STATE OF MISSOURI

DEPARTMENT OF NATURAL RESOURCES

MISSOURI CLEAN WATER COMMISSION

MISSOURI STATE OPERATING PERMIT

In compliance with the Missouri Clean Water Law, (Chapter 644 R.S. Mo. as amended, hereinafter, the Law), and the Federal Water Pollution Control Act (Public Law 92-500, 92nd Congress) as amended,

Permit No.	MO-0117331
Owner:	Greenfield Environmental Multistate Trust, LLC Trustee for the Multistate Environmental Response Trust
Address:	44 Shattuck Road, Watertown MA 02472
Continuing Authority:	same as above
Address:	same as above
Facility Name:	Former Tronox Facility – Springfield MO
Facility Address:	2800 High Street, Springfield MO 65801
Legal Description:	SE ¼, NE ¼, Sec. 09, T29N, R22W, Greene County
UTM Coordinates:	see page two
Receiving Stream:	see page two
First Classified Stream and ID:	see page two
USGS Basin & Sub-watershed No.:	see page two

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

FACILITY DESCRIPTION

Former wood treating facility; closed and decommissioned. The Greenfield Environmental Multistate Trust, LLC; Trustee for the Multistate Environmental Response Trust (henceforth "Multistate Trust") manages the former facility under a RCRA post-closure permit MOD007128406.

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

November 1, 2016
Effective Date

Harry D. Bozoian, Director, Department of Natural Resources

March 31, 2019
Expiration Date

John Madras, Director, Water Protection Program

FACILITY DESCRIPTION (CONTINUED)

OUTFALL #001 – STORMWATER ONLY

UTM Coordinates:	X= 470772 , Y= 4121264
Receiving Stream:	8-20-13 MUDD V1.0 (WBID # 3960) (C)
First Classified Stream and ID:	8-20-13 MUDD V1.0 (WBID # 3960) (C) Tributary to Spring Branch (Losing)
USGS Basin & Sub-watershed No.:	Flint Hill Branch-Little Sac River 10290106-0404
Design Flow:	0.403 MGD during a 6-inch precipitation event
Actual Flow:	Dependent upon precipitation

OUTFALL #002 – STORMWATER ONLY

UTM Coordinates:	X = 469974, Y = 4121137
Receiving Stream:	Tributary to Tributary to N. Br. Wilsons Creek
First Classified Stream and ID:	N. Br. Wilsons Creek (WBID # 3745) (C) (Losing)
USGS Basin & Sub-watershed No.:	Headwaters Wilsons Creek 11010002-0301
Design Flow:	0.122 MGD during a 6-inch precipitation event
Actual Flow:	Dependent upon precipitation

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

OUTFALLS #001 & #002 *Stormwater Only*	**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 **November 1, 2016** and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:

EFFLUENT PARAMETERS	UNITS	FINAL LIMITATIONS		BENCH-MARKS	MONITORING REQUIREMENTS	
		DAILY MAXIMUM	MONTHLY AVERAGE		MEASUREMENT FREQUENCY	SAMPLE TYPE
PHYSICAL						
Flow	MGD	*			once/quarter ◊	24 hr. estimate
Precipitation	inches	*			once/quarter ◊	measured
CONVENTIONAL						
Chemical Oxygen Demand	mg/L	**		90	once/quarter ◊	grab ∞
Oil & Grease	mg/L	**		10	once/quarter ◊	grab ∞
pH (Note A)	SU	6.5 to 9.0		-	once/quarter ◊	grab ∞
Settleable Solids	mL/L/hr	**		1.0	once/quarter ◊	grab ∞
Total Suspended Solids	mg/L	**		100	once/quarter ◊	grab ∞
METALS						
Arsenic, Total Recoverable	µg/L	*		-	once/quarter ◊	grab ∞
Copper, Total Recoverable	µg/L	*		-	once/quarter ◊	grab ∞
OTHER						
Acenaphthene	µg/L	2600		-	once/quarter ◊	grab ∞
Acenaphthylene	µg/L	*		-	once/quarter ◊	grab ∞
Anthracene	µg/L	*		-	once/quarter ◊	grab ∞
Benzo(a)anthracene	µg/L	*		-	once/quarter ◊	grab ∞
Benzo(a)pyrene	µg/L	*		-	once/quarter ◊	grab ∞
Benzo(k)fluoranthene	µg/L	*		-	once/quarter ◊	grab ∞
2-Chlorophenol π	µg/L	**		5	once/quarter ◊	grab ∞
Chrysene	µg/L	*		-	once/quarter ◊	grab ∞
Dibenzo(a,h)anthracene	µg/L	*		-	once/quarter ◊	grab ∞
Fluoroanthene	µg/L	*		-	once/quarter ◊	grab ∞
Fluorene	µg/L	*		-	once/quarter ◊	grab ∞
Indeno(1,2,3-cd)pyrene	µg/L	*		-	once/quarter ◊	grab ∞
Naphthalene	µg/L	*		-	once/quarter ◊	grab ∞
o-Cresol	µg/L	3000		-	once/quarter ◊	grab ∞
Phenol	µg/L	*		-	once/quarter ◊	grab ∞

MONITORING REPORTS SHALL BE SUBMITTED QUARTERLY; THE FIRST REPORT IS DUE JANUARY 28, 2017.
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.

** Monitoring requirement with associated benchmark. See Special Conditions #9 through #12

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

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

π The facility has been assigned a benchmark as the ML for this parameter in accordance with 40 CFR 122.44(i)(1)(iv)(A).

◊ Quarterly sampling

MINIMUM QUARTERLY SAMPLING REQUIREMENTS			
QUARTER	MONTHS	EFFLUENT PARAMETERS	REPORT IS DUE
First	January, February, March	Sample at least once during any month of the quarter	April 28th
Second	April, May, June	Sample at least once during any month of the quarter	July 28th
Third	July, August, September	Sample at least once during any month of the quarter	October 28th
Fourth	October, November, December	Sample at least once during any month of the quarter	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. 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. Report as no-discharge when a discharge does not occur during the report period.

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

5. 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.

C. SPECIAL CONDITIONS (CONTINUED)

6. Reporting of Non-Detects
   (a) An analysis conducted by the permittee or their contracted laboratory shall be conducted in such a way that the precision and accuracy of the analyzed result can be enumerated.
   (b) The permittee shall not report a sample result as "Non-Detect" without also reporting the detection limit of the test. Reporting as "Non-Detect" without also including the detection limit will be considered failure to report, which is a violation of this permit.
   (c) The permittee shall report the "Non-Detect" result using the less than sign and the minimum detection limit (e.g. <10).
   (d) Where the permit contains a Minimum Level (ML) and the permittee is granted authority in the permit to report zero in lieu of the < ML for a specified parameter (conventional, priority pollutants, metals, etc.), then zero (0) is to be reported for that parameter.
   (e) See Standard Conditions Part I, Section A, #4 regarding proper detection limits used for sample analysis.
   (f) When calculating monthly averages, one-half of the minimum detection limit (MDL) should be used instead of a zero. Where all data are below the MDL, the "<MDL" shall be reported as indicated in item (C).

7. 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.

8. 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).

9. 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.

C. SPECIAL CONDITIONS (CONTINUED)

10. Facility SIC codes found in 40 CFR 122.26(b)(14) and/or 10 CSR 20-6.200(2) shall implement a SWPPP and must be prepared and implemented upon permit issuance. The SWPPP must be kept on-site and should not be sent to the department unless specifically requested. The SWPPP must be reviewed and updated every five (5) years or as site conditions change (see Rationale and Derivation: antidegradation analysis and SWPPP in the fact sheet). The permittee shall select, install, use, operate, and maintain the Best Management Practices prescribed in the SWPPP in accordance with the concepts and methods described in: *Developing Your Stormwater Pollution Prevention Plan, A Guide for Industrial Operators*, (EPA 833-B-09-002) published by the EPA in February 2009 (www.epa.gov/npdes/pubs/industrial_swppp_guide.pdf). The SWPPP must include:
    (a) A listing of specific contaminants and their control measures (or BMPs) and a narrative explaining how BMPs are implemented to control and minimize the amount of contaminants potentially entering stormwater. The BMPs should be designed to treat the stormwater up to the 10 year, 24 hour rain event.
    (b) For new, altered, or expanded stormwater discharges, the SWPPP shall identify reasonable and effective BMPs while accounting for environmental impacts of varying control methods. The antidegradation analysis must document why no discharge or no exposure options are not feasible. The selection and documentation of appropriate control measures shall serve as an alternative analysis of technology and fulfill the requirements of antidegradation [10 CSR 20-7.031(3)]. Failure to implement and maintain the chosen BMP is a permit violation. For further guidance, consult the antidegradation implementation procedure at http://dnr.mo.gov/env/wpp/docs/AIP050212.pdf .
    (c) The SWPPP must include a schedule for once per month site inspections and brief written reports. The inspection report must include precipitation information for the entire period since last inspection, as well as observations and evaluations of BMP effectiveness. Throughout coverage under this permit, the facility must perform ongoing SWPPP review and revision to incorporate any site condition changes.
        i. Operational deficiencies must be corrected within seven (7) calendar days.
        ii. Minor structural deficiencies must be corrected within fourteen (14) calendar days.
        iii. Major structural deficiencies must be reported to the regional office within seven (7) days of discovery. The initial report shall consist of the deficiency noted, the proposed remedies, the interim or temporary remedies (including the general timing of the placement of the interim measures), and an estimate of the timeframe needed to wholly complete the repairs or construction. The permittee will work with the regional office to determine the best course of action, including but not limited to temporary structures to control stormwater runoff. The facility shall correct the major structural deficiency as soon as reasonably achievable.
        iv. All actions taken to correct the deficiencies shall be included with the written report, including photographs.
        v. Inspection reports must be kept on site with the SWPPP and maintained for a period of five (5) years. These must be made available to department and EPA personnel upon request.
    (d) A provision for designating an individual to be responsible for environmental matters.
    (e) A provision for providing training to all personnel involved in material handling and storage, and housekeeping of maintenance and cleaning areas. Proof of training shall be submitted on request of the department.

11. This permit stipulates pollutant benchmarks applicable to your discharge. The benchmarks do not constitute direct numeric effluent limitations; therefore, a benchmark exceedance alone is not a permit violation. Benchmark monitoring and visual inspections shall be used to determine the overall effectiveness of SWPPP and to assist you in knowing when additional corrective action may be necessary to protect water quality. If a sample exceeds a benchmark concentration you must review your SWPPP and your BMPs to determine what improvements or additional controls are needed to reduce that pollutant in your stormwater discharge(s).

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

C. SPECIAL CONDITIONS (CONTINUED)

12. Permittee shall adhere to the following minimum Best Management Practices (BMPs):
    (a) Prevent the spillage or loss of fluids, oil, grease, fuel, etc. from vehicle maintenance, equipment cleaning, or warehouse activities and thereby prevent the contamination of stormwater from these substances.
    (b) Provide collection facilities and arrange for proper disposal of waste products including but not limited to petroleum waste products, and solvents.
    (c) Store all paint, solvents, petroleum products and petroleum waste products (except fuels), and storage containers (such as drums, cans, or cartons) so that these materials are not exposed to stormwater or provide other prescribed BMPs such as plastic lids and/or portable spill pans to prevent the commingling of stormwater with container contents. Commingled water may not be discharged under this permit. Provide spill prevention control, and/or management sufficient to prevent any spills of these pollutants from entering waters of the state. Any containment system used to implement this requirement shall be constructed of materials compatible with the substances contained and shall also prevent the contamination of groundwater.
    (d) Provide good housekeeping practices on the site to keep trash from entry into waters of the state.
    (e) Provide sediment and erosion control sufficient to prevent or control sediment loss off of the property. This could include the use of straw bales, silt fences, or sediment basins, if needed, to comply with effluent limits or benchmarks.
    (f) Ensure that adequate provisions are provided to prevent surface water intrusion into the storage basin, to divert stormwater runoff around the storage basin, and to protect embankments from erosion.

13. To protect the general criteria found at 10 CSR 20-7.031(4), before releasing water accumulated in secondary containment areas, it must be examined for hydrocarbon odor and presence of sheen. If the presence of odor or sheen is indicated, the water shall be treated using an appropriate method or disposed of in accordance with legally approved methods, such as being sent to a wastewater treatment facility. Following treatment, the water shall be tested for oil and grease, benzene, toluene, ethylbenzene, and xylene using 40 CFR part 136 methods. All pollutant levels must be below the most protective, applicable standards for the receiving stream, found in 10 CSR 20-7.031 Table A. Records of all testing and treatment of water accumulated in secondary containment shall be stored in the SWPPP to be available on demand to MDNR and EPA personnel.

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

MISSOURI DEPARTMENT OF NATURAL RESOURCES
FACT SHEET
FOR THE PURPOSE OF RENEWAL
OF
MO-0117331
FORMER TRONOX FACILITY AT SPRINGFIELD MO

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

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

Part I. FACILITY INFORMATION

Facility Type: Industrial
Facility SIC Code(s): 9511
Facility NAICS Code: 562910
Application Date: 06/22/2015
Modification Date: 08/06/2013
Expiration Date: 12/22/2015
Last Inspection: 06/23/2015 compliant

FACILITY DESCRIPTION:
Former wood treating facility; closed and decommissioned. The Greenfield Environmental Multistate Trust, LLC; Trustee for the Multistate Environmental Response Trust (henceforth “Multistate Trust”) manages the former facility under a RCRA post-closure permit MOD007128406. The Multistate Trust was given operational control on February 14, 2011.

The Springfield (former Tronox, former Kerr-McGee) facility is currently classified as a closed site with a Missouri Hazardous Waste Management Facility Permit. The site is still undergoing corrective action, and Multistate Trust is henceforth responsible for any contamination originating from the site. The facility formerly treated railroad ties with creosote wood preservative. Several solid waste management units, three surface impoundments, and a land farm treatment unit are all located on the site. When the facility stopped operating, the solid waste management units, three surface impoundments, and the land farm treatment unit went through a closure process. The closure included the removal of contaminated soil and the placement of final covers or caps on the surface impoundments. Corrective measures also included the installation of several recovery trenches, extraction wells, and groundwater monitoring wells to track the movement of remaining underground contamination. The areas where contamination remained in place after closure was finished, such as the surface impoundments, entered a period of post-closure maintenance and long-term monitoring to ensure that the cap remains stable and further contaminant migration does not occur. Contaminated groundwater is removed and sent to the Springfield sanitary sewer system where it received treatment at the wastewater treatment facility.

PERMITTED FEATURES TABLE:

OUTFALL	AVERAGE FLOW (MGD)	DESIGN FLOW (MGD)	TREATMENT LEVEL	EFFLUENT TYPE
#001	0.403 MGD	dependent upon precipitation	BMPs	stormwater
#002	0.122 MGD	dependent upon precipitation	BMPs	stormwater

FACILITY PERFORMANCE HISTORY & COMMENTS:
Both outfalls discharge to losing streams. However, the facility is no longer in operation and discharges only stormwater. The benchmarks and limits assigned in Part III below will be protective of the receiving streams.

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 1st 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 LWW) = 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 streams have no concurrent water quality data available however, some data is available in the TMDL documents. Both outfalls discharge to losing streams. The facility is no longer in operation and discharges only stormwater. The benchmarks and limits assigned in the permit will be protective of the receiving streams.

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; outfall #002 discharges to a tributary to the North Branch of Wilsons Creek. The stream's impaired use is for aquatic habitat due to excess zinc attributed to mine tailings.
- ✓ This facility is not considered to be a source of the above listed pollutant or considered to contribute to the impairment of the stream.

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; outfall #001 is within the Little Sac River TMDL watershed; approved by the EPA on August 9, 2006. This TMDL is for fecal coliform.
- ✓ Applicable; outfall #002 is within the James River TMDL watershed; approved by the EPA on May 7, 2001 and updated December 2004. This TMDL is for nutrients.
- ✓ This facility is not considered to be a source of the above listed pollutants or considered to contribute to the impairment of these watersheds. The nutrient pollution is attributed to urban point and nonpoint sources and agricultural nonpoint sources.

RECEIVING STREAMS TABLE:

OUTFALL	WATERBODY NAME	CLASS	WBID	DESIGNATED USES	DISTANCE TO SEGMENT	12-DIGIT HUC
#001	8-20-13 MUDD V1.0; Tributary to Spring Branch (Losing)	C	3960	HHP (HHF), IRR, LWP (LWW), SCR, WBC-B, WWH (AQL)	0.0 mi	1029016-0404 Flint Hill Branch-Little Sac River
#002	Tributary to Tributary to North Branch Wilsons Creek	n/a	n/a	General Criteria	0.0 mi	11010002-0301 Headwaters Wilsons Creek
	Tributary to North Branch Wilsons Creek (Losing)	C	3375	HHP (HHF), IRR, LWP (LWW), SCR, WBC-B, WWH (AQL)	0.5 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 ftp://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)] 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 Department determined technical mistakes or mistaken interpretations of law were made in issuing the permit under section 402(a)(1)(b).
    - The previous permit limits were established in error, based on limits process wastewater, however, these are stormwater outfalls. This renewal establishes limits and benchmarks appropriate for stormwater discharges. There will be no changes to industrial activities onsite or the composition of the stormwater discharge as a result of this renewal. The benchmark concentrations and required corrective actions are protective of the receiving stream's uses to be maintained.
  - ✓ Information is available which was not available at the time of permit issuance (other than revised regulations, guidance, or test methods) and which would have justified the application of a less stringent effluent limitation at the time of permit issuance.
    - ✓ The permit writer performed a reasonable potential determination on the following parameters. These parameters were monitoring only in the previous permit therefore were removed in this permit. Benzene, 2,4-dimethylphenol, 2,4-dinitrophenol, ethylbenzene, guaicol (2-methylphenol), toluene, and xylene.
    - ✓ The permit writer performed a reasonable potential determination on the following parameters. These parameters had limits in the previous permit therefore were reduced to monitoring only in this permit. Acenapththylene, anthracene, benzo(a)anthracene, benzo(a)pyrene, benzo(k)fluoranthene, chrysene, dibenzo(a,h)anthracene, fluoroanthene, fluorine, indeno(1,2,3-cd)pyrene, naphthalene, and phenol.
    - ✓ The following parameters were changed from limits to benchmarks: COD, O&G, and SS.

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 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.

- ✓ Applicable; this facility has stormwater-only outfalls with benchmark constraints. The benchmarks listed are consistently achieved in stormwater discharges by a variety of other industries with SWPPs and is deemed protective of instream water quality and aquatic life.

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.

FLOW BASED PERMITTING:
A standard mass-balance equation cannot be calculated for stormwater from this facility because the stormwater flow and flow in the receiving stream cannot be determined for conditions on any given day. The amount of stormwater discharged from the facility will vary based on previous rainfall, soil saturation, humidity, detention time, BMPs, surface permeability, etc. Flow in the receiving stream will vary based on similar climatic conditions, size of watershed, and amount of surfaces with reduced permeability (houses, parking lots, and the like) in the watershed, hydrogeology, topography, etc.

It is likely that sufficient rainfall to cause a discharge for four continuous days from a facility will also cause some significant amount of flow in the receiving stream. Chronic WQSs are based on a four-day exposure (except ammonia, which is based on a thirty day exposure). In the event that discharge does occur from this facility for four continuous days, some amount of flow will occur in the receiving stream. This flow will dilute stormwater discharges from a facility. For these reasons, most industrial stormwater facilities have limited potential to cause a violation of chronic water quality standards in the receiving stream.

Sufficient rainfall to cause a discharge for one hour or more from a facility would not necessarily cause significant flow in a receiving stream. Acute WQSs are based on a one hour of exposure, and must be protected at all times in unclassified streams, and within mixing zones of class P streams [10 CSR 20-7.031(3) and (4)]. Therefore, industrial stormwater facilities with toxic contaminants do have the potential to cause a violation of acute WQSs if those toxic contaminants occur in sufficient amounts.

It is due to the items stated above that staff drafting this fact sheet are unable to perform statistical Reasonable Potential Analysis and calculate Wasteload Allocations via a mass-balance equation for effluent limit determination. However, staff may use their best professional judgment in determining if a facility has a potential to violate Missouri's Water Quality Standards.

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 standards. 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. This permit establishes permit limits and benchmarks for stormwater. The department has determined stormwater is not a continuous discharge and is therefore not subject to RPA. However, the permit writer completed an RPD, a reasonable potential determination, using best professional judgment for all of the parameters in this permit. A RPD consists of reviewing the data for the last five years and comparing those data to the water quality standards.

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. SOCs 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:

$$C = \frac{(Cs \times Qs) + (Ce \times Qe)}{(Qe + Qs)}$$ (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

- Acute wasteload allocations (daily maximum limits) 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).
- Chronic wasteload allocations (monthly average limits) 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).
- 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. Due to the variable nature of stormwater and irreproducible results of the WET test under these conditions, the facility is not subject to WET testing requirements.

Part IV. EFFLUENT LIMITS DETERMINATION

OUTFALL #001 & #002 – STORMWATER ONLY

Benchmarks and 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	BENCH-MARK	PREVIOUS PERMIT LIMITS	MINIMUM SAMPLING FREQUENCY	MINIMUM REPORTING FREQUENCY	SAMPLE TYPE
PHYSICAL								
Flow	MGD	1	*	-	*, *	once/quarter	once/quarter	24 hr. estimate
Precipitation	inches	6	*	-	*, *	once/quarter	once/quarter	24 hr. tot
CONVENTIONAL								
COD	mg/L	6	**	90	90, 60	once/quarter	once/quarter	grab
Oil & Grease	mg/L	1, 3	**	10	15, 10	once/quarter	once/quarter	grab
pH ǂ	SU	1, 3	6.5 to 9.0	-	same	once/quarter	once/quarter	grab
Settleable Solids	mL/L/hr	6	**	1.0	1.0, 0.5	once/quarter	once/quarter	grab
TSS	mg/L	6	**	100	new	once/quarter	once/quarter	grab
Metals								
Arsenic, TR	µg/L	6	*	-	new	once/quarter	once/quarter	grab
Copper, TR	µg/L	6	*	-	new	once/quarter	once/quarter	grab
OTHER								
Acenaphthene	µg/L	6	2600	-	2600, 1300	once/quarter	once/quarter	grab
Acenaphthylene	µg/L	6	*	-	0, 0	once/quarter	once/quarter	grab
Anthracene	µg/L	6	*	-	1900, 960	once/quarter	once/quarter	grab
Benzo(a)anthracene	µg/L	6	*	-	0.0088, 0.0044	once/quarter	once/quarter	grab
Benzo(a)pyrene	µg/L	6	*	-	0.10, 0.049	once/quarter	once/quarter	grab
Benzo(k)fluoranthene	µg/L	6	*	-	0.0088, 0.0044	once/quarter	once/quarter	grab
2-Chlorophenol	µg/L	6, 9	**	5	*, *	once/quarter	once/quarter	grab
Chrysene	µg/L	6	*	-	0.0088, 0.0044	once/quarter	once/quarter	grab
Dibenzo(a,h)anthracene	µg/L	6	*	-	0.0088, 0.0044	once/quarter	once/quarter	grab
Fluoroanthene	µg/L	6	*	-	603, 300	once/quarter	once/quarter	grab
Fluorene	µg/L	6	*	-	2600, 1300	once/quarter	once/quarter	grab
Indeno(1,2,3-cd)pyrene	µg/L	6	*	-	0.0088, 0.0044	once/quarter	once/quarter	grab
Naphthalene	µg/L	6	*	-	40, 20	once/quarter	once/quarter	grab
o-Cresol	µg/L	6	3000	-	3000, 1500	once/quarter	once/quarter	grab
Phenol	µg/L	6	*	-	164, 82	once/quarter	once/quarter	grab

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

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
7. TMDL or Permit in lieu of TMDL
8. Benchmark based on MSGP
9. Benchmark based on site specific information

DERIVATION AND DISCUSSION OF LIMITS:

PHYSICAL:

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

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

CONVENTIONAL:

Chemical Oxygen Demand (COD)
Monitoring is included using the permit writer's best professional judgment. The facility has sampled for this parameter and values range from 10 to 101. The facility has exceeded the limits once in the last five years at outfall #001. There is no water quality standard for COD; however, increased oxygen demand may impact instream water quality. COD is also a valuable indicator parameter. COD monitoring allows the permittee to identify increases in COD that may indicate materials/chemicals coming into contact with stormwater that cause an increase in oxygen demand. Increases in COD may indicate a need for maintenance or improvement of BMPs. Additionally, a benchmark value will be implemented for this parameter. The benchmark value will be set at 90 mg/L. This value is the same as the daily maximum value in the previous permit.

Oil & Grease
Monitoring with a 10 mg/L daily maximum benchmark. The previous permit required a 15 mg/L daily maximum limit, and a 10 mg/L monthly average limit. Oil and grease is a comprehensive test which measures for gasoline, diesel, crude oil, creosote, kerosene, heating oils, heavy fuel oils, lubricating oils, waxes, and some asphalt and pitch. The test can also detect some volatile organics such as benzene, toluene, ethylbenzene, or toluene, but these constituents are often lost during testing due to their boiling points. It is recommended to perform separate testing for these constituents if they are a known pollutant of concern at the site, i.e. aquatic life toxicity or human health is a concern. Results do not allow for separation of specific pollutants within the test, they are reported, totaled, as "Oil and grease". Per 10 CSR 20-7.031 Table A: *Criteria for Designated Uses*; 10 mg/L is the standard for the protection of aquatic life. 10 mg/L is also the level at which sheen is estimated to form on receiving waters. It is in the best professional judgment of the permit writer to reduce limits from 15 mg/L to 10 mg/L to protect the general criteria. If sheen is known to form at 10 mg/L, 15 mg/L would lead to violations of the general criteria and is indefensible. Oils and greases of different densities will possibly form sheen or unsightly bottom deposits at levels which vary from 10 mg/L. To protect the general criteria found at 10 CSR 20-7.031(4), it is the responsibility of the permittee to visually observe the discharge and receiving waters for sheen or bottom deposits.

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. Continued from previous permit.

Settleable Solids (SS)
There is no water quality standard for SS; however, sediment discharges can negatively impact aquatic life habitat. Settleable solids are also a valuable indicator parameter. Solids monitoring allows the permittee to identify increases in sediment and solids that may indicate uncontrolled materials leaving the site. Similar facilities have permit limits of 1.0 mL/L/hour daily maximum are typical and achievable. The limits is protective of losing streams. Additionally, a benchmark value will be implemented for this parameter. The benchmark value will be set at 1.0 mg/L. This is the same as the previous permit's limits.

Total Suspended Solids (TSS)
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. Additionally, a benchmark value will be implemented for this parameter. The benchmark value will be set at 100 mg/L. This value falls within the range of values implemented in other permits that have stormwater permits. New this permit.

METALS:
The facility believes all metals are absent from the stormwater at the site.

Arsenic, Total Recoverable
During an inspection by the regional office, it appeared wood products, treated and untreated, are allowed to be stored on the Multistate Trust property by a lumber and building materials wholesale operation, Cedar Creek. The permit writer has used best professional judgment to include monitoring of arsenic as it is a contaminant of concern for treated wood products according to the EPA's multi-sector general permit. Limits for this facility if necessary in the future would likely be based on the protection of aquatic life standard of 20 µg/L.

Copper, Total Recoverable
During an inspection by the regional office, it appeared wood products, treated and untreated, are allowed to be stored on the Multistate Trust property by Cedar Creek, a lumber and building materials wholesale operation. The permit writer has used best professional judgment to include monitoring of copper as it is a contaminant of concern for treated wood products according to the EPA's multi-sector general permit. Limits for this facility if necessary in the future would likely be based on protection of aquatic life standard of 26 µg/L.

NUTRIENTS:
The facility believes all nutrients are absent from the stormwater at the site.

OTHER:
For consistency with the water quality standards, all parameters in this section with previous mg/L limits will be converted to µg/L. Each parameter listed below is designated by the section of the water quality standards it is found under at 10 CSR 20-7.031 Table A.

Acenaphthene
Polynuclear aromatic hydrocarbon. The groundwater criteria is the most protective criteria for this parameter. Previous permit limits have been assessed and determined the MDL should be applied because the permittee has exceeded permit limits for this parameter four times over the last five years. Previous permit limits of 2600 µg/L is continued.

Acenaphthylene
Polynuclear aromatic hydrocarbon. Previous permit limits allowed no discharge of this parameter with a detection limit of 5µg/L. The facility did not detect this parameter in their stormwater. There are no water quality standards for this particular polycyclic aromatic hydrocarbon therefore it has been removed from limits. Monitoring only. The facility must continue to use a sufficiently sensitive analytical method; see standard conditions Part 1 Section A Number 4.

Anthracene
Polynuclear aromatic hydrocarbon. The previous permit determined 1900 µg/L as the maximum daily limit for this parameter. The highest value reported by the facility was 500 µg/L. The permit writer has determined the facility has no reasonable potential to contribute to pollution of waters of the state from anthracene; limits removed, monitoring only.

Benzene
Volatile organic. The previous permit was monitoring only and added at the request of the department's hazardous waste program. Maximum value reported was 1 µg/L. The permit writer has determined the facility has no reasonable potential to contribute to pollution of waters of the state from benzene as the groundwater quality standard is 5 µg/L. Removed from permit.

Benzo(a)anthracene
Polynuclear aromatic hydrocarbon. Previous permit limit was 0.0088 µg/L daily maximum using the groundwater standard. The permit writer has reviewed the last five years of data and determined the facility has submitted non-detects for this parameter. Limits are removed. The facility will need to continue to monitor for this parameter keeping in mind any value above 5 µg/L will be considered a detection and an exceedance of water quality standards regardless if they are limited in the permit. The facility must continue to use a sufficiently sensitive analytical method; see standard conditions Part 1 Section A Number 4.

Benzo(a)pyrene
Polynuclear aromatic hydrocarbon. Human health criteria for this parameter is 0.049 µg/L. Previous permit limits were 0.10 µg/L with a method detection limit of 5 µg/L. The facility has reported all non-detects for this parameter in the last five years. Limits are removed from this permit. The facility will need to continue to monitor for this parameter keeping in mind any value above 5 µg/L will be considered a detection and an exceedance of water quality standards regardless if they are limited in the permit. The facility must continue to use a sufficiently sensitive analytical method; see standard conditions Part 1 Section A Number 4.

Benzo(k)fluoranthene
Polynuclear aromatic hydrocarbon. Previous permit limit was 0.0088 µg/L daily maximum using the groundwater standard. The permit writer has reviewed the last five years of data and determined the facility has submitted non-detects for this parameter. Limits are removed. The facility will need to continue to monitor for this parameter keeping in mind any value above 5 µg/L will be considered a detection and an exceedance of water quality standards regardless if they are limited in the permit. The facility must continue to use a sufficiently sensitive analytical method; see standard conditions Part 1 Section A Number 4.

2-Chlorophenol
Organic pollutant. The previous permit was monitoring only and added at the request of the department's hazardous waste program. All values reported were between 4.9 and 6 µg/L. The groundwater quality standard is 0.1 µg/L. The permittee will be required to make progress to determine the best course of action through monitoring and improvement of BMPs at the site to reduce the amount of this parameter in the stormwater. The permittee has supplied the following table for consideration.

Laboratory	Method(s)	Limit of Detection Provided By Laboratory (ug/L)	Comments By Laboratory
CaSi/Pace (Current Reporting Laboratories)	625/8270C	5	Assumes matrix interference will be present in the stormwater sample
Eurofins Lancaster	8270C	0.5 (assumes "clean" sample without matrix interference)	If matrix interference is present the reporting limit for 2-chlorophenol will be higher
Test America	8270C	0.5 (assumes "clean" sample without matrix interference)	If matrix interference is present the reporting limit for 2-chlorophenol will be higher
PDC Lab	625	0.6 (assumes "clean"" sample without matrix interference)	If matrix interference is present the reporting limit for 2-chlorophenol will be higher
TekLab			Declined analysis of 2-chlorophenol

Per 40 CFR 122.44(i)(1)(iv)(A)(2) and the subsequent note, the department may consider site-specific information when deriving permit limits and conditions. The department has determined the detection limit for this parameter is between 0.6 and 5 µg/L. However, we have also carefully considered how interferences can negatively affect the outcome of analytical results. As only Pace and PDC are using sufficiently sensitive 40 CFR 136 approved methods, only those two were considered as viable laboratories. Per the department's standard determination of MLs from detection limits (per https://www.gpo.gov/fdsys/pkg/FR-1995-05-25/pdf/95-12894.pdf), we have concluded the ML for PDC Labs would be 0.6 * 3.18 = 1.908 µg/L. However, Pace Labs have reported 5 as a ML. Most importantly, data reported from Pace Laboratories have hovered around the 5 µg/L value. Site specific data have shown inferences and it would likely be similar for PDC Lab because they are using the same method. Because this is a benchmark and past data from this laboratory have shown the true reporting limit is very close to 5, the permit writer has chosen 5 µg/L as the ML. Hence, the permit writer has approved and implemented the benchmark at 5 µg/L.

Chrysene
Polynuclear aromatic hydrocarbon. Previous permit limit was 0.0088 µg/L daily maximum using the groundwater standard. The permit writer has reviewed the last five years of data and determined the facility has submitted non-detects for this parameter. Limits are removed. The facility will need to continue to monitor for this parameter keeping in mind any value above 5 µg/L will be considered a detection and an exceedance of water quality standards regardless if they are limited in the permit. The facility must continue to use a sufficiently sensitive analytical method; see standard conditions Part 1 Section A Number 4.

2,4-Dimethylphenol
Organic pollutant. The previous permit was monitoring only and added at the request of the department's hazardous waste program. All values reported were between 0.009 and 25 µg/L. The groundwater quality standard is 540 µg/L. The permit writer has determined this parameter has no potential of contributing to pollution of waters of the state. Removed from permit.

2,4-Dinitrophenol
Organic pollutant. The previous permit was monitoring only and added at the request of the department's hazardous waste program. All values reported were between 0.0249 and 25 µg/L. The groundwater quality standard is 70 µg/L. The permit writer has determined this parameter has no potential of contributing to pollution of waters of the state. Removed from permit.

Dibenzo(a,h)anthracene
Polynuclear aromatic hydrocarbon. Previous permit limit was 0.0088 µg/L daily maximum using the groundwater standard. The permit writer has reviewed the last five years of data and determined the facility has submitted non-detects for this parameter. Limits are removed. The facility will need to continue to monitor for this parameter keeping in mind any value above 5 µg/L will be considered a detection and an exceedance of water quality standards regardless if they are limited in the permit. The facility must continue to use a sufficiently sensitive analytical method; see standard conditions Part 1 Section A Number 4.

Ethylbenzene
Organic pollutant. The previous permit was monitoring only and added at the request of the department's hazardous waste program. Maximum value reported was 4.9 µg/L. The permit writer has determined the facility has no reasonable potential to contribute to pollution of waters of the state from ethylbenzene as the protection of aquatic life standard is 320 µg/L. Removed from permit.

Fluoroanthene
Polynuclear aromatic hydrocarbon. Previous permit limits were 603 µg/L daily maximum and 300 µg/L monthly average. Permittee reported results from 0.0049 to 5 µg/L. Limits are removed. The facility will need to continue to monitor for this parameter.

Fluorene
Polynuclear aromatic hydrocarbon. Previous permit limits were 2600 µg/L daily maximum and 1300 µg/L monthly average. Permittee reported results from 5 to 49 µg/L. Limits are removed as no reasonable potential exists to cause or contribute to pollution of waters of the state from this parameter. The facility will need to continue to monitor for this parameter.

Guaicol (2-Methylphenol)
There are no water quality standards or effluent limitation guidelines for this parameter. Previous permit was monitoring only; removed from permit.

Indeno(1,2,3-cd)pyrene
Polynuclear aromatic hydrocarbon. Previous permit limit was 0.0088 µg/L daily maximum using the groundwater standard. The permit writer has reviewed the last five years of data and determined the facility has submitted non-detects for this parameter. Limits are removed. The facility will need to continue to monitor for this parameter keeping in mind any value above 5 µg/L will be considered a detection and an exceedance of water quality standards regardless if they are limited in the permit. The facility must continue to use a sufficiently sensitive analytical method; see standard conditions Part 1 Section A Number 4.

Naphthalene
Health advisory pollutant; polycyclic aromatic hydrocarbon. The groundwater standard is 20 µg/L and previous permit limits were 40 µg/L daily maximum, and 20 µg/L monthly average. The facility reported all non-detections for this parameter. Limits reduced to monitoring only as the facility has no reasonable potential to contribute to pollution of waters of the state from this parameter.

o-Cresol
Contaminant of concern for the industry, no WQS. Previous permit daily maximum was 3000 µg/L and 1500 µg/L monthly average. The values have been assessed and determined they remain protective of the receiving water's quality. However, only the daily maximum value will be limited as monthly averages are unreliable measures of stormwater.

Phenol
Organic pollutant. Groundwater quality standard is 300 µg/L; previous permit limits were 164 µg/L daily maximum and 82 µg/L monthly average and were based on the drinking water standard. The receiving streams are not listed for drinking water use therefore the groundwater standard will be used for comparison. Regardless, the facility reported all non-detections for this parameter therefore limits will be removed and monitoring will continue.

Toluene
Volatile organic. The previous permit was monitoring only and added at the request of the department's hazardous waste program. Maximum value reported was 1 µg/L. The permit writer has determined the facility has no reasonable potential to contribute to pollution of waters of the state from toluene as the protection of aquatic life standard is 200,000 µg/L and the groundwater protection standard is 1,000 µg/L. Removed from permit.

Xylene
Volatile organic. The previous permit was monitoring only and added at the request of the department's hazardous waste program. Maximum value reported was 3 µg/L. The permit writer has determined the facility has no reasonable potential to contribute to pollution of waters of the state from xylene as the groundwater protection standard is 10,000 µg/L. Removed from permit.

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 newly promulgated 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.

SUFFICIENTLY SENSITIVE ANALYTICAL METHODS:
Please review Standard Conditions Part 1, Section A, number 4. The analytical and sampling methods used shall conform to the reference methods listed in 10 CSR 20-7.015 unless alternatives 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 the analysis performed is sufficiently sensitive. 40 CFR 136 lists the approved methods accepted by the department.

SAMPLING FREQUENCY JUSTIFICATION:
Sampling and reporting frequency was generally retained from previous permit. Similar permits have quarterly monitoring and reporting and the department has concluded quarterly sampling of stormwater to be protective of in-stream water quality for most facilities. Sampling frequency for stormwater-only outfalls is typically quarterly 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.

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 the end of the first quarter, 2019.*

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.

A public notice occurred from April 8 to May 9, 2016 with a benchmark of 0.1 µg/L for 2-chlorophenol. However, after the public notice period, the facility submitted information which asserted the benchmark was in-feasible; the permit writer reviewed the data supplied by the facility and determined a benchmark of 5 µg/L was appropriate. Several other minor grammatical and typographical errors were also corrected since the first public notice.

The second Public Notice period for this operating permit was from 7/16/2016 to 8/16/2016. No comments were received.

DATE OF FACT SHEET: AUGUST 18, 2016

COMPLETED BY:

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STANDARD CONDITIONS FOR NPDES PERMITS
ISSUED BY
THE MISSOURI DEPARTMENT OF NATURAL RESOURCES
MISSOURI CLEAN WATER COMMISSION
REVISED
AUGUST 1, 2014

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

Part I – General Conditions
Section A – Sampling, Monitoring, and Recording

1. **Sampling Requirements.**
   a. Samples and measurements taken for the purpose of monitoring shall be representative of the monitored activity.
   b. All samples shall be taken at the outfall(s) or Missouri Department of Natural Resources (Department) approved sampling location(s), and unless specified, before the effluent joins or is diluted by any other body of water or substance.

2. **Monitoring Requirements**.
   a. Records of monitoring information shall include:
      i. The date, exact place, and time of sampling or measurements;
      ii. The individual(s) who performed the sampling or measurements;
      iii. The date(s) analyses were performed;
      iv. The individual(s) who performed the analyses;
      v. The analytical techniques or methods used; and
      vi. The results of such analyses.
   b. If the permittee monitors any pollutant more frequently than required by the permit at the location specified in the permit using test procedures approved under 40 CFR Part 136, or another method required for an industry-specific waste stream under 40 CFR subchapters N or O, the results of such monitoring shall be included in the calculation and reported to the Department with the discharge monitoring report data (DMR) submitted to the Department pursuant to Section B, paragraph 7.

3. **Sample and Monitoring Calculations.** Calculations for all sample and monitoring results which require averaging of measurements shall utilize an arithmetic mean unless otherwise specified in the permit.

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

5. **Record Retention.** Except for records of monitoring information required by the permit related to the permittee's sewage sludge use and disposal activities, which shall be retained for a period of at least five (5) years (or longer as required by 40 CFR part 503), the permittee shall retain records of all monitoring information, including all calibration and maintenance records and all original strip chart recordings for continuous monitoring instrumentation, copies of all reports required by the permit, and records of all data used to complete the application for the permit, for a period of at least three (3) years from the date of the sample, measurement, report or application. This period may be extended by request of the Department at any time.

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

Section B – Reporting Requirements

1. **Planned Changes.**
   a. The permittee shall give notice to the Department as soon as possible of any planned physical alterations or additions to the permitted facility when:
      i. The alteration or addition to a permitted facility may meet one of the criteria for determining whether a facility is a new source in 40 CFR 122.29(b); or
      ii. The alteration or addition could significantly change the nature or increase the quantity of pollutants discharged. This notification applies to pollutants which are subject neither to effluent limitations in the permit, nor to notification requirements under 40 CFR 122.42;
      iii. The alteration or addition results in a significant change in the permittee's sludge use or disposal practices, and such alteration, addition, or change may justify the application of permit conditions that are different from or absent in the existing permit, including notification of additional use or disposal sites not reported during the permit application process or not reported pursuant to an approved land application plan;
      iv. Any facility expansions, production increases, or process modifications which will result in a new or substantially different discharge or sludge characteristics must be reported to the Department 60 days before the facility or process modification begins. Notification may be accomplished by application for a new permit. If the discharge does not violate effluent limitations specified in the permit, the facility is to submit a notice to the Department of the changed discharge at least 30 days before such changes. The Department may require a construction permit and/or permit modification as a result of the proposed changes at the facility.

2. **Non-compliance Reporting.**
   a. The permittee shall report any noncompliance which may endanger health or the environment. Relevant information shall be provided orally or via the current electronic method approved by the Department, within 24 hours from the time the permittee becomes aware of the circumstances, and shall be reported to the appropriate Regional Office during normal business hours or the Environmental Emergency Response hotline at 573-634-2436 outside of normal business hours. A written submission shall also be provided within five (5) business days of the time the permittee becomes aware of the circumstances. The written submission shall contain a description of the noncompliance and its cause; the period of noncompliance, including exact dates and times, and if the noncompliance has not been corrected, the anticipated time it is expected to continue; and steps taken or planned to reduce, eliminate, and prevent reoccurrence of the noncompliance.

b. The following shall be included as information which must be reported within 24 hours under this paragraph.
   i. Any unanticipated bypass which exceeds any effluent limitation in the permit.
   ii. Any upset which exceeds any effluent limitation in the permit.
   iii. Violation of a maximum daily discharge limitation for any of the pollutants listed by the Department in the permit required to be reported within 24 hours.
c. The Department may waive the written report on a case-by-case basis for reports under paragraph 2. b. of this section if the oral report has been received within 24 hours.

3. **Anticipated Noncompliance**. The permittee shall give advance notice to the Department of any planned changes in the permitted facility or activity which may result in noncompliance with permit requirements. The notice shall be submitted to the Department 60 days prior to such changes or activity.

4. **Compliance Schedules.** Reports of compliance or noncompliance with, or any progress reports on, interim and final requirements contained in any compliance schedule of the permit shall be submitted no later than 14 days following each schedule date. The report shall provide an explanation for the instance of noncompliance and a proposed schedule or anticipated date, for achieving compliance with the compliance schedule requirement.

5. **Other Noncompliance.** The permittee shall report all instances of noncompliance not reported under paragraphs 2, 3, and 6 of this section, at the time monitoring reports are submitted. The reports shall contain the information listed in paragraph 2. a. of this section.

6. **Other Information**. Where the permittee becomes aware that it failed to submit any relevant facts in a permit application, or submitted incorrect information in a permit application or in any report to the Department, it shall promptly submit such facts or information.

7. **Discharge Monitoring Reports.**
   a. Monitoring results shall be reported at the intervals specified in the permit.
   b. Monitoring results must be reported to the Department via the current method approved by the Department, unless the permittee has been granted a waiver from using the method. If the permittee has been granted a waiver, the permittee must use forms provided by the Department.
   c. Monitoring results shall be reported to the Department no later than the 28th day of the month following the end of the reporting period.

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.
   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 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

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.

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.

RECEIVED AP 21435

JUN 22 2015

WATER PROTECTION PROGRAM

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

FOR AGENCY USE ONLY	
CHECK NUMBER	
DATE RECEIVED 6/22/15	FEE SUBMITTED

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

1. This application is for:

- ☐ An operating permit for a new or unpermitted facility:
  Please indicate the original Construction Permit # _____
- ☑ An operating permit renewal:
  Please indicate the permit # MO- 0117331 Expiration Date 12/22/2015
- ☐ An operating permit modification:
  Please indicate the permit # MO-_____ Modification Reason: _____

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

2. FACILITY

NAME		TELEPHONE NUMBER WITH AREA CODE	
Former Tronox Facility - Springfield Missouri		(417) 868-8980	
		FAX	
ADDRESS (PHYSICAL)	CITY	STATE	ZIP CODE
2800 High Street	Springfield	MO	65801

3. OWNER

NAME	EMAIL ADDRESS	TELEPHONE NUMBER WITH AREA CODE	
Greenfield Environmental Multistate Trust, LLC; Trustee for the Multistate Environmental Response Trust	tl@g-etg.com	(602) 312-6993	
		FAX	
ADDRESS (MAILING)	CITY	STATE	ZIP CODE
44 Shattuck Road	Watertown	MA	02472

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

4. CONTINUING AUTHORITY

NAME	EMAIL ADDRESS	TELEPHONE NUMBER WITH AREA CODE	
Greenfield Environmental Multistate Trust, LLC; Trustee for the Multistate Environmental Response Trust	tl@g-etg.com	(602) 312-6993	
		FAX	
ADDRESS (MAILING)	CITY	STATE	ZIP CODE
44 Shattuck Road	Watertown	MA	02472

5. OPERATOR

NAME	CERTIFICATE NUMBER	TELEPHONE NUMBER WITH AREA CODE	
J. David Settles	5542	(417) 868-8980	
		FAX	
ADDRESS (MAILING)	CITY	STATE	ZIP CODE
2800 High Street	Springfield	MO	65801

6. FACILITY CONTACT

NAME	TITLE	TELEPHONE NUMBER WITH AREA CODE
Tasha Lewis	Portfolio Manager	(602) 312-6993
	E-MAIL ADDRESS tl@g-etg.com	FAX

7. ADDITIONAL FACILITY INFORMATION

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

001 SW ¼ NE ¼ Sec 9 T 29N R 22W GREE County
UTM Coordinates Easting (X): 470772 Northing (Y): 4121264
For Universal Transverse Mercator (UTM), Zone 15 North referenced to North American Datum 1983 (NAD83)

002 SW ¼ NE ¼ Sec 9 T 29N R 22W GREE County
UTM Coordinates Easting (X): 469974 Northing (Y): 4121137

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

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

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

001 – SIC 9511 and NAICS 562910 002 – SIC 9511 and NAICS 562910
003 – SIC ____ and NAICS ____ 004 – SIC ____ and NAICS ____

MO 780-1479 (07-14)

SW Greene

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

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

NAME				
001: City of Springfield	002: Cedar Creek Wholesale			
ADDRESS		CITY	STATE	ZIP CODE
001: 2689 W High St.	002: 2123 Golden Ave.	Springfield	MO	65802

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

NAME AND OFFICIAL TITLE (TYPE OR PRINT)	TELEPHONE NUMBER WITH AREA CODE
Tasha Lewis, Portfolio Manager	(602) 312-6993
SIGNATURE	DATE SIGNED
Tasha Lewis	6/19/15

MO 780-1479 (07-14)

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

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

HAVE YOU INCLUDED:

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

INSTRUCTIONS FOR COMPLETING FORM A - APPLICATION FOR NONDOMESTIC PERMIT

1. Check which option is applicable. **Do not check more than one item.** Nondomestic permit refer to permits issued by the Department of Natural Resources' Water Protection Program for all **nondomestic** wastewater treatment facilities, including all industry, stormwater, and Class IA Concentrated Animal Feeding Operations (CAFO). **This includes all nondomestic wastewater treatment facilities that incorporate domestic wastewater into the operating permit.**

1.1 OPERATING PERMIT FEES

If the application is for a site-specific permit re-issuance, send no fees. You will be invoiced separately by the department.

Discharges covered by section 644.052.4 RSMo. (Primary or Categorical Facilities)

$3,500 for a design flow under 1 mgd

$5,000 for a design flow of 1 mgd or more

A. Discharges covered by section 644.052.5 RSMo. (Secondary or Noncategorical Facilities).

$1,500 for a design flow under 1 million gallons per day (mpg)

$2,500 for a design flow of 1 mgd or more

SITE-SPECIFIC STORMWATER DISCHARGE FEES

A. $1,350 for a design flow under 1 mgd

B. $2,350 for a design flow of 1 mgd or more

CAFO OPERATING PERMIT FEES

A. $5,000 for site-specific permit (Class 1A)

OPERATING PERMIT MODIFICATIONS are subject to the following fees:

A. Major Modifications - 25 percent of annual fee.

B. Minor Modifications (in accordance with 40 CFR 122.63, including transfers) - $100

Note: Facility name and address changes where owner, operator and continuing authority remain the same are not considered transfers.

Incomplete permit applications and/or related engineering documents will be returned by the department if they are not completed in the time frame established in a comment letter from the department to the owner. Permit fees for returned applications shall be forfeited. Permit fees for applications being processed by the department that are withdrawn by the applicant shall be forfeited.

2. Facility - Provide the name by which this facility is known locally. Example: Southwest Sewage Treatment Plant, Country Club Mobile Home Park, etc. Also include the street address or location of the facility. If the facility lacks a street name or route number, give the names of the closest intersection, highway, county road, etc.

3. Owner - Provide the legal name and address of owner.

3.1 Prior to submitting a permit to public notice, the department shall provide the permit applicant 15 days to review the draft permit for nonsubstantive drafting errors. In the interest of expediting permit issuance, permit applicants may waive the opportunity to review draft permits prior to public notice. Check YES to review the draft permit prior to public notice. Check NO to waive the process and expedite the permit.

4. Continuing Authority - Permanent organization that will serve as the continuing authority for the operation, maintenance and modernization of the facility. The regulatory requirement regarding continuing authority is available at www.sos.mo.gov/adrules/csr/current/10csr/10c20-6a.pdf or contact the appropriate Department of Natural Resources regional office.

5. Operator - Provide the name, certificate number and telephone number of the person operating the facility.

6. Provide the name, title and work telephone number of a person who is thoroughly familiar with the operation of the facility and with the facts reported in this application and who can be contacted by the department, if necessary.

7.1 An outfall is the point at which wastewater is discharged. Outfalls should be given in terms of the legal description of the facility. Global Positioning System, or GPS, is a satellite-based navigation system. The department prefers that a GPS receiver is used at the outfall pipe and the displayed coordinates submitted. If access to a GPS receiver is not available, please use a mapping system to approximate the coordinates; the department's mapping system is available at www.dnr.mo.gov/internetmapviewer/.

7.2 List only your primary Standard Industrial Classification, or SIC, and North American Industry Classification System code for each outfall. The SIC system was devised by the U.S. Office of Management and Budget to cover all economic activities. To find the correct SIC code, an applicant may check his or her unemployment insurance forms or contact the Missouri Division of Employment Security, 573-751-3215. The primary SIC code is that of the operation that generates the most revenue. If this information is not available, the number of employees or, secondly, production rate may be used to determine your SIC code. Additional information is on the Web for Standard Industrial Codes at www.osha.gov/pls/imis/sicsearch.html and for the North American Industry Classification System at www.census.gov/naics or contact the appropriate Department of Natural Resources regional office.

8. If you answer yes to A, B, C, D, or E, then you must complete and file the supplementary form(s) indicated. A U.S. Geological Survey 1" = 2,000' scale map must be submitted with the permit application showing all outfalls, the receiving stream and the location of the downstream property owners. This type of map is available on the Web at www.dnr.mo.gov/internetmapviewer/ or from the Missouri Department of Natural Resources' Geological Survey in Rolla at 573-368-2125.

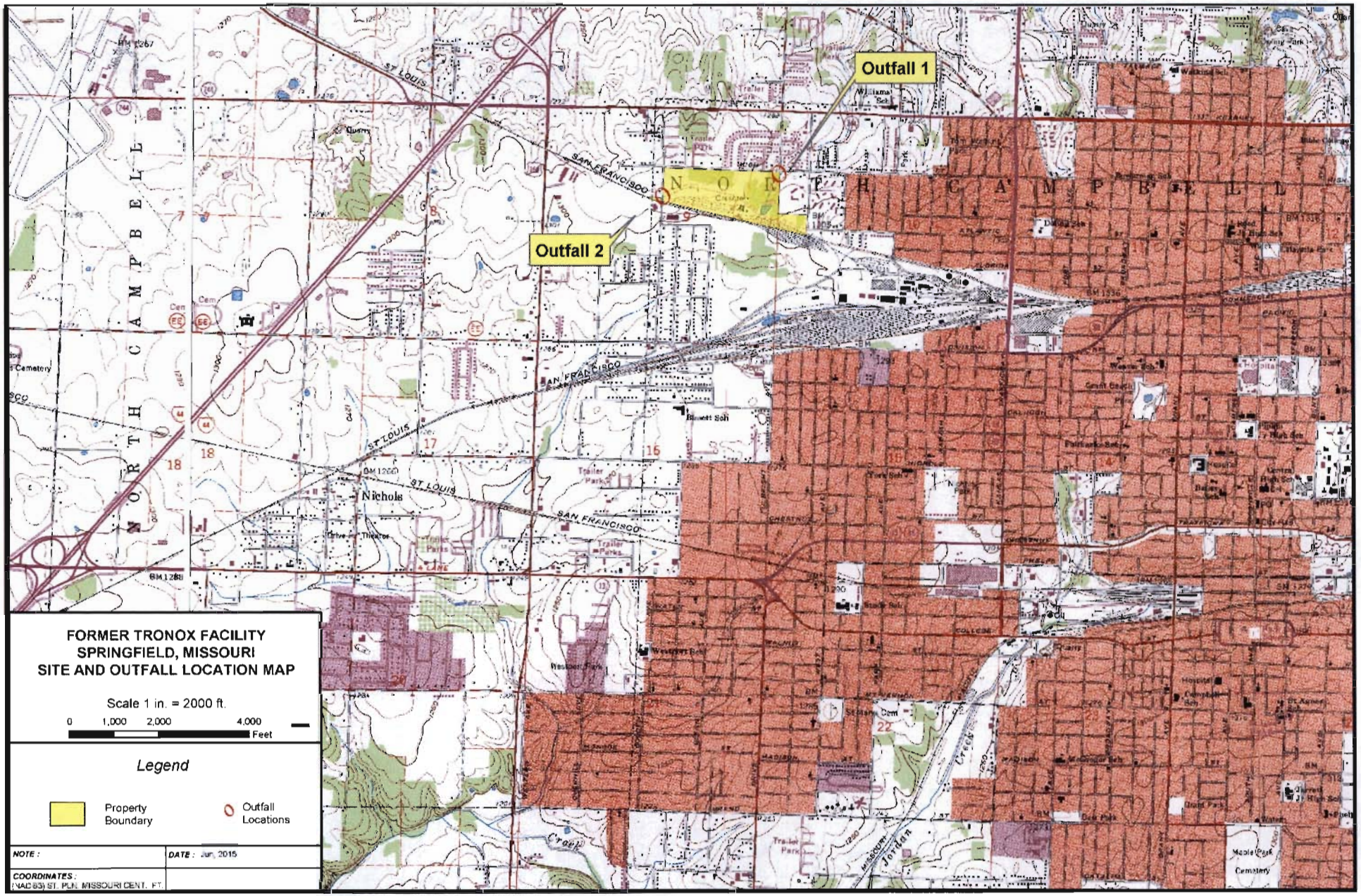
INSTRUCTIONS FOR COMPLETING FORM A - APPLICATION FOR NONDOMESTIC PERMIT (CONTINUED)

9. Please provide the name and address of the first downstream landowner, different from that of the permitted facility, through whose property the discharge will flow. Also, please indicate the location on the map. For discharges that leave the permitted facility and flow under a road or highway, or along the right-of-way, the downstream property owner is the landowner that the discharge flows to after leaving the right-of-way. For no discharge facilities, provide this information for the location where discharge would flow if there was one. For land application sites, include the owners of the land application sites and all adjacent landowners.

10. Signature - All applications must be signed as follows and the signature must be **original**:
    A. For a corporation, by an officer having responsibility for the overall operation of the regulated facility or activity or for environmental matters.
    B. For a partnership or sole proprietorship, by a general partner or the proprietor.
    C. For a municipal, state, federal or other public facility, by either a principal executive officer or by an individual having overall responsibility for environmental matters at the facility.

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

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



FORMER TRONOX FACILITY
SPRINGFIELD, MISSOURI
SITE AND OUTFALL LOCATION MAP

Scale 1 in. = 2000 ft.

0 1,000 2,000 4,000 Feet

Legend

Property Boundary

Outfall Locations

NOTE :	DATE : Jun, 2015
COORDINATES : (NAD 83) ST. PLN. MISSOURI CENT. FT.	

RECEIVED

JUN 22 2015

WATER PROTECTION PROGRAM

MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM, WATER POLLUTION BRANCH

FORM C – APPLICATION FOR DISCHARGE PERMIT – MANUFACTURING, COMMERCIAL, MINING, SILVICULTURE OPERATIONS, PROCESS AND STORMWATER

FOR AGENCY USE ONLY	
CHECK NO.	
DATE RECEIVED	FEE SUBMITTED

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

1.00 NAME OF FACILITY

Former Tronox Facility - Springfield Missouri

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

MO-0117331

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

2.00 LIST THE STANDARD INDUSTRIAL CLASSIFICATION (SIC) CODES APPLICABLE TO YOUR FACILITY (FOUR DIGIT CODE)

A. FIRST 9511 B. SECOND _____

C. THIRD _____ D. FOURTH _____

2.10 FOR EACH OUTFALL GIVE THE LEGAL DESCRIPTION.

OUTFALL NUMBER (LIST) SW 1/4 NE 1/4 SEC 9 T 29N R 22W GREENE COUNTY

2.20 FOR EACH OUTFALL LIST THE NAME OF THE RECEIVING WATER

OUTFALL NUMBER (LIST)	RECEIVING WATER
001	Unnamed tributary to Spring Branch
002	Unnamed tributary to Wilson Creek

2.30 BRIEFLY DESCRIBE THE NATURE OF YOUR BUSINESS

This is a former wood treating facility. The facility is closed and decommissioned. Greenfield Environmental Multistate Trust, LLC; Trustee for the Multistate Environmental Response Trust manages the former facility under a RCRA post-closure permit (MOD007129406) with the State of Missouri.

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

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

1. OUTFALL NO.	2. OPERATION(S) CONTRIBUTING FLOW		3. TREATMENT	
(LIST)	A. OPERATION (LIST)	B. AVERAGE FLOW (INCLUDE UNITS) (MAXIMUM FLOW)	A. DESCRIPTION	B. LIST CODES FROM TABLE A
001	Storm Water	403,200 gal/day for a 6" rain event	Discharge	4A
002	Storm Water	122,400 gal/day for a 6" rain event	Discharge	4A

2.40 CONTINUED

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

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

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

2.50 MAXIMUM PRODUCTION

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

☐ **YES** *(COMPLETE B.)* ☑ **NO** *(GO TO SECTION 2.60)*

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

☐ **YES** *(COMPLETE c.)* ☑ **NO** *(GO TO SECTION 2.60)*

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

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

2.60 IMPROVEMENTS

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

☐ **YES** *(COMPLETE THE FOLLOWING TABLE)* ☑ **NO** *(GO TO 3.00)*

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

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

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

3.00 INTAKE AND EFFLUENT CHARACTERISTICS

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

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

1. POLLUTANT	2. SOURCE	1. POLLUTANT	2. SOURCE
CRESOL	Creosote-Former WoodTreating		

3.10 BIOLOGICAL TOXICITY TESTING DATA

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

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

3.20 CONTRACT ANALYSIS INFORMATION

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

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

A. NAME	B. ADDRESS	C. TELEPHONE *(area code and number)*	D. POLLUTANTS ANALYZED *(list)*
Consulting Analytical Service International, Inc.	3378 South Scenic Avenue Suite A Springfield, MO 65807	(417) 882-1017	See First Quarter 2015 Analytical Report.

3.30 CERTIFICATION

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

NAME AND OFFICIAL TITLE (TYPE OR PRINT)	TELEPHONE NUMBER WITH AREA CODE
Tasha Lewis, Portfolio Manager	(602) 312-6993
SIGNATURE (SEE INSTRUCTIONS)	DATE SIGNED
Tasha Lewis	6/19/15

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

FORM C
TABLE 1 FOR 3.00 ITEM A AND B

INTAKE AND EFFLUENT CHARACTERISTICS

OUTFALL NO. 001 / 002

PART A – You must provide the results of at least one analysis for every pollutant in this table. Complete one table for each outfall. See instructions for additional details.

1. POLLUTANT	2. EFFLUENT							3. UNITS *(specify if blank)*		4. INTAKE *(optional)*		
	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE *(if available)*		C. LONG TERM AVRG. VALUE *(if available)*		D. NO. OF ANALYSES	A. CONCEN-TRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO. OF ANALYSES
	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
A. Biochemical Oxygen Demand (BOD)												
B. Chemical Oxygen Demand (COD)	13 / 30						1 / 1	mg/L				
C. Total organic Carbon (TOC)												
D. Total Suspended Solids (TSS)												
E. Ammonia *(as N)*												
F. Flow	VALUE 37.4 / 11.4		VALUE		VALUE			gal/min		VALUE		
G. Temperature *(winter)*	VALUE 4 / 4 to 16 / 17		VALUE		VALUE		since 2011	°C		VALUE		
H. Temperature *(summer)*	VALUE 12 / 11 to 22 / 23		VALUE		VALUE		since 2011	°C		VALUE		
I. pH	MINIMUM	MAXIMUM 7.36 / 7.9	MINIMUM	MAXIMUM			1 / 1	STANDARD UNITS				

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

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

1. POLLUTANT AND CAS NUMBER *(if available)*	2. MARK "X"		3. EFFLUENT							4. UNITS		5. INTAKE *(optional)*		
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE *(if available)*		C. LONG TERM AVRG. VALUE *(if available)*		D. NO. OF ANALYSES	A. CONCEN-TRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
G. Nitrogen, Total Organic *(as N)*		X / X												
H. Oil and Grease		X / X	<5.2 / <5.1						1 / 1	mg/L				
I. Phosphorus *(as P)*, Total (7723-14-0)		X / X												
J. Sulfate *(as SO^4)* (14808-79-8)		X / X												
K. Sulfide *(as S)*		X / X												
L. Sulfite (as SO^3) (14265-45-3)		X / X												
M. Surfactants		X / X												
N. Aluminum, Total (7429-90-5)		X / X												
O. Barium, Total (7440-39-3)		X / X												
P. Boron, Total (7440-42-8)		X / X												
Q. Cobalt, Total (7440-48-4)		X / X												
R. Iron, Total (7439-89-6)		X / X												
S. Magnesium, Total (7439-95-4)		X / X												
T. Molybdenum, Total (7439-98-7)		X / X												
U. Manganese, Total (7439-96-5)		X / X												
V. Tin, Total (7440-31-5)		X / X												
W. Titanium, Total (7440-32-6)		X / X												

1. POLLUTANT AND CAS NUMBER (if available)	2. MARK "X"		3. EFFLUENT							4. UNITS		5. INTAKE (optional)		
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (if available)		C. LONG TERM AVRG. VALUE (if available)		D. NO. OF ANALYSES	A. CONCEN-TRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO. OF ANALYSES
			(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
METALS, AND TOTAL PHENOLS														
1M. Antimony, Total (7440-36-9)		X												
2M. Arsenic, Total (7440-38-2)		X												
3M. Beryllium, Total (7440-41-7)		X												
4M. Cadmium, Total (7440-43-9)		X												
5M. Chromium III (16065-83-1)		X												
6M. Chromium VI (18540-29-9)		X												
7M. Copper, Total (7440-50-8)		X												
8M. Lead, Total (7439-92-1)		X												
9M. Mercury, Total (7439-97-6)		X												
10M. Nickel, Total (7440-02-0)		X												
11M. Selenium, Total (7782-49-2)		X												
12M. Silver, Total (7440-22-4)		X												
13M. Thallium, Total (7440-28-0)		X												
14M. Zinc, Total (7440-66-6)		X												
15M. Cyanide, Amenable to Chlorination		X												
16M. Phenols, Total		X	<5.0 / <5.0						1 / 1	ug/L				
RADIOACTIVITY														
(1) Alpha Total		X												
(2) Beta Total		X												
(3) Radium Total		X												
(4) Radium 226 Total		X												

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

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

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

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

1.10 and 1.20 Self-explanatory.

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

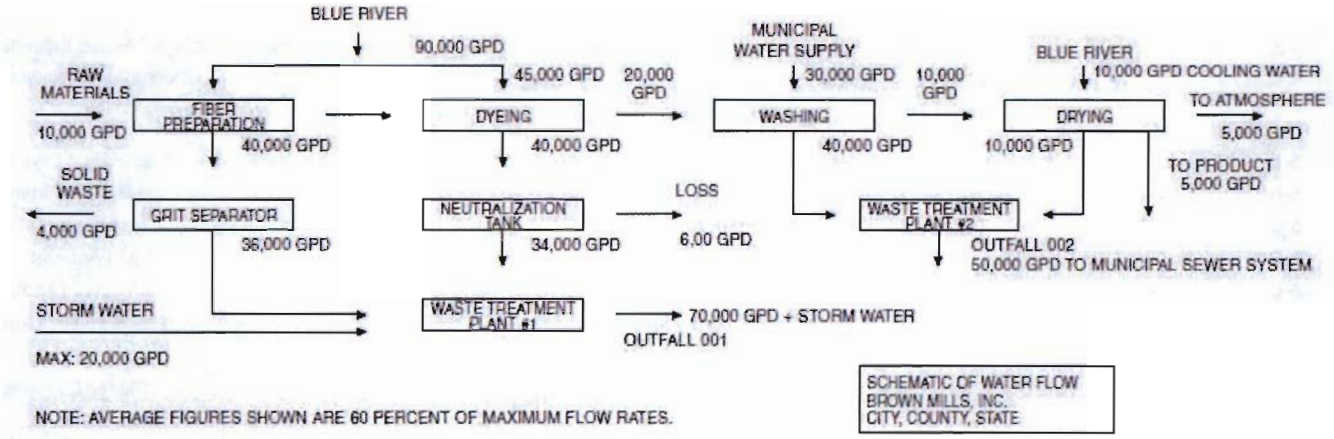
SIC code numbers are descriptions that may be found in the "Standard Industrial Classification Manual" prepared by the Executive Office of the President, Office of Management and Budget, that is available from the Government Printing Office, Washington, D.C. Use the current edition of the manual. If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

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

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

2.30 Self-explanatory.

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



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

TABLE A – CODES FOR TREATMENT UNITS

PHYSICAL TREATMENT PROCESSES

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

CHEMICAL TREATMENT PROCESSES

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

BIOLOGICAL TREATMENT PROCESSES

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

OTHER PROCESSES

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

SLUDGE TREATMENT AND DISPOSAL PROCESSES

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

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

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

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

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

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

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

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

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

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

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

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

CONCENTRATION		MASS	
ppm	parts per million	lbs	pounds
mg/L	milligrams per liter	ton	tons (English tons)
ppb	parts per billion	mg	Milligrams
ug/L	micrograms per liter	g	grams
		kg	kilograms
		T	tonnes (metric tons)

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

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

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

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

Grab and composite samples are defined as follows:

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

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

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

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

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

1. A statement that the intake water is drawn from the body of water into which the discharge is made. (Otherwise, you are not eligible for net limitations.)

2. A statement of the extent to which the level of the pollutant is reduced by treatment of your wastewater. (Your limitations will be adjusted only to the extent that the pollutant is not removed.)

3. When applicable, a demonstration of the extent to which the pollutants in the intake vary physically, chemically, or biologically from the pollutants contained in your discharge. For example, when the pollutant represents a class of compounds. Your limitations will be adjusted only to the extent that the intake pollutants do not vary from the discharged pollutants.

3.00 Part A must be completed by all applicants for all outfalls, including outfalls containing only noncontact cooling water or storm runoff. However, at your request, the Missouri Department of Natural Resources may waive the requirements to test for one or more of these pollutants, upon a determination that testing for the pollutant(s) is not appropriate for your effluent.

Use composite samples for all pollutants in this part, except use grab samples for pH and temperature. See discussion in instructions above for definitions of the columns in Part A. The "Long Term Average Values" column (column 2C) and "Maximum 30 Day Values" column (column 2B) are not compulsory but should be filled out if data is available.

3.00 Part B must be completed by all applicants for all outfalls, including outfalls containing only noncontact cooling water or storm runoff.

Use composite samples for all pollutants you analyze for in this part, except use grab samples for residual chlorine, oil and grease and fecal coliform. The Long Term Average Values column (column 3C) and Maximum 30 Day Values column (column 3B) are not compulsory but should be filled out if data is available.

3.00 List any pollutants in Table B that you believe to be present and explain why you believe them to be present in part C. No analysis is required, but you have analytical, you must report it.

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

TOXIC POLLUTANT

Asbestos

HAZARDOUS SUBSTANCES

Acetaldehyde
Allyl alcohol
Allyl chloride
Amyl acetate
Aniline
Benzonitrile
Benzyl chloride
Butyl acetate
Butylamine
Captan

HAZARDOUS SUBSTANCES

Dichlorvos
Diethylamine
Dimethylamine
Dintrobenzene
Diquat
Disulfoton
Diuron
Epichlorohydrin
Ethion
Ethylene diamine
Ethylene dibromide
Formaldehyde
Furfural
Guthion

HAZARDOUS SUBSTANCES

Nalad
Napthenic acid
Nitrotoluene
Parathion
Phenolsulfonate
Phosgene
Propargite
Propylene oxide
Pyrethrins
Quinoline
Resorcinol
Strontium
Strychnine
Sytrene

TABLE B – (continued)

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

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

3.20 Self-explanatory.

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

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

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

A. For a corporation, by an officer having responsibility for the overall operation of the regulated facility or activity or for environmental matters.

B. For a partnership or sole proprietorship, by a general partner or the proprietor.

C. For a municipal, state, federal or other public facility, by either a principal executive officer or by an individual having overall responsibility for environmental matters at the facility.

SCHEMATIC OF WATER FLOW
TRONOX LLC - SPRINGFIELD FACILITY
SPRINGFIELD, GREENE COUNTY, MISSOURI

OUTFALL 001

STORMWATER→→→

GETG
Greenfield Environmental Trust Group, Inc.

Greenfield Environmental Multistate Trust LLC
Trustee of the Multistate Environmental Response Trust
Greenfield Environmental Trust Group, Inc., Member
2824 E Donner Drive, Phoenix AZ 85042
Telephone: (602) 312-6993
tl@g-etg.com

April 24, 2015

Via FedEx

Mr. Chris Ray
Missouri Department of Natural Resources
Southwest Regional Office
2040 W. Woodland, Springfield, Missouri 65807-5912

Re: Submission of First Quarter 2015 Stormwater Discharge Monitoring Report
NPDES Permit Number MO-0117331
Former Tronox Facility, 2800 West High Street, Springfield, Missouri

Dear Mr. Ray:

Greenfield Environmental Multistate Trust LLC, Trustee of the Multistate Environmental Response Trust (the "Multistate Trust"), respectfully submits the First Quarter 2015 Stormwater Discharge Monitoring for the Former Tronox Facility located at 2800 West High Street, Springfield, Missouri.

Sampling was done at Outfalls #001 and #002, as required by Missouri State Operating Permit MO-0117331, and at Outfall #3 (discharge from Woodlawn Spring), as requested by Missouri Department of Natural Resources (MoDNR) Hazardous Waste Program. First quarter 2015 surface water field measurements and sampling were conducted on March 27, 2015 following a 12-hour period during which approximately 0.8-inches of rainfall occurred. The estimated flows from Outfalls #001 and #002 are based on local rainfall data and a discharge correlation that was developed by the former site operator before facility flow meters were removed. With MoDNR approval, the Multistate Trust continues to estimate flows in this manner. Results are provided in the attached "First Quarter 2015 Stormwater Outfall Information."

Surface water samples were analyzed for permit-identified chemicals of interest by Consulting Analytical Services International (CASI), Springfield, Missouri. No semi-volatile organic compounds (SVOCs), oil & grease, and inorganic constituents were detected above the laboratory reporting limits or the required permit limits. All water quality parameters were in compliance with their respective permit limits. Laboratory analytical results are attached. Reported pH was 7.36 for Outfall #001, 7.9 for Outfall #002 and 6.9 for Outfall #003 as measured by the sample technician and noted on the chain of custody for each sample.

The permit indicates that WET Testing is to be conducted annually on stormwater collected from Outfall #002. However, based on a December 6, 2011, conference call with Leasue Myers and Chris Ray, MoDNR indicated that it would be more appropriate to test stormwater at Outfall #001 since a majority of the property that had environmental impacts drains to Outfall #001. WET testing was last conducted on stormwater collected from Outfall #001 on December 14, 2011. Results indicated that the sample passed, or survival was observed in 95%

and 100%, respectively, for *Ceriodaphnia* and Fathead minnow. The Multistate Trust has requested and Joy Johnson at the MoDNR is in the process of approving a permit modification to reduce the frequency of WET testing to once every four years. The next WET test sampling event is tentatively scheduled for December 2015.

If you have any questions or require any additional information, please do not hesitate to contact me at 602.312.6993 or via e-mail at tl@g-etg.com.

Sincerely,
Greenfield Environmental Multistate Trust LLC
Trustee of the Multistate Environmental Response Trust
By: Greenfield Environmental Trust Group, Inc., Member

Tasha Lewis
Portfolio Manager

Encl.
Cc: Marc Weinreich/Managing Principal, Multistate Trust
Lauri Gorton/Multistate Trust
Kathy Arnett/CH2M HILL
Scott Slagley/Tetra Tech
Joe Millikin/Tetra Tech

First Quarter 2015 Stormwater Outfall Information
Greenfield Environmental Multistate Trust LLC Property
Springfield, MO

Missouri State Operating Permit MO-0117331

Date of Sampling: March 27, 2015; 09:50 AM to 10:30 AM

Rainfall received in the 12 hours (hr) before sampling: 0.8 inches

Outfall #001 (09:50 AM CDT)

Contributing Basin:	33 acres (estimated)
Estimated Flow:	37.4 gallons/minute (24-hr average), (0.05 million gallons per day [MGD])

Outfall #002 (10:10 AM CDT)

Contributing Basin:	11 acres (estimated)
Estimated Flow:	11.4 gallons/minute (24-hr average), (0.02 MGD)

Outfall #003 (10:30 AM CDT)

Contributing Basin:	not applicable
Estimated Flow:	not applicable

Notes:

- Flow is a monitoring requirement only with no effluent limits.
- Rainfall is monitored and recorded in an onsite rain gage.
- Flow meters no longer exist. Estimated flow is determined from historical flow meter data recorded when the plant was operating.
- Based on the historical data, each 1.0 inch of rainfall resulted in:
  Outfall #001: approximately 67,200 gallons of discharge in 24 hours (46.7 gallon/minute), and
  Outfall #002: approximately 20,400 gallons of discharge in 24 hours (14.2 gallon/minute)
- Outfall #003 is not identified in the permit. It is a groundwater discharge that is monitored at the request of MoDNR.

CONSULTING
CANALYTICAL
SERVICES
SINTERNATIONAL

2804 E. BATTLEFIELD ROAD
SPRINGFIELD, MO 65804-4014
417.882.1017
417.882.1018
info@casilab.com

CERTIFICATE OF ANALYSIS

April 14, 2015

GREENFIELD ENVIRONMENTAL MULTISTATE TRUST, LLC
TRUSTEE OF THE MULTISTATE ENVIRONMENTAL RESPONSE TRUST
C/O CH2M HILL
MR. GARTH COLVIN
7927 NEMCO WAY, SUITE 120
BRIGHTON, MI 48116

Re: CaSi File/Case/Log: 0095/150745-0747/3636

Please refer to the following page(s) for results of analysis.

Laboratory analyses were performed on samples utilizing procedures published in Title 40 of the Code of Federal Regulations, Parts 136 or 141, or in EPA Publication SW-846, 3rd edition, September 1986, and the latest promulgated update. Data qualifiers may be appended to this report. The appendix is an integral part of this report.

All results are reported on a wet weight basis, unless otherwise noted.

Samples are maintained in the laboratory for fourteen (14) days following issuance of the final report, unless an alternate arrangement is agreed to in writing. All samples determined to be hazardous, or which may not be disposed to the publicly owned treatment works (POTW) or to the sanitary landfill, will be returned to you for proper disposal.

Thank you for utilizing Consulting Analytical Services International, Inc. If you have any questions or require assistance, please contact me at 417.882.1017.

Consulting Analytical Services International, Inc.

Tara Ruff

TARA RUFF
VP/General Manager

CaSi
CONSULTING ANALYTICAL SERVICES INTERNATIONAL
2804 EAST BATTLEFIELD · SPRINGFIELD, MISSOURI 65804-4014 · 417.882.1017 · 417.882.1018

GREENFIELD ENVIRONMENTAL MULTISTATE TRUST, LLC.
Re: CaSi File/Case/Log: 0095/150745-0747/3636
Sample Received: 03-27-15, 11:28

April 14, 2015

FORMER KERR MCGEE – SPRINGFIELD MO. STORMWATER OUTFALLS 001, 002 AND 003 FOR 1ST QUARTER, 2015.

CONTROL NUMBER		150745	150746	150747	FLAG	UNITS	ANALYSIS DATE	ANALYSIS TIME
SAMPLE DESCRIPTION		OUTFALL 001 03-27-15 09:50	OUTFALL 002 03-27-15 10:10	OUTFALL 003 03-27-15 10:30				
PARAMETER	METHOD							
Total Settleable Solids	SM 2540 F	<0.05	<0.05	<0.05		ml/l/hr	03-27-15	14:25
Chemical Oxygen Demand	SM 5220 C	13	30	<10		mg/l	04-07-15	18:07
Oil and Grease	EPA 1664 A	<5.2	<5.1	<5.1		mg/l	04-09-15	18:39
Acenaphthene	EPA 625	<5.0	<5.0	<5.0		ug/l	04-08-15	17:09
Anthracene	EPA 625	<5.0	<5.0	<5.0		ug/l	04-08-15	17:09
Fluorene	EPA 625	<5.0	<5.0	<5.0		ug/l	04-08-15	17:09
o-Cresol	EPA 625	<5.0	<5.0	<5.0		ug/l	04-08-15	17:09
Acenaphthylene	EPA 625	<5.0	<5.0	<5.0		ug/l	04-08-15	17:09
Benzene	EPA 602	<0.5	<0.5	<0.5		ug/l	03-31-15	22:47
Benzo (a) Anthracene	EPA 625	<5.0	<5.0	<5.0		ug/l	04-08-15	17:09
Benzo (a) Pyrene	EPA 625	<5.0	<5.0	<5.0		ug/l	04-08-15	17:09
Benzo (k) Fluoranthene	EPA 625	<5	<5	<5		ug/l	04-08-15	17:09
2-Chlorophenol	EPA 625	<5.0	<5.0	<5.0		ug/l	04-08-15	17:09
Chrysene	EPA 625	<5.0	<5.0	<5.0		ug/l	04-08-15	17:09
2,4-Dinitrophenol	EPA 625	<25	<25	<25		ug/l	04-08-15	17:09
2,4- and 2,5-Dimethylphenol	EPA 625	<10	<10	<10		ug/l	04-08-15	17:09
Dibenzo (a,h) Anthracene	EPA 625	<5.0	<5.0	<5.0		ug/l	04-08-15	17:09
Ethylbenzene	EPA 625	<0.5	<0.5	<0.5		ug/l	03-31-15	22:47
Fluoranthene	EPA 625	<5.0	<5.0	<5.0		ug/l	04-08-15	17:09
Guaiacol	EPA 602	<10	<10	<10		ug/l	04-08-15	17:09
Indeno (1,2,3-cd) Pyrene	EPA 602	<5.0	<5.0	<5.0		ug/l	04-08-15	17:09
Naphthalene	EPA 602	<5.0	<5.0	<5.0		ug/l	04-08-15	17:09
Phenol	EPA 602	<5	<5	<5		ug/l	04-08-15	17:09
Toluene	EPA 602	<0.5	<0.5	<0.5		ug/l	03-31-15	22:47
Xylenes, total	EPA 625	<1.5	<1.5	<1.5		ug/l	03-31-15	22:47

Tara Ruff

CaSi

CHAIN OF CUSTODY DOCUMENTATION

(PLEASE DO NOT WRITE IN SHADED AREAS)

CONSULTING ANALYTICAL SERVICES INTERNATIONAL INCORPORATED
2804 EAST BATTLEFIELD ROAD
SPRINGFIELD, MISSOURI 65804
PHONE: 417-882-1017
FAX: 417-882-1018
EMAIL: lberger@casilab.com
LISA C. BERGER, M.S., President

CLIENT: **Greenfield Environmental Multistate Trust, LLC**

FILE/CASE/LOG: 0095/150745/3636

MAILING ADDRESS:

PROJECT DESCRIPTION: Former Kerr-McGee Facility Storm 001

PHONE: FAX:
EMAIL:

SAMPLED BY: J David Settles

SHIPPING ADDRESS:

STANDARD ☒ (2-3 WEEKS) PRIORITY ☐ (7 WORKING DAYS) EMERGENCY ☐ (3 WORKING DAYS)

TIME OUT/IN:

REPORT TO: P.O. #

pH 7.36 TEMP 8.9 °C DATE: 03-27-15 TIME: 0950

PERMIT #

LAB USE ONLY: COOLER ☒ BOX ☐ MAIL ☐ COURIER ☐ WALK IN ☒ OTHER ☐

PACKING: Jersey LABELS: yes COOLER NUMBER Client

BROKEN/LEAKING CONTAINERS ☐ VOA BUBBLES ☐ SEAL ☐ INTACT ☐

SAMPLE ON CHAIN NOT RECEIVED ☐ PRESERVATIVE ADEQUATE Y ☐ N ☐

DISCREPANCIES: COOLER TEMP: °C

FLOW DATA:

CHLORINE:

CONTROL NO.

REMARKS:

SAMPLE DATA						CONTAINER DATA			ANALYTICAL TESTS REQUESTED															
DESCRIPTION (Effluent, Stormwater, Sludge)	DATE Collected	TIME Collected	G	C	M C	TYPE Milliliters	#	PRESERVATIVE	Chemical Oxygen Demand	Total Settleable Solids	Oil and Grease	PNAs (8270C)	Acid Extractables	BTEX										
Stormwater NPDES	3-27-15	0950	X			125 P	1	H_2SO_4	X															
Outfall 001			X			1000 P	1	None		X														
			X			1000 G	1	HCl			X													
			X			1000 G	1	Amber				X	X											
			X			40 G	3	HCl/amber						X										

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
J David Settles	03/27/15	11:28	[illegible]				
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)

SAMPLES ARE DISCARDED SOON AFTER ANALYSIS, UNLESS PRIOR ARRANGEMENTS ARE MADE. SAMPLES THAT CANNOT BE DISPOSED TO THE POTW, OR SANITARY LANDFILL WILL BE RETURNED TO THE CLIENT.

CaSi

CHAIN OF CUSTODY DOCUMENTATION

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EMAIL: lberger@casilab.com
LISA C. BERGER, M.S., President

CLIENT: **Greenfield Environmental Multistate Trust, LLC**

FILE/CASE/LOG: **0095/** 150746/3636

MAILING ADDRESS:

PROJECT DESCRIPTION: Former Kerr-McGee Facility Storm 002

PHONE: FAX:
EMAIL:

SAMPLED BY: J DAVID SETTLES

SHIPPING ADDRESS:

STANDARD ☒ (2-3 WEEKS) PRIORITY ☐ (7 WORKING DAYS) EMERGENCY ☐ (3 WORKING DAYS)

TIME OUT/IN:

REPORT TO: P.O. #

pH 7.9 TEMP 7.6 DATE: 03-27-15 TIME: 1010

PERMIT #

LAB USE ONLY: COOLER ☒ BOX ☐ MAIL ☐ COURIER ☐ WALK IN ☒ OTHER ☐

PACKING: ICE PAB LABELS: YES COOLER NUMBER Client

BROKEN/LEAKING CONTAINERS ☐ VOA BUBBLES ☐ SEAL ☐ INTACT ☐

SAMPLE ON CHAIN NOT RECEIVED ☐ PRESERVATIVE ADEQUATE Y ☐ N ☐

DISCREPANCIES: COOLER TEMP: °C

FLOW DATA:

CHLORINE:

CONTROL NO.

SAMPLE DATA						CONTAINER DATA			ANALYTICAL TESTS REQUESTED																	
DESCRIPTION (Effluent, Stormwater, Sludge)	DATE Collected	TIME Collected	G	C	M C	TYPE Milliliters	#	PRESERVATIVE	Chemical Oxygen Demand	Total Settleable Solids	Oil and Grease	PNAs (8270C)	Acid Extractables	BTEX												
Stormwater NPDES	3-27-15	1010	X			125 P	1	H_2SO_4	X																	
Outfall 002			X			1000 P	1	None		X																
			X			1000 G	1	HCl			X															
			X			1000 G	1	Amber				X	X													
			X			40 G	3	HCl/amber						X												

REMARKS:

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
J David Settles	03/27/15	11:28	[illegible]				
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)

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LISA C. BERGER, M.S., President

CLIENT: **Greenfield Environmental Multistate Trust, LLC**

FILE/CASE/LOG: **0095/** 150747/3636

MAILING ADDRESS:

PROJECT DESCRIPTION: Former Kerr-McGee Facility Storm 003

PHONE: FAX:
EMAIL:

SAMPLED BY: J DAVID SETTLES

SHIPPING ADDRESS:

STANDARD ☒ (2-3 WEEKS) PRIORITY ☐ (7 WORKING DAYS) EMERGENCY ☐ (3 WORKING DAYS)

TIME OUT/IN:

REPORT TO: P.O. #

pH 6.90 TEMP 12.6 DATE: 03-27-15 TIME: 1030

PERMIT #

LAB USE ONLY: COOLER ☒ BOX ☐ MAIL ☐ COURIER ☐ WALK IN ☒ OTHER ☐

PACKING: LABELS: yes COOLER NUMBER CaSi

BROKEN/LEAKING CONTAINERS ☐
VOA BUBBLES ☐

SEAL ☐ INTACT ☐

SAMPLE ON CHAIN NOT RECEIVED ☐

PRESERVATIVE ADEQUATE Y ☐ N ☐

DISCREPANCIES:

COOLER TEMP: °C

FLOW DATA:

CHLORINE:

REMARKS:

CONTROL NO.

SAMPLE DATA						CONTAINER DATA			ANALYTICAL TESTS REQUESTED															
DESCRIPTION (Effluent, Stormwater, Sludge)	DATE Collected	TIME Collected	G	C	M C	TYPE Milliliters	#	PRESERVATIVE	Chemical Oxygen Demand	Total Settleable Solids	Oil and Grease	PNAs (8270C)	Acid Extractables	BTEX										
Stormwater NPDES	3-27-15	1030	X			125 P	1	H_2SO_4	X															
Outfall 003			X			1000 P	1	None		X														
			X			1000 G	1	HCl			X													
			X			1000 G	1	Amber				X	X											
			X			40 G	3	HCl/amber						X										

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
J David Settles	03/27/15	11:28	[illegible]				
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)

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APPENDIX

MDL	Method Detection Limit.
B	Analyte is also present in the method blank or load blank. The reported sample concentration has been blank corrected.
BF	The daily bromoform breakdown check for this QC batch and required for the trap used for this analysis did not meet the breakdown criteria.
C	Due to matrix interference(s) and/or high concentration(s) of analyte(s) present in the sample, dilution was required causing the spike level for the analyte to be below the reporting limit and/or below the lowest point of the calibration curve.
CC	This analyte is a method CCC compound and did not meet the continuing calibration method criteria.
CH	The continuing calibration verification (CCV) standard recovery for this analyte was above the method or SOP limit. The reported sample concentration may be biased high.
CL	The continuing calibration verification (CCV) standard recovery for this analyte was below the method or SOP limit. The reported sample concentration may be biased low.
CS	Client Supplied Field Data.
DS	Both diesel and kerosene range hydrocarbons were detected, however, due to the inherent overlapping hydrocarbons of the diesel and kerosene ranges, the sample result has been calculated and reported as kerosene.
E	Concentration or reporting limit is an estimated value. Matrix interferences and/or sample heterogeneity were noted at the time of sample analysis.
EB	BOD sample dilutions did not meet the "two and one" rule. The reported concentration is an estimated value.
EC	Exceeds method control limits. The reported concentration is an estimated value.
ED	Due to matrix interferences, dilution of the sample was required. Detectable amounts in the sample were not within optimal quantification range of calibration.
EO	Due to low sample dissolved oxygen, dilution of the sample was required. Sample dilutions did not meet the "two and one" rule. The reported concentration is an estimated value.
EM	Microbiological sample dilutions did not produce colony densities falling in the ideal range. The reported concentration is an estimated value.
EV	Using the recommended analytical procedure, this analyte routinely yields low and/or variable recoveries. The stated reporting limit or concentration is an estimated value.
G	The reported concentration includes a significant amount of individual compound(s) at concentrations not typically found in petroleum hydrocarbon patterns.
H	Sample holding time exceeded.
HP	Regulatory preparation holding time for this analysis was exceeded.
HS	Headspace was present in VOC vial with a bubble size greater than approximately 6mm in diameter.
IC	The calibration curve for this analyte did not meet the method calibration criteria. The reported sample concentration is estimated.
IL	Due to matrix interference(s), one or more internal standards for this analysis were below the method control limit. The reported sample concentration may be biased high.
IV	The initial calibration verification (ICV) standard for this analyte was above the method or SOP limit. The reported sample concentration is estimated.
IX	Due to matrix interferences, the surrogate(s) and/or MS/MSD analyte(s) did not meet method qualitative criteria or were subject to chromatographic peak distortion(s). The reported sample concentration for each analyte is estimated.
IY	The initial calibration verification (ICV) standard recovery for this analyte was below the method or SOP limit. The reported sample concentration is estimated.
JC	The reporting limit standard for this analyte was not included in the calibration curve. The result or non-detect value is an estimated value above the MDL. A detectable result has not been verified quantitatively.
L	Reporting limit higher than normal due to limited sample volume available.
LL	The Laboratory Control Sample (LCS) recovery for this analyte was below the method or laboratory quality control limit. The reported sample concentration may be biased low.
LH	The Laboratory Control Sample (LCS) recovery for this analyte was above the method or laboratory quality control limit. The reported sample concentration may be biased high.
LM	The Laboratory Control Sample for this analyte was not within the laboratory or method quality control limit. The recovery was within one standard deviation of the limit. This marginal exceedence is statistically likely and acceptable by NELAC.
M	Reporting limit higher than normal due to matrix interferences.
MB	The Matrix Spike and Matrix Spike Duplicate for this analyte were below the method or laboratory control limit. The reported sample concentration is estimated.
MH	The MS and/or MSD recovery for this analyte was above the method or laboratory control limit. The reported sample concentration is estimated.
MI	Due to sample heterogeneity and/or sample matrix interferences, the MS and/or MSD recovery for this analyte did not meet the method or laboratory control limits. The reported sample concentration is estimated.
ML	The MS and/or MSD recovery for this analyte was below the method or laboratory control limit. The reported sample concentration is estimated.
MP	The MS/MSD recoveries for this analyte exceeded the method or laboratory precision control limit. The reported sample concentration is estimated.
MV	An MS/MSD was performed on this sample and the spike level was insignificant relative to the concentration of the analyte in the sample and/or sample heterogeneity was noted at the time of analysis. Reported concentration is an estimated value.
OC	The response for this analyte exceeded the calibration range of the instrument.
P	Exceeds quality control limits. Insufficient sample volume remained for duplicate preparation and analysis.
PF	The MS and/or MSD for this sample did not meet laboratory control limits. The PDS (post-digested spike) did not meet method criteria. The reported sample concentration is estimated.
RB	Reported concentration is below the reporting limit but within the instrument calibration range and above the calculated MDL.
SI	One or more surrogate recoveries for this analysis were not within the method or laboratory control limits. The sample result(s) or reporting limit(s) for this analysis are estimated due to sample heterogeneity and/or sample matrix interferences.
SL	The surrogate recovery for this analysis was below the method or laboratory control limits. The reported sample concentration may be biased low.
X	This sample does not match the typical chromatographic pattern for this petroleum product.
Y	Recommended sample preservation procedure was not followed or was inadequate to this sample matrix.
C3	Sulfuric acid (Method 3665A), florisil slurry (EPA-600/4-81-045), and copper (Method 3660B) clean-ups were performed on this sample and all applicable batch QC samples.

Stormwater Pollution Prevention Plan MO-0117331

Greenfield Environmental Multistate Trust LLC Property – Springfield MO

STORMWATER FEATURE INSPECTION AND MAINTENANCE REPORT FOR 2015

	Q1	Q2	Q3	Q4
Inspection Dates	03-27-15			
Inspection By	J David Sotta			

Stormwater Feature		Inspection Results: No Visible Evidence of Problems (check)	Description of Problem Observed (add sheets as needed)
Outfall #001 (inspect for visible evidence of spills/leaks)	Q1	✓	
	Q2		
	Q3		
	Q4		
Outfall #002 (inspect for visible evidence of spills/leaks)	Q1	✓	
	Q2		
	Q3		
	Q4		
Outfall #003 (observe for visible evidence of oil in discharge)	Q1	✓	
	Q2		
	Q3		
	Q4		
East and West Ditches and Stormwater Pond (inspect for visible evidence of accumulation of debris that might interfere with stormwater runoff)	Q1	✓	
	Q2		
	Q3		
	Q4		
Recovered groundwater pipeline route (inspect for visible evidence of leaks)	Q1	✓	
	Q2		
	Q3		
	Q4		
Water treating building and creosote load-out location (inspect for visible evidences of spills/leaks)	Q1	✓	
	Q2		
	Q3		
	Q4		
Full limits of 68-acre property (inspect for visible evidence of damage caused by natural causes or vandalism, and trash accumulation)	Q1	✓	
	Q2		
	Q3		
	Q4		
Maintenance equipment storage	Q1	✓	
	Q2		
	Q3		
	Q4		

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CHAIN OF CUSTODY DOCUMENTATION

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EMAIL: lberger@casilab.com
LISA C. BERGER, M.S., President

CLIENT: Greenfield Environmental Multistate Trust, LLC

FILE/CASE/LOG: 0095/150745/3636

MAILING ADDRESS:

PROJECT DESCRIPTION: Former Kerr-McGee Facility Storm 001

PHONE: FAX:
EMAIL:

SAMPLED BY: J David Settles

SHIPPING ADDRESS:

STANDARD ☒ (2-3 WEEKS) PRIORITY ☐ (7 WORKING DAYS) EMERGENCY ☐ (3 WORKING DAYS)

TIME OUT/IN:

REPORT TO: P.O. #

pH 7.36 TEMP 8.9 c DATE: 03-27-15 TIME: 0950

PERMIT #

LAB USE ONLY: COOLER ☒ BOX ☐ MAIL ☐ COURIER ☐ WALK IN ☒ OTHER ☐

PACKING: Fresh LABELS: yes COOLER NUMBER Client

BROKEN/LEAKING CONTAINERS ☐
VOA BUBBLES ☐

SEAL ☐ INTACT ☐

SAMPLE ON CHAIN NOT RECEIVED ☐

PRESERVATIVE ADEQUATE Y ☐ N ☐

DISCREPANCIES:

COOLER TEMP: °C

FLOW DATA:

CHLORINE:

CONTROL NO.

REMARKS:

SAMPLE DATA						CONTAINER DATA			ANALYTICAL TESTS REQUESTED																
DESCRIPTION (Effluent, Stormwater, Sludge)	DATE Collected	TIME Collected	G	C	M C	TYPE Milliliters	#	PRESERVATIVE	Chemical Oxygen Demand	Total Settleable Solids	Oil and Grease	PNAs (8270C)	Acid Extractables	BTEX											
Stormwater NPDES	[redacted]	0950	X			125 P	1	H_2SO_4	X																
Outfall 001			X			1000 P	1	None		X															
			X			1000 G	1	HCl			X														
			X			1000 G	1	Amber				X	X												
			X			40 G	3	HCl/amber						X											

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
J David Settles	03/27/15	11:28	[signature]				
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)

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EMAIL: lberger@casilab.com
LISA C. BERGER, M.S., President

CLIENT: Greenfield Environmental Multistate Trust, LLC

FILE/CASE/LOG: 0095/ 150746/3636

MAILING ADDRESS:

PROJECT DESCRIPTION: Former Kerr-McGee Facility Storm 002

PHONE: FAX:
EMAIL:

SAMPLED BY: J DAVID SETTLES

SHIPPING ADDRESS:

STANDARD ☒ (2-3 WEEKS) PRIORITY ☐ (7 WORKING DAYS) EMERGENCY ☐ (3 WORKING DAYS)

TIME OUT/IN:

REPORT TO: P.O. #

pH 7.9 TEMP 7.6 DATE: 03-27-15 TIME: 1010

PERMIT #

LAB USE ONLY: COOLER ☒ BOX ☐ MAIL ☐ COURIER ☐ WALK IN ☒ OTHER ☐

PACKING: ICE SAB LABELS: YES COOLER NUMBER Client

BROKEN/LEAKING CONTAINERS ☐
VOA BUBBLES ☐

SEAL ☐ INTACT ☐

SAMPLE ON CHAIN NOT RECEIVED ☐

PRESERVATIVE ADEQUATE Y ☐ N ☐

DISCREPANCIES:

COOLER TEMP: °C

FLOW DATA:

CHLORINE:

CONTROL NO.

REMARKS:

SAMPLE DATA						CONTAINER DATA			ANALYTICAL TESTS REQUESTED																
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Stormwater NPDES	[redacted]		X			125 P	1	H_2SO_4	X																
Outfall 002			X			1000 P	1	None		X															
			X			1000 G	1	HCl			X														
			X			1000 G	1	Amber				X	X												
			X			40 G	3	HCl/amber						X											

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
J David Settles	3/27/15	11:28	[signature]				
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)

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EMAIL: lberger@casilab.com
LISA C. BERGER, M.S., President

CLIENT: Greenfield Environmental Multistate Trust, LLC

FILE/CASE/LOG: 0095/ 150747/3636

MAILING ADDRESS:

PROJECT DESCRIPTION: Former Kerr-McGee Facility Storm 003

PHONE: FAX:
EMAIL:

SAMPLED BY: J David Sottles

SHIPPING ADDRESS:

STANDARD ☒ (2-3 WEEKS) PRIORITY ☐ (7 WORKING DAYS) EMERGENCY ☐ (3 WORKING DAYS)

TIME OUT/IN:

REPORT TO: P.O. #

pH 6.90 TEMP 12.6 DATE: 03-27-15 TIME: 1030

PERMIT #

LAB USE ONLY: COOLER ☒ BOX ☐ MAIL ☐ COURIER ☐ WALK IN ☒ OTHER ☐

PACKING: LABELS: yes COOLER NUMBER CaSi

BROKEN/LEAKING CONTAINERS ☐
VOA BUBBLES ☐
SEAL ☐ INTACT ☐

SAMPLE ON CHAIN NOT RECEIVED ☐
PRESERVATIVE ADEQUATE Y ☐ N ☐

DISCREPANCIES:
COOLER TEMP: °C

FLOW DATA:

CHLORINE:

CONTROL NO.

ANALYTICAL TESTS REQUESTED

REMARKS:

SAMPLE DATA						CONTAINER DATA			Chemical Oxygen Demand	Total Settleable Solids	Oil and Grease	PNAs (8270C)	Acid Extractables	BTEX
DESCRIPTION (Effluent, Stormwater, Sludge)	DATE Collected	TIME Collected	G	C	M C	TYPE Milliliters	#	PRESERVATIVE						
Stormwater NPDES	[illegible]	[illegible]	X			125 P	1	H_2SO_4	X					
Outfall 003			X			1000 P	1	None		X				
			X			1000 G	1	HCl			X			
			X			1000 G	1	Amber				X	X	
			X			40 G	3	HCl/amber						X

RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)
J David Sottles	03/27/15	11:28	[signature]				
RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)	RELINQUISHED BY: (SIGNATURE)	DATE	TIME	RECEIVED BY: (SIGNATURE)

SAMPLES ARE DISCARDED SOON AFTER ANALYSIS, UNLESS PRIOR ARRANGEMENTS ARE MADE. SAMPLES THAT CANNOT BE DISPOSED TO THE POTW, OR SANITARY LANDFILL WILL BE RETURNED TO THE CLIENT.

Quarterly Sampling and Visual Observation Form

Name of Facility: MST Springfield MO **MO Stormwater Permit** MO-0117331

Outfall Name: 001

Person(s)/Title(s) collecting sample: J DAVID SETTLES

Date & Time Discharge Began: 3-26 0300 **Date & Time Sample Collected:** 03-27-15 0950

Nature of Discharge: ☒ Rainfall ☐ Snowmelt

If rainfall, estimated amount: 0.8 inches over the previous 12 hours

Observations

Flow ☐ None ☒ Low ☐ Moderate ☐ High

Color ☒ None ☐ Other (describe)

Odor ☒ None ☐ Musty ☐ Sewage ☐ Sulfur ☐ Sour ☐ Petroleum/Gas ____
☐ Solvents ☐ Other (describe) ____

Clarity ☒ Clear ☐ Slightly Cloudy ☐ Cloudy ☐ Opaque ☐ Other ____

Floating Solids ☒ No ☐ Yes (describe) ____

Suspended Solids ☒ No ☐ Yes (describe) ____

Foam (gently shake sample) ☒ No ☐ Yes (describe) ____

Oil Sheen ☒ None ☐ Flecks ☐ Globs ☐ Sheen ☐ Other ____

Sampling Method: ☐ Dipped Sample Bottle ☐ Separate Dipper ☐ Other ____

Other Description of Flow and Outfall Condition

Temp 8.9
pH 7.36

Name: J DAVID SETTLES

Signature: J David Settles **Date:** 03-27-15

Quarterly Sampling and Visual Observation Form

Name of Facility: MST Springfield MO **MO Stormwater Permit** MO-0117331

Outfall Name: 002

Person(s)/Title(s) collecting sample: J DAVID SETTLES Field Tech

Date & Time Discharge Began: 3-26 0300 **Date & Time Sample Collected:** 03-27-15 1010

Nature of Discharge: ☒ Rainfall ☐ Snowmelt

If rainfall, estimated amount: 0.8 inches over the previous 12 hours

Observations

Flow ☐ None ☒ Low ☐ Moderate ☐ High

Color ☒ None ☐ Other (describe)

Odor ☒ None ☐ Musty ☐ Sewage ☐ Sulfur ☐ Sour ☐ Petroleum/Gas _____
☐ Solvents ☐ Other (describe) _____

Clarity ☐ Clear ☒ Slightly Cloudy ☐ Cloudy ☐ Opaque ☐ Other _____

Floating Solids ☒ No ☐ Yes (describe) _____

Suspended Solids ☒ No ☐ Yes (describe) _____

Foam (gently shake sample) ☒ No ☐ Yes (describe) _____

Oil Sheen ☒ None ☐ Flecks ☐ Globs ☐ Sheen ☐ Other _____

Sampling Method: ☐ Dipped Sample Bottle ☒ Separate Dipper ☐ Other _____

Other Description of Flow and Outfall Conditions

Temp 7.60
pH 7.90

Name: J DAVID SETTLES

Signature: J David Settles **Date:** 03-27-15

Quarterly Sampling and Visual Observation Form

Name of Facility: MST Springfield MO **MO Stormwater Permit** MO-0117331

Outfall Name: 003

Person(s)/Title(s) collecting sample: J DAVID SETTLES Field Tech

Date & Time Discharge Began: 3-26 0300 **Date & Time Sample Collected:** 03-27-15 0730

Nature of Discharge: ☒ Rainfall ☐ Snowmelt

If rainfall, estimated amount: 0.8 inches over the previous 12 hours

Observations

Flow ☐ None ☐ Low ☒ Moderate ☐ High

Color ☒ None ☐ Other (describe)

Odor ☒ None ☐ Musty ☐ Sewage ☐ Sulfur ☐ Sour ☐ Petroleum/Gas ____

☐ Solvents ☐ Other (describe) ____

Clarity ☒ Clear ☐ Slightly Cloudy ☐ Cloudy ☐ Opaque ☐ Other ____

Floating Solids ☒ No ☐ Yes (describe) ____

Suspended Solids ☒ No ☐ Yes (describe) ____

Foam (gently shake sample) ☒ No ☐ Yes (describe) ____

Oil Sheen ☒ None ☒ Flecks ☐ Globs ☐ Sheen ☐ Other ____

Sampling Method: ☐ Dipped Sample Bottle ☒ Separate Dipper ☐ Other ____

Other Description of Flow and Outfall Condition

Temp 12.6

pH 6.90

Name: J DAVID SETTLES

Signature: J David Settles **Date:** 03-27-15