducted during the following condition. All samples shall be collected from a discharge resulting from a precipitation event greater than 0.1 inches in magnitude and that occurs at least 72 hours from the previously measurable precipitation event. If a precipitation event does not occur within the reporting period, report as **no discharge**.

**Sampling Type Justification**

Sampling Type was retained from the previous permit. Due to the nature of the discharge being stormwater, sampling types shall be grab samples. This will provide the most representative sample during discharge events.

## **Part V– Administrative Requirements**

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

### **PERMIT SYNCHRONIZATION:**

The Department of Natural Resources is currently undergoing a synchronization process for operating permits. Permits are normally issued on a five-year term, but to achieve synchronization many permits will need to be issued for less than the full five years allowed by regulation. The intent is that all permits within a watershed will move through the Watershed Based Management (WBM) cycle together will all expire in the same fiscal year. 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.

### **PUBLIC NOTICE:**

The Department shall give public notice that a draft permit has been prepared and its issuance is pending. 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 began on February 7, 2014 and ended on March 10, 2014. No comments were received during the Public Notice period. Post Public Notice, the permit writer updated the justification for pH due to the regulatory revisions that have been made. This justification does not change the effluent limitation for pH.

**DATE OF FACT SHEET:** JANUARY 16, 2014

### **COMPLETED BY:**

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