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-0136514
Owner:	Gary & Carol Trump Trust
Address:	Rural Route 3, Box 83, Kahoka, MO 63445
Continuing Authority:	Same as above
Address:	Same as above
Facility Name:	TNT General Contracting, Inc.
Facility Address:	One half mile E of the intersection of US-136 and Main St., Kahoka, MO 63445
Legal Description:	NE ¼, NW ¼, Sec. 28, T65N, R7W, Clark County
UTM Coordinates:	X=612513, Y=4474211
Receiving Stream:	Unnamed tributary to Weaver Branch (U)
First Classified Stream and ID:	Fox River (P) (00038) 303(d) list
USGS Basin & Sub-watershed No.:	(07110001-040007)

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

FACILITY DESCRIPTION

Outfall #001 – Trucking Company and Intermediate Handler of Zinc-Bearing Materials - SIC #4213 and 2819
Industrial stormwater runoff / storage and handling of diatomaceous earth, lime, carbon, zinc-bearing materials, sugar, fertilizer, and manure / sawdust fill area / best management practices / stormwater retention basin
Actual flow is dependent upon precipitation.

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

May 20, 2011
Effective Date

Sara Parker Pauley, Director, Department of Natural Resources

May 19, 2016
Expiration Date

Irene Crawford, Regional Director, Northeast Regional Office

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective upon issuance and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:

OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
Outfall #001 (Note 1)						
Flow	MGD	*		*	once/month	24 hr. estimate
Biochemical Oxygen Demand$_5$ (BOD_5)	mg/L	*		*	once/quarter**	grab
Chemical Oxygen Demand (Note 2)	mg/L	*		*	once/quarter**	grab
Settleable Solids (Note 2)	mL/L/hr	*		*	once/quarter**	grab
Total Suspended Solids (Note 2)	mg/L	*		*	once/quarter**	grab
pH – Units (Note 2)	SU	*		*	once/quarter**	grab
Ammonia as N (NH_3) (Note 2)	mg/L	*		*	once/quarter**	grab
Temperature	°C	*		*	once/quarter**	grab
Conductivity	µS/cm at 25°C	*		*	once/quarter**	grab
Oil & Grease (Note 2)	mg/L	*		*	once/quarter**	grab
Hexavalent Chromium (Cr VI), Total Dissolved (Note 2)	mg/L	*		*	once/quarter**	grab
Copper (Cu), Total Dissolved (Note 2)	mg/L	*		*	once/quarter**	grab
Nickel (Ni), Total Dissolved (Note 2)	mg/L	*		*	once/quarter**	grab
Selenium (Se), Total Dissolved (Note 2)	mg/L	*		*	once/quarter**	grab
Zinc (Zn), Total Dissolved (Note 2)	mg/L	*		*	once/quarter**	grab
Sulfate + Chloride (Note 2)	mg/L	*		*	once/quarter**	grab
Hardness as $CaCO_3$, Total	mg/L	*		*	once/quarter**	grab
Precipitation (Note 3)	inches	*		*	daily	total
Cadmium (Cd), Total Dissolved (Note 2)	mg/L	*		*	once/quarter**	grab
Iron (Fe), Total Dissolved (Note 2)	mg/L	*		*	once/quarter**	grab
Phenols (Note 2)	mg/L	*		*	once/quarter**	grab
OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	DAILY MINIMUM	WEEKLY AVERAGE MINIMUM	MONTHLY AVERAGE MINIMUM	MEASUREMENT FREQUENCY	SAMPLE TYPE
Dissolved Oxygen	mg/L	*		*	once/quarter**	grab

MONITORING REPORTS SHALL BE SUBMITTED QUARTERLY; THE FIRST REPORT IS DUE OCTOBER 28, 2011. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective upon issuance and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:

OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
Outfall #001 (continued) (Note 1)						
Arsenic (As), Total Dissolved	mg/L	*		*	once/year***	grab
Trivalent Chromium (Cr III), Total Dissolved	mg/L	*		*	once/year***	grab
Mercury (Hg), Total Recoverable	mg/L	*		*	once/year***	grab
Lead (Pb), Total Dissolved	mg/L	*		*	once/year***	grab
MONITORING REPORTS SHALL BE SUBMITTED ANNUALLY; THE FIRST REPORT IS DUE OCTOBER 28, 2011.						
Whole Effluent Toxicity (WET) test	% Survival	See Special Conditions #14			twice/year****	grab
MONITORING REPORTS SHALL BE SUBMITTED SEMI-ANNUALLY; THE FIRST REPORT IS DUE JANUARY 28, 2012.						
Best Management Practices Plan	See 40 CFR 122.44 (k) & 10 CSR 20-6.200				Plan remains on-site, subject to inspection and updated no less than every 5 years	

B. STANDARD CONDITIONS

IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED PART I STANDARD CONDITIONS DATED October 1, 1980, AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

* Monitoring requirement only.

** Monitor only when a discharge occurs. Report as "no discharge" when a discharge does not occur during the reporting period. See table below for quarterly sampling:

Sample discharge at least once for the months of:		Report is due:
January, February, March	(1st Quarter)	April 28
April, May, June	(2nd Quarter)	July 28
July, August, September	(3rd Quarter)	October 28
October, November, December	(4th Quarter)	January 28

*** Monitor only when a discharge occurs. Report as "no discharge" when a discharge does not occur during the reporting period. Sampling must occur in the second quarter (April, May, or June). Submit the report by July 28 of each year.

**** Monitor only when a discharge occurs. Report as "no discharge" when a discharge does not occur during the reporting period. See table below for twice-per-year sampling:

Sample discharge at least once for the months of:		Report is due:
September or October	(2nd Six Months)	January 28
April or May	(1st Six Months)	July 28

Note 1 Stormwater samples shall be collected within the first 60 minutes of storm events of 0.1 inches or greater, that result in a discharge. Storm events include rainfall as well as run-off from the melting of frozen precipitation. Samples shall be collected prior to or at the property boundary or before the discharge enters waters of the state on the property.

Note 2 These parameters each have a benchmark limit. See Section C below for further information.

Note 3 Precipitation is to be monitored daily. The record may be obtained from a monitoring station within one mile from the facility. Submit the summary for the previous quarter with each DMR.

C. SAMPLING REQUIREMENTS, BENCHMARKS, AND REPORTING OF BENCHMARK EXCEEDANCES

1. The department may require additional sampling and reporting as a result of illegal discharges, compliance issues, complaint investigations, or evidence of off site impacts from activities at the facility. If such an action is needed, the department will specify in writing the sampling requirements, including such information as location and extent. It is a violation of this permit to fail to comply with said written notification.

2. This permit stipulates pollutant benchmarks applicable to the facility's discharge. The benchmarks do not constitute direct numeric effluent limitations. A benchmark exceedance alone, therefore, is not a permit violation. If a sample exceeds an effluent limitation or a benchmark concentration, the permittee must review the facility's Stormwater Pollution Prevention Plan (SWPPP) and associated Best Management Practices (BMPs) to determine whether any improvements and/or additional controls are needed to reduce that pollutant in the facility's stormwater discharge(s). Failure to review the SWPPP and determine whether BMPs need to be improved and implement the necessary changes at the facility in order to achieve compliance with Effluent and/or Benchmark limits is a permit violation.

3. The following Benchmarks are considered necessary to protect existing water quality. These shall be sampled as specified in "Table A" above. The BMPs at the facility shall be designed to meet these Benchmark limitations during rainfall events up to at least the 10-year, 24-hour precipitation event.

Parameter	**Benchmark Limits**
Chemical Oxygen Demand	90 mg/L
Total Settleable Solids	1.0 mL/L/hr
Total Suspended Solids	50 mg/L
pH	The benchmark limit shall be a range of 6.5 to 9.0 standard units as an instantaneous grab sample. The resulting pH is not to be averaged. An exceedance would be outside this range.
Ammonia as N (NH_3)	The benchmark limit shall be the resulting concentration of the equation for acute criteria, as found in 10 CSR 20-7.031, on page 29: $[0.411/(1+10^{(7.204-pH)})]+[58.4/(1+10^{(pH-7.204)})]$, where the pH is in standard pH units. Alternatively, the permittee may use Table B1 (Cool & Warm-Water Fisheries), on page 27 of 10 CSR 20-7.031. For example, the Ammonia benchmark limitation at a pH of 7.8 S.U. would be 12.1 mg/L.
Hexavalent Chromium (Cr VI), Total Dissolved	15 µg/L
Copper (Cu), Total Dissolved	The benchmark limit shall be the resulting concentration of the equation for acute criteria as found in 10 CSR 20-7.031, on page 21: $e^{((0.9422*\ln(Hardness)) - 1.700300)} * 0.960$ For a hardness of 162 mg/L, the benchmark limit would be 20 µg/L.
Nickel (Ni), Total Dissolved	The benchmark limit shall be the resulting concentration of the equation for acute criteria as found in 10 CSR 20-7.031, on page 21: $e^{((0.8460*\ln(Hardness)) - 2.255647)} * 0.998$ For a hardness of 162 mg/L, the benchmark limit would be 660 µg/L.
Selenium (Se), Total Dissolved	5 µg/L
Zinc (Zn), Total Dissolved	The benchmark limit shall be the resulting concentration of the equation for acute criteria as found in 10 CSR 20-7.031, on page 21: $e^{((0.8473*\ln(Hardness)) - 0.884)} * 0.98$ For a hardness of 162 mg/L, the benchmark limit would be 165 µg/L.
Sulfate + Chloride	1,000 mg/L
Cadmium, Total Dissolved	The benchmark limit shall be the resulting concentration of the equation for acute criteria as found in 10 CSR 20-7.031, on page 21: $e^{((1.0166*\ln(Hardness)) - 3.062490)} * (1.136672 - (\ln(Hardness)*0.041838))$ For a hardness of 162 mg/L, the benchmark limit would be 7.1 µg/L.
Dissolved Oxygen	5.0 mg/L as a minimum.
Iron (Fe), Total Dissolved	1,000 mg/L
Oil & Grease	10 mg/L
Phenol	100 µg/L

C. SAMPLING REQUIREMENTS, BENCHMARKS, AND REPORTING OF BENCHMARK EXCEEDANCES (continued)

4. If any of the sampling results from any of the outfalls show any exceedance of a numeric benchmark limitation listed within this permit, written notification shall be made to the Missouri Department of Natural Resources and submitted with the next Discharge Monitoring Report. Notification shall indicate the date(s) of sample collection, the analytical results, and permit number, and shall include a detailed statement concerning the revisions or modifications in BMPs that are being implemented to address the exceedance that occurred. Please also refer to Special Condition #11 for additional reporting concerning any event that may endanger health or the environment

   After an exceedance of a benchmark or effluent limitation, a sample of stormwater discharge resulting from the next rainfall greater than 0.1 inches (that occurs after implementing the necessary changes to BMPs) shall be collected from outfalls at which the exceedance occurred and for the parameter that was exceeded. Analytical results of this additional sample shall be submitted in writing to the Missouri Department of Natural Resources with the next DMR (this section supersedes Standard Conditions Part I, Section B: Noncompliance Notification).

D. 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. This permit does not authorize the discharge of waters other than stormwater.

3. Report as "no discharge" when a discharge does not occur during the reporting period. Reporting "no discharge" means that the permittee took reasonable action to ensure the outfall did not have a discharge at any time during the reporting period.

4. All outfalls must be clearly marked in the field.

5. Changes in Discharges of Toxic Substances

   The permittee shall notify the Director as soon as it knows or has reason to believe:
   (a) That any activity has occurred or will occur which would result in the discharge of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels:"
      (1) One hundred micrograms per liter (100 µg/L);
      (2) Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2,5 dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
      (3) Five (5) times the maximum concentration value reported for the pollutant in the permit application;
      (4) The level established in Part A of the permit by the Director.
   (b) That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant, which was not reported in the permit application.
   (c) That the effluent limit established in part A of the permit will be exceeded.

D. SPECIAL CONDITIONS (continued)

6. Water Quality Standards
   (a) 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.

7. Storm Water Pollution Prevention Plan (SWPPP)

   (a) The permit requires development and implementation of a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP must be kept on-site and a copy shall be sent to the DNR upon request. The SWPPP must be finalized within 60 days and implemented within 90 days of the permit issuance. The permittee shall select, install, use, operate, and maintain the Best Management Practices (BMPs) prescribed in the SWPPP in accordance with the concepts and methods described in the following document:

   Developing Your Stormwater Pollution Prevention Plan, A Guide for Industrial Operators, (Document number EPA 833-B-09-002) published by the United States Environmental Protection Agency (USEPA) in February 2009.

   In lieu of developing a separate Best Management Practices Plan required by this permit, the SWPPP may incorporate the requirements of the Best Management Practices Plan to comply with 40 CFR 122.44 (k) & 10 CSR 20-6.200.

   (b) The SWPPP must include the following:
      (1) An assessment of all stormwater discharges associated with the facility. This must include a list of potential contaminants and an annual estimate of amounts that will be used in the described activities.
      (2) A listing of Best Management Practices (BMPs) and a narrative explaining how BMPs will be implemented to control and minimize the amount of potential contaminants that may enter storm water.
      (3) A schedule for implementing the BMPs.
      (4) A narrative explaining how RCRA and CERCLA requirements for this type of operation are being met.
      (5) Provisions for preventing the spillage or loss of fluids, oil, grease, fuel, etc. from vehicle maintenance, equipment cleaning, or warehousing activities and prevent the contamination of stormwater from these substances.
      (6) A provision for designating an individual to be responsible for environmental matters.
      (7) A provision for providing training to all personnel involved in material handling and storage, and housekeeping of maintenance areas. Upon request, proof of training shall be submitted to the department.
      (8) The SWPPP must contain a list of all benchmark testing and modifications to the SWPPP based on exceedances of those benchmarks. Only data within the previous five years is required to be maintained.
      (9) The SWPPP must include a schedule for twice per month site inspections and brief written reports. The inspections must include observation and evaluation of all stormwater pollution prevention structures, stormwater treatment structures, stormwater outfalls, and of the facility in general, to ensure that structures are properly maintained and effective and that any Best Management Practices are continually implemented and effective. The inspections must include observation and evaluation of BMP effectiveness, deficiencies, and corrective measures

D. SPECIAL CONDITIONS (continued)

7. Storm Water Pollution Prevention Plan (SWPPP) (continued)

that will be taken. The permittee must document these inspections with a brief written report or checklist. The reports must note any spills, leaks, or maintenance needs of any of the structures or practices. The reports must also document action taken to correct or repair deficiencies, including any applicable photographs. Deficiencies that consist of maintenance or minor repairs of existing BMPs must be corrected within seven (7) days. Deficiencies that require additional time or that require the installation of an additional treatment device in order to correct the deficiency should be documented on the submitted Annual Report. Inspection reports must be kept on site with the SWPPP and maintained for a period of at least five years. These must be made available to DNR personnel upon request.

(10) A provision for material or other waste materials piles to be managed to control the amount of precipitation that is allowed to infiltrate.

(11) The SWPPP must include an analysis of the Best Management Practices (BMPs). This analysis is a structured evaluation of BMPs that are reasonable and cost effective. The evaluation should include practices that are designed to be 1) non-degrading 2) less degrading, or 3) degrading water quality. The chosen BMP will be the most reasonable and cost effective while ensuring that the highest statutory and regulatory requirements are achieved and the highest quality water attainable for the facility is discharged. The analysis must also demonstrate why "no discharge" or "no exposure" is not a feasible alternative at the facility. This structured analysis of BMPs serves as the Antidegradation review, fulfilling the requirements of 10 CSR 20-7.031(2).

(c) Permittee shall adhere to the following minimum Best Management Practices:

(1) Prevent the spillage or loss of fluids, oil, grease, fuel, etc. from vehicle maintenance, equipment cleaning, or warehouse activities and thereby prevent the contamination of storm water from these substances.

(2) Provide collection facilities and arrange for proper disposal of waste products including but not limited to petroleum waste products and solvents.

(3) Store all paint, solvents, petroleum products and petroleum waste products (except fuels), and storage containers (such as drums, cans, totes, or cartons) so that these materials are not exposed to storm water or provide other prescribed BMP's 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.

(4) Provide good housekeeping practices on the site to keep solid waste from entry into waters of the state.

(5) Provide sediment and erosion control sufficient to prevent or control sediment loss off of the property.

(6) Minimize the exposure of manufacturing, processing, and material storage areas (including loading and unloading, storage, disposal, cleaning, maintenance, and fueling operations) to rain, snow, snowmelt, and runoff by either locating these industrial materials and activities inside or protecting them with storm resistant coverings.

(7) Spill Prevention and Response Procedures. The permittee must minimize the potential for leaks, spills and other releases that may be exposed to stormwater and develop plans for effective response to such spills if or when they occur.

(8) Erosion and Sediment Controls. The permittee must stabilize exposed areas and contain runoff using structural and/or non-structural control measures to minimize onsite erosion and sedimentation, and the resulting discharge of pollutants. Where necessary, use flow velocity dissipation devices at discharge locations and within outfall channels to reduce erosion and/or settle out pollutants.

(9) Dust Generation and Vehicle Tracking of Industrial Materials. The permittee must minimize generation of dust and tracking of raw, final, or waste materials.

(d) The purpose of the SWPPP, and the BMPs listed therein, is to prevent, or to sufficiently reduce, pollutants from entering waters of the state (in addition to preventing the initial contamination of stormwater by onsite pollutants). A deficiency of the combined BMPs used within an outfall's watershed means that they were not effective in sufficiently reducing pollution [10 CSR 20-2.010(56)] in an outfall's discharge to below the effluent limitations and/or benchmark limits as

D. SPECIAL CONDITIONS (continued)

7. Storm Water Pollution Prevention Plan (SWPPP) (continued)

listed in this permit. Corrective action means the facility took steps to eliminate the deficiency. Routine maintenance, such as removing sediment from a sedimentation basin, is not considered a deficiency that requires notification. Constructing a new sedimentation basin in response to observed impacts to the receiving stream is an example of a deficiency that requires notification on the submitted Annual Report. It is a violation:

(1) When a numeric effluent limitation in Table A is exceeded in the discharge,
(2) When a water quality criteria violation is discovered in the receiving stream that is directly attributed to the facility's discharge,
(3) When corrective action is not taken after identifying a deficiency of a BMP, and/or
(4) When the permittee does not review and update the SWPPP and implement necessary changes to the BMPs after a deficiency is discovered.

8. Effluent shall not elevate or depress the temperature of the receiving stream more than five degrees Fahrenheit. The stream temperature shall not exceed ninety degrees Fahrenheit (90 °F) due to the effluent.

9. An **annual operating report** must be submitted to the Northeast Regional Office by October 28 of each year (notwithstanding any reporting requirements contained in the attached "Standard Conditions"). The report shall detail any unusual occurrences such as spills, overflows, fish kills, fire-fighting activities, other upsets at the facility, and any deficiencies/corrections of BMPs as required by Special Condition 7. This report will specifically include, but is not limited to, loss or spills of any fertilizer or zinc-bearing materials, fuel, oil, and/or paint. The report shall also detail any remedial work undertaken to recover any product or clean up the site. The report must also indicate if nothing unusual has occurred. Please include your permit number with the report.

10. Substances, regulated by federal law under the Resource Conservation and Recovery Act (RCRA) and Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), that are transported, stored, or used for maintenance, cleaning or repair, shall be managed according to RCRA and CERCLA. This permit does not authorize the discharge of any hazardous substances.

11. In accordance with, and in addition to, Standard Conditions Part I, the permittee is to notify the department by telephone within 24 hours of becoming aware of any event that may endanger health or the environment. Leaving a message on a department staff member's voicemail does not satisfy this reporting requirement. During holidays, during the weekends, after normal business hours, or if the permit holder cannot reach regional office staff for any reason, the permit holder is instructed to report the situation to the department's 24-hour Environmental Emergency Response hotline at (573) 634-2436. In addition, the permittee shall submit to the department a written report with five (5) days of the time the permittee becomes aware of the circumstances. The written report shall include a description of the discharge or situation and cause of any noncompliance, the period of noncompliance, including exact dates and times or, if not corrected, the anticipated time the noncompliance is expected to continue, and steps being taken to reduce, eliminate and prevent `recurrence of the non-complying discharge. These events include but are not limited to (a) any spill, of any material, that leaves the property of the facility and (b) any spill, of any material outside of secondary containment and exposed to precipitation, greater than 25 gallons or an equivalent volume of solid material.

Federal Regulations (CERCLA) require reporting spills and releases to soil, water and air in excess of reportable quantities. The toll free number for the US Coast Guard National Response Center is (800) 424-8802.

12. Whole Effluent Toxicity (WET) tests shall be conducted as follows:

SUMMARY OF ACUTE WET TESTING FOR THIS PERMIT				
OUTFALL	AEC	FREQUENCY	SAMPLE TYPE	MONTH
001	100 %	TWICE PER YEAR	grab	****

**** Monitor only when a discharge occurs. Report as "no discharge" when a discharge does not occur during the reporting period. See table below for semi-annual sampling

Sample discharge at least once for the months of:		Report is due:
September or October	(2nd Six Months)	January 28
April or May	(1st Six Months)	July 28

D. SPECIAL CONDITIONS (continued)

12. Whole Effluent Toxicity (WET) tests (continued)

(a) Test Schedule and Follow-Up Requirements

(1) Perform a MULTIPLE-dilution acute WET test in the months and at the frequency specified above. For tests which are successfully passed, submit test results using the Department's WET test report form #MO-780-1899 along with complete copies of the test reports as received from the laboratory, including copies of chain-of-custody forms within 30 calendar days of availability to the WATER PROTECTION PROGRAM, P.O. Box 176, Jefferson City, MO 65102. If the effluent passes the test, do not repeat the test until the next test period.

(i) For discharges of stormwater, samples shall be collected within three hours from when discharge first occurs.

(ii) Samples submitted for analysis of stormwater discharges shall be collected as a grab.

(iii) For discharges of non-stormwater, samples shall be collected only when precipitation has not occurred for a period of forty-eight hours prior to sample collection. In no event shall sample collection occur simultaneously with the occurrence of precipitation excepting for stormwater samples.

(iv) A twenty-four hour composite sample shall be submitted for analysis of non-stormwater discharges.

(v) Upstream receiving water samples, where required, shall be collected upstream from any influence of the effluent where downstream flow is clearly evident.

(vi) Samples submitted for analysis of upstream receiving water may be collected as either a grab or twenty-four-hour composite as appropriate to the nature of the discharge.

(vii) Chemical and physical analysis of the upstream control and effluent sample shall occur immediately upon being received by the laboratory, prior to any manipulation of the effluent sample beyond preservation methods consistent with federal guidelines for WET testing that are required to stabilize the sample during shipping.

(viii) Any and all chemical or physical analysis of the effluent sample performed in conjunction with the WET test shall be performed at the 100% Effluent concentration in addition to analyses performed upon any other effluent concentration.

(ix) All chemical analyses included in the Missouri Department of Natural Resources WET test report form #MO-780-1899 shall be performed and results shall be recorded in the appropriate field of the report form.

(x) Where flow-weighted composite sample is required for analysis, the samples shall be composited at the laboratory where the test is to be performed.

(xi) Where in stream testing is required downstream from the discharge, sample collection shall occur immediately below the established Zone of Initial Dilution in conjunction with or immediately following a release or discharge.

(xii) Samples submitted for analysis of downstream receiving water may be collected as either a grab or twenty-four-hour composite as appropriate to the nature of the discharge.

(xiii) All instream samples, including downstream samples, shall be tested for toxicity at the 100% concentration in addition to any other assigned AEC for in-stream samples.

(2) All failing test results along with complete copies of the test reports as received from the laboratory, INCLUDING THOSE TESTS CONDUCTED UNDER CONDITION (3) BELOW, shall be reported to the WATER PROTECTION PROGRAM, P.O. Box 176, Jefferson City, MO 65102 within 14 calendar days of the availability of the results.

(3) If the effluent fails the test, a multiple dilution test shall be performed for BOTH test species within 30 calendar days and biweekly thereafter (for storm water, tests shall be performed on the next and subsequent storm water discharges as they occur, but not less than 7 days apart) until one of the following conditions are met:

(i) THREE CONSECUTIVE MULTIPLE-DILUTION TESTS PASS. No further tests need to be performed until next regularly scheduled test period.

(ii) A TOTAL OF THREE MULTIPLE-DILUTION TESTS FAIL.

(4) Failure of at least two multiple-dilution tests during any period of accelerated monitoring violates the permit narrative requirement for aquatic life protection.

(5) The permittee shall submit a summary of all test results for the test series along with complete copies of the test reports as received from the laboratory to the WATER PROTECTION PROGRAM, P.O. Box 176, Jefferson City, MO 65102 within 14 calendar days of the third failed test.

(6) Additionally, the following shall apply upon failure of the third MULTIPLE DILUTION test: A toxicity identification evaluation (TIE) or toxicity reduction evaluation (TRE) is automatically triggered. The permittee shall contact THE WATER PROTECTION PROGRAM within 14 calendar days from availability of the test results to ascertain as to whether a TIE or TRE is appropriate. The permittee shall submit a plan for conducting a

D. SPECIAL CONDITIONS (continued)

12. Whole Effluent Toxicity (WET) tests (continued)

TIE or TRE to the WATER PROTECTION PROGRAM within 60 calendar days of the date of DNR's direction to perform either a TIE or TRE. This plan must be approved by DNR before the TIE or TRE is begun. A schedule for completing the TIE or TRE shall be established in the plan approval.

(7) Upon DNR's approval, the TIE/TRE schedule may be modified if toxicity is intermittent during the TIE/TRE investigations. A revised WET test schedule may be established by DNR for this period.

(8) If a previously completed TIE has clearly identified the cause of toxicity, additional TIEs will not be required as long as effluent characteristics remain essentially unchanged and the permittee is proceeding according to a DNR approved schedule to complete a TRE and reduce toxicity. Regularly scheduled WET testing as required in the permit, without the follow-up requirements, will be required during this period.

(9) When WET test sampling is required to run over one DMR period, each DMR report shall contain a copy of the Department's WET test report form that was generated during the reporting period.

(10) Submit a concise summary in tabular format of all WET test results with the annual report.

(b) PASS/FAIL procedure and effluent limitations:

(1) To pass a multiple-dilution test:

(i) For facilities with a computed percent effluent at the edge of the zone of initial dilution, Allowable Effluent Concentration (AEC) OF 30% OR LESS, the AEC must be less than three-tenths (0.3) of the LC_{50} concentration for the most sensitive of the test organisms; **OR**,

(ii) For facilities with an AEC greater than 30%, the LC50 concentration must be greater than 100%; **AND**,

(iii) all effluent concentrations equal to or less than the AEC must be nontoxic. Mortality observed in all effluent concentrations equal to or less than the AEC shall not be significantly different (at the 95% confidence level; $p = 0.05$) than that observed in the upstream receiving-water control sample. Where upstream receiving water is not available mortality observed in the AEC test concentration shall not be significantly different (at the 95% confidence level; $p = 0.05$) than that observed in the laboratory control. The appropriate statistical tests of significance shall be consistent with the most current edition of METHODS FOR MEASURING THE ACUTE TOXICITY OF EFFLUENTS AND RECEIVING WATERS TO FRESHWATER AND MARINE ORGANISMS or other federal guidelines as appropriate or required. Failure of one multiple-dilution test may be considered an effluent limit violation.

(c) Test Conditions

(1) Test Type: Acute Static non-renewal

(2) All tests, including repeat tests for previous failures, shall include both test species listed below.

(3) Test species: Ceriodaphnia dubia and Pimephales promelas (fathead minnow). Organisms used in WET testing shall come from cultures reared for the purpose of conducting toxicity tests and cultured in a manner consistent with the most current USEPA guidelines. All test animals shall be cultured as described in the most current edition of Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms.

(4) Test period: 48 hours at the "Acceptable Effluent Concentration" (AEC) specified above.

(5) Upstream receiving stream water shall be used as dilution water. If upstream water is unavailable or if mortality in the upstream water exceeds 10%, "reconstituted" water will be used as dilution water. Procedures for generating reconstituted water will be supplied by the MDNR upon request.

(6) Multiple-dilution tests will be run with:

(i) 100%, 50%, 25%, 12.5%, and 6.25% effluent, unless the AEC is less than 25% effluent, in which case dilutions will be 4 times the AEC, two times the AEC, AEC, 1/2 AEC and 1/4 AEC;

(ii) 100% receiving-stream water (if available), collected upstream of the outfall at a point beyond any influence of the effluent; and

(iii) reconstituted water.

(7) If reconstituted-water control mortality for a test species exceeds 10%, the entire test will be rerun.

(8) If upstream control mortality exceeds 10%, the entire test will be rerun using reconstituted water as the dilutant.

D. SPECIAL CONDITIONS (continued)

13. SUMMARY OF TEST METHODOLOGY FOR ACUTE WHOLE-EFFLUENT TOXICITY TESTS

Whole-effluent-toxicity (WET) tests required in NPDES permits shall use the following test conditions when performing single or multiple dilution methods. Any future changes in methodology will be supplied to the permittee by the Missouri Department of Natural Resources (MDNR). Unless more stringent methods are specified by the DNR, the procedures shall be consistent with the most current edition of Methods for Measuring the Acute Toxicity of Effluents and Receiving Waters to Freshwater and Marine Organisms,

Test conditions for Ceriodaphnia dubia:

Test duration:	48 h
Temperature:	25 ± 1°C Temperatures shall not deviate by more than 3°C during the test.
Light Quality:	Ambient laboratory illumination
Photoperiod:	16 h light, 8 h dark
Size of test vessel:	30 mL (minimum)
Volume of test solution:	15 mL (minimum)
Age of test organisms:	<24 h old
No. of animals/test vessel:	5
No. of replicates/concentration:	4
No. of organisms/concentration:	20 (minimum)
Feeding regime:	None (feed prior to test)
Aeration:	None
Dilution water:	Upstream receiving water; if no upstream flow, synthetic water modified to reflect effluent hardness.
Endpoint:	Pass/Fail (Statistically significant Mortality when compared to upstream receiving water control or synthetic control if upstream water was not available at $p \leq 0.05$)
Test acceptability criterion:	90% or greater survival in controls

Test conditions for Pimephales promelas:

Test duration:	48 h
Temperature:	25 ± 1°C Temperatures shall not deviate by more than 3°C during the test.
Light Quality:	Ambient laboratory illumination
Photoperiod:	16 h light/ 8 h dark
Size of test vessel:	250 mL (minimum)
Volume of test solution:	200 mL (minimum)
Age of test organisms:	1-14 days (all same age)
No. of animals/test vessel:	10
No. of replicates/concentration:	4 (minimum) single dilution method 2 (minimum) multiple dilution method
No. of organisms/concentration:	40 (minimum) single dilution method 20 (minimum) multiple dilution method
Feeding regime:	None (feed prior to test)
Aeration:	None, unless DO concentration falls below 4.0 mg/L; rate should not exceed 100 bubbles/min.
Dilution water:	Upstream receiving water; if no upstream flow, synthetic water modified to reflect effluent hardness.
Endpoint:	Pass/Fail (Statistically significant Mortality when compared to upstream receiving water control or synthetic control if upstream water was not available at $p \leq 0.05$)
Test Acceptability criterion:	90% or greater survival in controls

D. SPECIAL CONDITIONS (continued)

13. This permit does not authorize any additional industrial processes and/or storage and handling activities outside the watershed of Outfall #001 as specified in the SWPPP. If additional activities are conducted outside of this watershed, the permittee must submit an application to modify the Missouri State Operating Permit to include that outfall.

PERMIT TRANSFER

This permit may be transferred to a new owner by submitting an "Application for Transfer of Operating Permit" signed by the seller and buyer of the facility, along with the appropriate modification fee.

PERMIT RENEWAL REQUIREMENTS

Unless this permit is terminated, the permittee shall submit an application for the renewal of this permit no later than six (6) months prior to the permit's expiration date. Failure to apply for renewal may result in termination of this permit and enforcement action to compel compliance with this condition and the Missouri Clean Water Law.

TERMINATION

In order to terminate this permit, the permittee shall notify the department by submitting Form J, included with the State Operating Permit. The permittee shall complete Form J and mail it to the department at the address noted in the cover letter of this permit. Proper closure of any storage structure is required prior to permit termination. A closure plan shall be submitted to the department and approved prior to initiating closure activities.

DUTY OF COMPLIANCE

The permittee shall comply with all conditions of this permit. Any noncompliance with this permit constitutes a violation of Chapter 644, Missouri Clean Water Law, and 10 CSR 20-6. Noncompliance may result in enforcement action, termination of this authorization, or denial of the permittee's request for renewal. This permit authorizes only the activities described in this permit.

Missouri Department of Natural Resources
FACT SHEET
FOR A NEW MISSOURI STATE OPERATING PERMIT
FOR
MO-0136514
TNT General Contracting, Inc.

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

As per [40 CFR Part 124.8(a)] and [10 CSR 20-6.020(1)2.] a Factsheet shall be prepared to give pertinent information regarding the applicable regulations, rationale for the development of effluent limitations and conditions, and the public participation process for the Missouri State Operating Permit (operating permit) listed below.

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

This Factsheet is for an Industrial Facility proposing to discharge stormwater ☒; Variance ☐;
Master General Permit ☐; General Permit Covered Facility ☐; and/or permit with widespread public interest ☐.

Part I – Facility Information

Facility Type: IND (a trucking company and an intermediate handler of zinc-bearing materials (ZBM))
Facility SIC Code(s): 4213 (Trucking, Except Local) and 2819 (Industrial Inorganic Chemicals, Not Elsewhere Classified)

Facility Description:

TNT General Contracting, located just east of Kahoka, Missouri, is a general trucking contractor that also processes zinc bearing materials (ZBMs) onsite into a micronutrient fertilizer ingredient. In addition, the several large piles of various materials are stored and handled onsite. These materials include diatomaceous earth, lime, carbon, fertilizer, and manure. The facility also stores bulk sugar onsite. There is a vehicle maintenance shed. Finally, the facility has an area on the west part of the site where sawdust was buried and covered with lime. Best management practices are used to minimize the contamination of stormwater from onsite materials and to remove pollutants that have come into contact with stormwater. Stormwater within their operations area is then routed to a stormwater retention basin. The water is then discharged to the environment.

See the comment section below for a more detailed site history and facility description.

There is only one outfall from the site, located at the point where the retention basin flows into the receiving stream. According to the permittee's consultant, the stormwater from the northwest portion of the site is to be routed towards the stormwater basin via berms and other BMPs. Also according to the permittee's consultant, the southeast portion of the site is not being used for any industrial processes, and there are no materials stored there. Therefore the permit does not include this area for monitoring.

Outfall #001 – Stormwater Runoff	(The actual watershed for the outfall is reported as about 19 acres.)
Legal Description:	NE ¼, NW ¼, Sec. 28, T65N, R7W, Clark County
UTM Coordinates:	X=612513, Y=4474211
Receiving Stream:	Unnamed tributary to Weaver Branch (U)
First Classified Stream and ID:	Fox River (P) (00038) 303(d)
USGS Basin & Sub-watershed No.:	(07110001-040007)
EDU:	Central Plains/Cuivre/Salt

According to the permittee's consultant, the design flow is approximately 0.35 million gallons per day (MGD) (or approximately 0.54 cubic feet per second (cfs)), based on the actual discharge from a 10-year, 24-hour storm. The water flowing through the site from a 10-year, 24-hour storm event (of approximately 5 inches) would be approximately 2.58 million gallons based on the precipitation falling over the watershed area. Actual flow is dependent upon precipitation. The discharge is approximately four (4) miles from the nearest downstream classified water body

Have any changes occurred at this facility or in the receiving water body that effects effluent limit derivation?
☒ - N/A; This is a new facility.

Application Date: 09/14/2010
Expiration Date: N/A; This is a new facility.
Last Inspection: 03/24/2010 In Compliance ☐; Non-Compliance ☒

OUTFALL(S) TABLE:

OUTFALL	DESIGN FLOW (CFS)	TREATMENT LEVEL	EFFLUENT TYPE	DISTANCE TO CLASSIFIED SEGMENT (MI)
001	Stormwater	BMPs	Stormwater	> 4

Modification Rational:
This is a new permit.

Receiving Water Body's Water Quality & Facility Performance History:
This is a newly permitted facility and has no documented performance history prior to a March 2010 department investigation, inspection, and other follow-up sampling such as that required by the application for a Missouri State Operating Permit (MSOP). The inspection report documented water quality impacts to the receiving stream due to discharges from this facility.

Notices of Violation (NOVs) were issued on August 20, 2010, based on the inspection, including the following: NER2010081409503540 (hazardous waste) and NER2010081609523552 (water pollution) were issued to the proposed permittee TNT General Contracting, Inc., (TNT) and NER2010081410143684 (hazardous waste) and NER2010081609263396 (water pollution) were issued to the ZBMs supplier, Webb Minerals, LLC.

The first classified stream is about four miles from this facility but is on the 303(d) list for bacteria. No other stream surveys were discovered during permit review.

Comments:

Facility activities and compliance history description

TNT blends and mixes Zinc Bearing Materials (ZBM) into Zinc Fertilizer Ingredients (ZFI) for Webb Minerals, LLC (Webb). Webb brokers various sources of ZBM from sources in several states, including materials from metal plating operations that often meet the definition of a hazardous waste. Regulations in 40 CFR 261.4(a) (20 & 21) provide a possible exemption from the hazardous waste regulations when these materials are used as ZFIs (ZFIs are defined as Secondary Hazardous Materials (SHMs)). Webb provides specific recipes to TNT, based upon the testing Webb performs on the various sources. TNT stores and mixes the various ZBMs into ZFIs and provides some limited storage of the final product. Webb sells the ZFIs to commercial fertilizer manufacturers to be added as a zinc micronutrient in complete fertilizer product mixtures.

Micronutrients are nutrients essential for normal growth of plants that are required relatively small amounts. Micronutrients may include boron, chlorine, cobalt, copper, iron, manganese, molybdenum, sodium, and zinc. (Source: Fertilizer Dictionary, Farm Chemicals Handbook). Heavy metals such as zinc and copper can be used as a nutrient in some circumstances and viewed as an undesirable component in other instances. A number of industrial wastes and by-product materials are used in the manufacture of inorganic fertilizers. It should be noted that, according to an EPA document, non-waste feedstocks that are also used to make zinc fertilizers, such as refined ores from lead mining, can often have concentrations of non-nutritive metals comparable to those in waste feedstock materials. Levels of metal contaminants in zinc fertilizer products vary substantially and depend largely on how the raw materials are processed rather than on which type of feedstock is used.

Agricultural lands surround the site on the north and west. A farmstead is located south of the facility. The Twin Lakes Golf Course is located directly east of the facility. Drainage from the site flows east and south through the golf course in an unnamed tributary to Weaver Branch. During wet weather, stormwater from the western and northern sections of the site flows through a normally dry ditch located along the northern and eastern boundaries of the site. A sedimentation pond is located on the northeast corner of the site and collects stormwater from the operational portions of the site. Irrigation has previously been performed from this pond.

On March 22, 2010, information was received in the Missouri Department of Natural Resources' Northeast Regional Office (NERO) regarding hazardous secondary materials, zinc bearing wastes from plating operations, being managed through TNT without proper notification to the appropriate regulatory agency. The investigation is referenced as ACE #5411.

On March 24, 2010, staff from the NERO conducted an investigation of the TNT facility. A Compliance Evaluation Inspection of the hazardous waste practices of the facility was performed in conjunction with the investigation to evaluate compliance with the Hazardous Waste Management Law and regulations.

On June 16, 2010, staff from the Department's Environmental Services Program conducted sampling at the site. Staff from the Hazardous Waste Program and the NERO participated in the sampling event. On August 13, 2010, analytical results from the sampling event were provided to the NERO in an Amended Site Investigation Sampling Report. The analytical results document water quality violations to an unnamed tributary to Weaver Branch and the improper storage and management of secondary hazardous materials that are also hazardous wastes.

As a result of the inspection and investigation, violations of Missouri's environmental laws and associated regulations were identified including those associated with the Missouri Hazardous Waste Management Law and Missouri Clean Water Law. NOVs were issued on August 20, 2010, for Hazardous Waste and Water Pollution violations to both TNT and Webb. A Report on Investigation and Inspection also accompanied the NOVs. Specific pollutants of concern listed in the NOV as having exceeded the water quality standards were Ammonia (11.6 mg/L at SW-02), pH (11.87 SU at SW-02), Temperature (35.1 °C at SW-02 and 37.7°C at SW-03), Copper (33.1 µg/L in the blink duplicate at SW-02), and Hexavalent Chromium (45.6 µg/L at SW-03).

Given the nature of operations and apparent relationship between TNT and Webb, the issues were referred to the United States Environmental Protection Agency (EPA) for resolution as they involve water quality issues and hazardous waste violations stemming from hazardous wastes generated in multiple states and involving interstate commerce.

On September 2, 2010, a Unilateral Administrative Order (Order) (Docket numbers RCRA-07-2010-0034 and CWA-07-2010-0155) was issued to TNT General Contracting, Inc., Webb Minerals, LLC., and the Gary and Carol Trump Trust U/T/A. The Order requires the respondents to (1) develop a Stormwater Pollution Prevention Plan (SWPPP) describing best management practices (BMPs) that will be used at the site, (2) cease further receipt of hazardous waste until the materials can be handled in compliance with all state and federal requirements, (3) identify all solid and hazardous wastes currently being treated, stored, or disposed at the facility, (4) restrict access to solid and hazardous wastes that have been disposed at the facility, (5) obtain a National Pollutant Discharge Elimination System (NPDES) permit pursuant to the Clean Water Act (CWA) from the State of Missouri, (6) develop a Site Characterization Plan to determine where hazardous wastes have been disposed at the facility including an investigation to determine the extent of off-site migration of waste, and (7) clean up the property and any contaminated surrounding areas as necessary. The order stated that the facility did not qualify for the Zinc Bearing Fertilizer exemption.

On September 14, 2010, the department's Northeast Regional Office received an application Form E from True North Consultants, the contracted consultant, in order to comply with the condition to obtain an NPDES permit. On November 5, 2010, the NERO received an updated application, including completed Forms A and Form 2F (Form 2F is an EPA form). The attached draft Missouri State Operating Permit (MSOP) will serve as the federal NPDES permit upon issuance.

On November 24, 2010, True North submitted, via e-mail, analytical results of pond sampling and other stormwater. The sampling included testing that was performed on October 7 and 26, 2010, at the pond. Samples "WS-1" (located at the northeast corner of the pond near the inlet of the pond) and "WS-2" (located at the southeast corner of the pond near the discharge) were taken on October 7. Sample "WS-3" (located near the same point as SW-2) was taken on October 26.

On December 9, 2010, True North submitted additional sampling via e-mail, including sample "Grab-1." This sample is reported as being a stormwater grab sample collected from a location west of the pond and representing stormwater that has flowed across the process area immediately following entry into the vegetated area to the west of the pond.

Receiving stream description

In reviewing the submitted information, it is noted that the entire site flows to an unnamed tributary to Weaver Branch (an unclassified stream). The north and west portions of the site flow first to a retention pond before being discharged. The application documents submitted by TNT report that the southeast portion of the site does not contain any contaminants or processes of concern and flows directly to the unnamed tributary without flowing through the retention pond or other BMPs. The submitted SWPPP lists several BMPs that will be used to control pollutants. The site is approximately four miles from the first classified water body, which is the Fox River, a P-class stream with water body ID 00038. The Fox River is listed in the Missouri Clean Water Commission regulation 10 CSR 20-7.031 (Water Quality Standards) with the following designated uses: Livestock and Wildlife Watering, Protection of Warm Water Aquatic Life and Human Health-Fish Consumption, Whole Body Contact Recreation (category B), and Secondary Contact Recreation. The MSOP for this facility was drafted with these designated uses in mind in addition to the general water quality criteria (or Protection of Aesthetics and Acute Toxicity) as required by 10 CSR 20-7.031(3).

The department does not document any Use Attainability Analyses (UAAs) in Clark County for the Fox River. See the following website: http://www.dnr.mo.gov/env/wpp/wqstandards/uaa/uaa_clark.htm.

The Fox River was also listed on the following 303(d) lists (http://www.dnr.mo.gov/env/wpp/waterquality/303d.htm):

1. 2010 303(d) list (*proposed*) - 303(d) list as approved by the Missouri Clean Water Commission Sept. 8, 2010 (http://www.dnr.mo.gov/env/wpp/waterquality/303d/090810-cwc-approved-303d.pdf). The Fox R. (00038) was listed for Bacteria from Rural Non-Point Sources (2010 Assessment indicates impairment of WBC).
2. 2008 303(d) list (http://www.dnr.mo.gov/env/wpp/waterquality/303d/2008/2008-303d-final.pdf). The Fox R. (00038) was listed for Bacteria from Rural Non-Point Sources.
3. 2002 303(d) list (http://www.dnr.mo.gov/env/wpp/waterquality/2002_303d_list.pdf). The Fox R. (00037) was listed for Manganese from natural sources.
4. 1998 303(d) list under category 3, which are recommended Section 303(d) waters required to have use attainability analyses or TMDL development. The Fox R. (00037) was listed for Manganese from natural sources.

The Fox River turns from a P stream (00038) to a P1 stream (00037) when it crosses Missouri State Highway 27 (about nine miles downstream of the facility, to the southeast of Kahoka, Missouri. The P1 stream then flows for an additional 12 miles before it enters the Mississippi River.

Discussion of Benchmarking as used in this permit

The inclusion of benchmarking was taken from the MO-R80C general permit template for firms engaged in motor freight activities. The application and previous testing at this facility did not include sufficient data to perform any reasonable potential determination. The benchmark limitations were set to the water quality standard, because this facility discharges only stormwater, which may be contaminated with the listed pollutants.

Miscellaneous comments and additional information

Due to the serious nature of the violations documented at this facility, the sources of the zinc bearing materials stored and processed at the facility, and the potential for unknown contaminants being mobilized and discharged from this site, this permit requires a Whole Effluent Toxicity (WET) test twice per year.

The facility's active area covers about 19 acres. The facility's SWPPP is required to document the feasibility of no exposure and/or no discharge. The submitted SWPPP stated that the permittee attempts to keep the ZBMs under cover and prevent exposure to stormwater.

Stormwater runoff and reasonable potential

When determining if an outfall has the reasonable potential to violate water quality in a receiving stream from its stormwater discharges, the following regulations were considered:

40 CFR 122.44(d)(1)(i): *Limitations must control all pollutants or pollutant parameters (either conv, non-conv, or toxic), which the Director determines are or may be discharged at a level which will cause, have the reasonable potential to cause, or contribute to an excursion above any State Water Quality Standard, including State narrative criteria for water quality.*

40 CFR 122.44(d)(1)(ii): *When determining whether a discharge causes, has the reasonable potential to cause, or contributes to an in-stream excursion above a narrative or numeric criteria within a State water quality standard, the permitting authority shall use procedures which account for existing controls on point and non-point sources of pollution, the variability of the pollutant or pollutant parameter in the effluent, the sensitivity of the species to toxicity testing (when WET testing), and where appropriate, the appropriate dilution of the effluent in the receiving water.*

A Reasonable Potential Analysis (RPA) is a tool used to determine if any given pollutant from any given facility's effluent has the reasonable potential to "cause or contribute to excursions of water quality criteria." This is used to determine if the facility's discharges have potential to cause or contribute to excursions of Missouri's Water Quality Standards for any give pollutant, while including effluent variability, dilution (if applicable), etc. True (statistical) RPAs are used with numeric criteria with continuous flow, which is not applicable for stormwater discharges. Where both effluent testing data and other important factors exist, we need to exercise discretion in the determination of the need for a limit. The permitting authority should employ the principle of independent application of the data and information that characterizes the effluent (via a Reasonable Potential Determination (RPD)). In other words, effluent data alone, showing toxicity at the receiving water concentration (RWC), may be adequate to demonstrate the need for a limit for toxicity or for individual toxicant. In this case, the establishing of non-numeric, technology-based effluent limits and other BMPs via a SWPPP are the primary treatment technology used for controlling stormwater discharges. The permitting authority is then required to consider whether TBEL are sufficient to maintain WQS. If the facility has previously violated water quality, then they may need an actual effluent limit for a pollutant, however it is difficult to determine which flow to use to calculate the water quality impact due to a discharge from a particular storm event (e.g. the point sources are non-continuous flow). In the case of this permit, the facility is a new facility. The inclusion of benchmark limits in this permit will require the facility to review their SWPPP and associated BMPs to see if a change is necessary when an exceedance occurs. The benchmarks were set, when possible, at the acute

water quality standard. Please see the below sections. Numeric effluent limits may be added to this permit in the future if the department determines that such a change will better protect waters of the state.

General permits considered when drafting this permit:

1. MO-R240, issued February 20, 2009. This permit covers stormwater discharges from bulk fertilizer and bulk pesticide facilities. This was considered due to the presence of fertilizer micronutrients at this facility. Specifically the limits for Settleable Solids, Ammonia as N, and pH were contained in this permit. These are also pollutants with a water quality standards criterion. This permit specifically authorizes the discharge of "containment water" to waters of the state from an agrichemical facility. This general permit includes numeric and non-numeric effluent limitations and requirements.

2. MO-R80C, issued October 5, 2007, and revised July 1, 2010. This permit is for firms engaged in motor freight, watercraft transportation, warehousing activities and U.S. Postal Service maintenance facilities. The permit specifically requires the development and implementation of a SWPPP and includes benchmarks for Oil & Grease (10 mg/L) and Total Suspended Solids (50 mg/L). The permit states that the benchmarks are "considered necessary to protect existing water quality and shall not be exceeded during discharges resulting from a precipitation event exceeding 0.1 inches during a 24 hour period." The permit also states that "the BMPs at the facility should be designed to meet these Benchmarks during rainfall events up to the 1-in-10 year, 24-hour rain event."

3. MO-R23A, issued March 12, 2010. This is a more recent general permit template that was used as a basis for more recent permitting language. The permit includes requirements for a SWPPP, more in-depth benchmarking, and a requirement for a structured evaluation of BMPs based on the antidegradation requirements. The fact sheet stated, "Because the discharge is stormwater, and therefore short duration, acute water quality standards applied where available."

4. The EPA Multi-sector General Permit (2008 version), located at http://www.epa.gov/npdes/pubs/msgp2008_finalpermit.pdf. The official title of this permit is the **Multi-Sector General Permit For Stormwater Discharges Associated With Industrial Activity (MSGP).** Please see the following websites for further information:
   http://cfpub.epa.gov/npdes/stormwater/msgp.cfm
   http://cfpub.epa.gov/npdes/stormwater/indust.cfm
   http://www.epa.gov/npdes/pubs/msgp2008_finalpermit.pdf
   http://www.epa.gov/npdes/pubs/msgp2008_finalfs.pdf
   http://www.epa.gov/npdes/pubs/industrial_swppp_guide.pdf

   The EPA general permit is applicable to the following sectors, which were similar or possibly overlapped with the TNT General Contracting facility:

   SECTOR C: CHEMICALS AND ALLIED PRODUCTS

C1	2873-2879	Agricultural Chemicals	(possibly 2879)
C2	2812-2819	Industrial Inorganic Chemicals	(possibly 2819)
C5	2891-2899	Miscellaneous Chemical Products	(possibly 2899)

   SECTOR K: HAZARDOUS WASTE TREATMENT, STORAGE, OR DISPOSAL FACILITIES

K1	HZ	Hazardous Waste Treatment, Storage, or Disposal Facilities, including those that are operating under interim status or a permit under subtitle C of RCRA	

   SECTOR P: LAND TRANSPORTATION AND WAREHOUSING

P1	4212-4231	Motor Freight Transportation and Warehousing	(specifically 4213)

   In general, it was determined that the above sectors did not sufficiently overlap with the TNT facility to justify the adding of the benchmarks suggested by the EPA 2008 MSGP (other than the 4213). The department's hazardous waste section is working with the facility to ensure that all hazardous materials are removed from the site, therefore this permit was drafted assuming there are no hazardous materials onsite. Further, the sector C descriptions did not sufficiently match the facility's activities. The requirements in the EPA permit were still considered when adding the Special Conditions and specific non-numeric, technology-based effluent limitations to this permit.

   The EPA general permit includes the following provisions that were considered when drafting this permit:

   Section 1.2

   > Where corrective action is triggered by an event that does not itself constitute permit noncompliance, such as an exceedance of an applicable benchmark, there is no permit violation provided you take the required corrective action within the relevant deadlines.

   Section 2.

   > In the technology-based limits included in Part 2.1 and in Part 8, the term "minimize" means reduce and/or eliminate to the extent achievable using control measures (including best management practices) that are technologically available and economically practicable and achievable in light of best industry practice.

   Section 2.1 Control Measures.

You must select, design, install, and implement control measures (including best management practices) to address the selection and design considerations in Part 2.1.1, meet the non-numeric effluent limits in Part 2.1.2, and meet limits contained in applicable effluent limitations guidelines in Part 2.1.3.

Section 2.1.2 Non-Numeric Technology-Based Effluent Limits (BPT/BAT/BCT)

The permit requires several limitations and conditions, such as the following: Minimize Exposure, Good Housekeeping, Maintenance, Spill Prevention and Response Procedures, Erosion and Sediment Controls, Management of Runoff, Salt Storage Piles or Piles Containing Salt, Sector Specific Non-Numeric Effluent Limits, Employee Training, Non-Stormwater Discharges, Waste, Garbage and Floatable Debris, Dust Generation and Vehicle Tracking of Industrial Materials.

Section 2.2 Water Quality-Based Effluent Limitations.

Section 2.2.1 Water Quality Standards

Your discharge must be controlled as necessary to meet applicable water quality standards.

EPA expects that compliance with the other conditions in this permit will control discharges as necessary to meet applicable water quality standards. If at any time you become aware, or EPA determines, that your discharge causes or contributes to an exceedance of applicable water quality standards, you must take corrective action as required in Part 3.1, document the corrective actions as required in Parts 3.4 and 5.4, and report the corrective actions to EPA as required in Part 7.2.

Section 6.2.1 (Benchmark Monitoring)

This permit stipulates pollutant benchmark concentrations that may be applicable to your discharge. The benchmark concentrations are not effluent limitations; a benchmark exceedance, therefore, is not a permit violation. Benchmark monitoring data are primarily for your use to determine the overall effectiveness of your control measures and to assist you in knowing when additional corrective action(s) may be necessary to comply with the effluent limitations in Part 2.

Section 8 (Sector-Specific Requirements for Industrial Activity)

Part 8 – Sector-Specific Requirements for Industrial Activity

Subpart P – Sector P – Land Transportation and Warehousing.

8.P.3 Additional Technology-Based Effluent Limits.

8.P.3.1 *Good Housekeeping Measures.* (See also Part 2.1.2.2) In addition to the Good Housekeeping requirements in Part 2.1.2.2, you must do the following. Recommended control measures are discussed as indicated:

8.P.3.1.1 *Vehicle and Equipment Storage Areas.* Minimize the potential for stormwater exposure to leaky or leak-prone vehicles/equipment awaiting maintenance. Consider the following (or other equivalent measures): use of drip pans under vehicles/equipment, indoor storage of vehicles and equipment, installation of berms or dikes, use of absorbents, roofing or covering storage areas, and cleaning pavement surfaces to remove oil and grease.

8.P.3.1.2 *Fueling Areas.* Minimize contamination of stormwater runoff from fueling areas. Consider the following (or other equivalent measures): Covering the fueling area; using spill/overflow protection and cleanup equipment; minimizing stormwater run-on/runoff to the fueling area; using dry cleanup methods; and treating and/or recycling collected stormwater runoff.

8.P.3.1.3 *Material Storage Areas.* Maintain all material storage vessels (e.g., for used oil/oil filters, spent solvents, paint wastes, hydraulic fluids) to prevent contamination of stormwater and plainly label them (e.g., "Used Oil," "Spent Solvents," etc.). Consider the following (or other equivalent measures): storing the materials indoors; installing berms/dikes around the areas; minimizing runoff of stormwater to the areas; using dry cleanup methods; and treating and/or recycling collected stormwater runoff.

8.P.3.1.4 *Vehicle and Equipment Cleaning Areas.* Minimize contamination of stormwater runoff from all areas used for vehicle/equipment cleaning. Consider the following (or other equivalent measures): performing all cleaning operations indoors; covering the cleaning operation, ensuring that all washwater drains to a proper collection system (i.e., not the stormwater drainage system); treating and/or recycling collected washwater, or other equivalent measures.

8.P.3.1.5 *Vehicle and Equipment Maintenance Areas.* Minimize contamination of stormwater runoff from all areas used for vehicle/equipment maintenance. Consider the following (or other equivalent measures): performing maintenance activities indoors; using drip pans; keeping an organized inventory of materials used in the shop; draining all parts of fluid prior to disposal; prohibiting wet clean up practices if these practices would result in the discharge of pollutants to stormwater drainage systems; using dry cleanup methods; treating and/or recycling collected stormwater runoff, minimizing run on/runoff of stormwater to maintenance areas.

8.P.3.1.6 *Locomotive Sanding (Loading Sand for Traction) Areas.* Consider the following (or other equivalent measures): covering sanding areas; minimizing stormwater run on/runoff; or appropriate sediment removal practices to minimize the offsite transport of sanding material by stormwater.

8.P.3.2 *Employee Training.* (See also Part 2.1.2.9) Train personnel at least once a year and address the following activities, as applicable: used oil and spent solvent management; fueling procedures; general good housekeeping practices; proper painting procedures; and used battery management.

The fact sheet of the Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity (MSGP) states the following:

II.B. Structure of This Permit / Terminology

II.B.2. Regarding Conformance of this Permit to Recent Court Decisions

Effluent Limitations in the Permit

The ***technology-based effluent limitations*** set forth in Part 2.1.2 require the permittee to minimize exposure of raw, final, or waste materials to rain, snow, snowmelt, and runoff. In doing so, the permittee is required, to the extent technologically available and economically practicable and achievable, to either locate industrial materials and activities inside or to protect them with storm resistant coverings. (See Part 2.1.2.1). In addition, permittees are required to: (1) use good housekeeping practices to keep exposed areas clean (See Part 2.1.2.2), (2) regularly inspect, test, maintain and repair all industrial equipment and systems to avoid situations that may result in leaks, spills, and other releases of pollutants in stormwater discharges (See Part 2.1.2.3), (3) minimize the potential for leaks, spills and other releases that may be exposed to stormwater and develop plans for effective response to such spills if or when they occur (See Part 2.1.2.4), (4) stabilize exposed area and contain runoff using structural and/or non-structural control measures to minimize onsite erosion and sedimentation, and the resulting discharge of pollutants (See Part 2.1.2.5), (5) divert, infiltrate, reuse, contain or otherwise reduce stormwater runoff, to minimize pollutants in your discharges (See Part 2.1.2.6), (6) enclose or cover storage piles of salt or piles containing salt used for deicing or other commercial or industrial purposes, including maintenance of paved surfaces (See Part 2.1.2.7), (7) achieve any additional non-numeric limits stipulated in the relevant sector-specific section(s) of Part 8 of this permit (See Part 2.1.2.8), (8) train all employees who work in areas where industrial materials or activities are exposed to stormwater, or who are responsible for implementing activities necessary to meet the conditions of this permit (e.g., inspectors, maintenance personnel), including all members of your Pollution Prevention Team (See Part 2.1.2.9), (9) eliminate non-stormwater discharges not authorized by an NPDES permit (See Part 2.1.2.10), (10) ensure that waste, garbage and floatable debris are not discharged to receiving waters by keeping exposed areas free of such materials or by intercepting them before they are discharged (See Part 2.1.2.11), (11) minimize generation of dust and off-site tracking of raw, final or waste materials (see Part 2.1.2.12), and (12) meet any applicable numeric effluent limitations based on EPA's effluent limitation guidelines (See Part 2.1.3). And, to meet the non-numeric effluent limitations in Part 2.1.2 and meet the effluent limitations guidelines-based limits in 2.1.3, the permit requires dischargers to select control measures (including best management practices) to address the selection and design considerations in Part 2.1.1.

In addition to the technology-based effluent limitations, Parts 2.2.1 – 2.2.3 and Parts 1.1.4.7 and 1.1.4.8 of the eligibility criteria contain the ***water quality-based effluent limitations*** in the permit. The permittee must control its discharge as necessary to meet applicable water quality standards. EPA expects that compliance with the technology-based effluent limitations and other terms and conditions in this permit will meet this effluent limitation. However, if at any time the permittee, or EPA, determines that the discharge causes or contributes to an exceedance of applicable water quality standards, the permittee must take corrective actions as required in Part 3.1, and conduct follow-up monitoring as required in Part 6.3; as well as report the exceedances(s) to EPA as required in Parts 6.3.1 and 7.3. (See Part 2.2.1). Furthermore, EPA may impose additional water quality-based limitations on a site-specific basis, or require the discharger to obtain coverage under an individual permit, if information in an NOI, required reports, or from other sources indicates that, after meeting the water quality-based limitations in this section, the discharges are not controlled as necessary to meet applicable water quality standards. (See Part 2.2.1). Part 2.2.2 describes the permit requirements that apply to discharges to water quality impaired waters. This part is broken into requirements for: (1) existing discharges to an impaired water with an EPA approved or established TMDL (See Part 2.2.2.1), (2) existing discharges to an impaired water without an EPA approved or established TMDL (See Part 2.2.2.2), and (3) new discharges to an impaired water (See Part 2.2.2.3). And, Part 2.2.3 contains antidegradation requirements.

"Term and Condition" to Provide Information in a SWPPP

Distinct from the effluent limitation provisions in the permit, Part 5 of the permit requires the discharger to prepare a Stormwater Pollution Prevention Plan (SWPPP) for its facility before submitting its Notice of Intent for permit coverage. The SWPPP, together with the additional documentation requirements (see Part 5.4), is intended to document the selection, design, installation, and implementation (including inspection, maintenance, monitoring, and corrective action) of control measures being used to comply with the effluent limits set forth in Part 2.

The requirement to prepare a SWPPP is not an effluent limitation, instead it documents what practices the discharger is implementing to meet the effluent limitations in the permit. The SWPPP is not an effluent limitation because it does not restrict quantities, rates, and concentrations of constituents which are discharged. CWA section 502(11). Instead, the requirement to develop a SWPPP is a permit "term or condition" authorized under sections 402(a)(2) and 308 of the Act. Section 402(a)(2) states, "[t]he Administrator shall prescribe conditions for [NPDES] permits to assure compliance with the requirements of paragraph (1) of this subsection, including conditions on data and information collection, reporting, and such other requirements as he deems appropriate." The SWPPP requirements set forth in the MSGP are terms or conditions under the CWA because the discharger is documenting information on how it intends to comply with the effluent limitations (and inspection and evaluation requirements) contained elsewhere in the permit. Thus, the requirement to develop a SWPPP and keep it updated is no different than other information collection conditions, as authorized by section 402(a)(2), in other permits.

Based in part on the above information contained within the EPA 2008 Multi-sector permit and its associated fact sheet, it is determined that this permit will contain conditions/requirements but do not necessarily need numeric effluent limitations for stormwater. The permit will require the permittee to follow certain conditions, which must be documented in the SWPPP. In addition, the permit will contain numeric benchmarks to ensure the permittee is updating the SWPPP and BMPs as necessary.

Please see the below sections for further information.

Explanation of the notes and footnotes for Table A, Effluent Limitations and Monitoring Requirements

Asterisks:

*	This is a common notation for requiring sampling and analysis but with no effluent limitation required. In this permit, monitoring may be required without an effluent limit but requiring a benchmark limit as explained in a later section.
**	This is a common notation for quarterly sampling, requiring the permittee to sample once per quarter when there is a discharge.
***	This is a common notation for twice per year sampling, requiring the permittee to sample once every six months when there is a discharge. The months required for sampling were selected to ensure the WET test was conducted at regular intervals and at times when the facility was likely to have materials onsite.

Notes:

Note 1	This is a common notation, taken from department templates. The notation was also suggested by 10 CSR 20-6.200(2)(C)1.F. and taken from similar general permits such as the MO-R23A requirement #2.
Note 2	This is a reminder only. The permittee is reminded that there is a benchmark limit for these parameters, even though there is no effluent limitation.
Note 3	This notation is to allow the permittee to obtain precipitation data that is representative of the entire site. The note also clarifies that rainfall is to be obtained daily, not just during sampling events. This is deemed necessary, since sampling is dependent upon precipitation. This was also suggested by 10 CSR 20-6.200(2)(C)1.E.(VI).

Explanation of Section C regarding benchmark limitations contained within this permit

Requirement #1	The department may require additional sampling, if deemed necessary, due to illegal discharges and other factors. This condition is being provided as a reminder. This condition was also taken from other general permits such as the MO-R23A, which includes requirements and conditions for benchmarking.
Requirement #2	This provides an explanation of how benchmarking works and when a violation would occur. This condition was taken from general permits such as the MO-R23A, which includes requirements and conditions for benchmarking.
Requirement #3	The minimum design storm for which the BMPs should be designed was set at the 10-year, 24-hour storm event. This was due to the fact that the Code of Federal Regulations defines and referenced this storm event, for example, at 40 CFR 436.22(b). In addition, the MO-R23A general permit states that BMPs "should be designed to meet these benchmarks during rainfall events up to the 1-in-10 year, 24 hour rain event." The Missouri Clean Water Commission Regulations do not specify a statistical storm event to use, however the Federal Regulations reference one. It is therefore reasonable to require that BMPs be designed to this statistical storm event. This condition also lists the benchmark limitations. The benchmark limits were set primarily at the acute water quality standard and at concentrations in similar general permits. This condition was modeled after the same condition in similar general permits, such as the MO-R23A.
Requirement #4	The condition explains that an exceedance requires reporting with the next DMR but includes a reference to Special Condition #11 for events that may endanger health or the environment (these are to be reported within 24 hours as required by Standard Condition Part I. This condition also requires that the permittee is to obtain an additional sample (during the next applicable rainfall that occurs after necessary changes have been made to BMPs) for the pollutant that was exceeded and from the outfall where the exceedance occurred. If the next applicable rainfall does not occur until the next quarter, this condition may be met by regular sampling. Please also note that Special Condition 7(b)(10) requires that "maintenance or minor repairs of existing BMPs must be corrected within seven (7) days." This is deemed necessary to ensure that the permittee is reviewing the SWPPP and updating BMPs as necessary to meet permit effluent limits and benchmarks and to mitigate continuing exceedances. This condition was taken from a recent department template for industrial stormwater.

Explanation of the Special Conditions contained within this permit

Condition #1	This is a requirement in all Missouri State Operating Permits.
Condition #2	The permittee did not request to discharge process or domestic wastewater. In addition, similar facilities are prohibited from discharging non-stormwater discharges unless specifically authorized in the permit. This condition

was suggested by applicable general permits, such as the MO-240 (applicability 10) and the MO-R80C (applicability 3).

Condition #3 This condition is common to most Missouri State Operating Permits. In addition, an explanation was added that the permittee must take reasonable action to ensure an outfall has not discharged during the reporting period when reporting "no discharge" during that period. This is intended to mean that the permittee is to observe the outfall at least twice per month (as required by Special Condition 7(b)(9)) and during large rainfall events that are likely to produce a discharge. Once a discharge is sampled from an outfall, the permittee is still expected to observe each outfall at least twice per month to determine if any general water quality criteria are being violated and if the BMPs for that outfall are effective or need to be increased and/or upgraded. This requirement was added to clarify the applicability of reporting of "no discharge."

Condition #4 This is a requirement in all Missouri State Operating Permits.

Condition #5 This is a requirement in all Missouri State Operating Permits.

Condition #6 This is a requirement in all Missouri State Operating Permits. This is also taken from 10 CSR 20-7.031(3).

Condition #7 This Special Condition is an amalgamation of several requirements.

Condition 7(a) The permittee is being required to develop a SWPPP in order to document the development and implementation of best management practices. The condition also specifies an EPA guidance document to use when selecting and designing BMPs. This part is common to stormwater operating permits, such as requirement 1 of the MO-R80C general permit.

Condition 7(b) This section specifies what must be included in the facility's SWPPP.

Condition 7(b)(1) This condition requires the permittee to specify the discharges from this facility. This is deemed necessary so that the department can monitor the facility's activities and potential discharges. This is a common requirement for a SWPPP and is listed in many general permits, such as the MO-R80C and MO-R23A.

Condition 7(b)(2) This condition requires the permittee to specify the BMPs at this facility. This is deemed necessary so that the department can monitor the facility's activities and potential discharges. This is a common requirement for a SWPPP and is listed in many general permits, such as the MO-R80C and MO-R23A.

Condition 7(b)(3) This condition requires the permittee to specify the schedule for implementing the BMPs at this facility. This is deemed necessary so that the department can monitor the facility's activities and potential discharges. This is a common requirement for a SWPPP and is listed in many general permits, such as the MO-R80C and the MO-R23A.

Condition 7(b)(4) This condition requires the permittee to specify how RCRA and CERCLA requirements are being met. This is deemed necessary so that the department can monitor the facility's activities and potential discharges. This is a common requirement for a SWPPP and was deemed necessary due to the previous materials stored onsite.

Condition 7(b)(5) This condition was deemed necessary due to the onsite vehicle maintenance shop. This condition was taken from a recent department template for industrial stormwater facilities and was also suggested by section 2.1.2.4 of the EPA 2008 MSGP.

Condition 7(b)(6) This condition requires the permittee to designate an individual who will be responsible for environmental matters at the facility. This is deemed necessary so the facility will have a person who is specifically designated. This condition was taken from a recent department template for industrial stormwater facilities.

Condition 7(b)(7) The requirement for training is important so that the facility maintains staff that are properly trained. This condition was taken from a recent department template for industrial stormwater facilities and was retained from the previous permit. This was also suggested by sections 2.1.2.9 and 8.P.3.2 of the EPA 2008 MSGP.

Condition 7(b)(8) This condition was deemed necessary due to the addition of benchmarking in this permit. The permittee is to document all outfall testing and updates based on such testing. The period of five years is set due to the permit cycle being five years.

Condition 7(b)(9) This condition was taken from a recent department template for industrial stormwater facilities. The original language was slightly modified to clarify what needs to be inspected and documented, since documenting any potential general water quality criteria violation must be a part of the inspections. In addition, the original language was modified to clarify that the permittee did not need to notify the department of all minor corrections of deficiencies. The twice per month frequency was taken both from a recent department template and deemed necessary due to the previous violations at the facility.

Condition 7(b)(10) This condition was deemed necessary due to the large storage piles located at the facility. This condition was taken from other stormwater permits and also suggested by sections 2.1.2.1, 2.1.2.6, 2.1.2.7 of the EPA 2008 MSGP. It is recommended that the permittee consider using the following Best Management Practices at the facility:

1. Limit storage time of materials to prevent degradation and generation of leachate;
2. Divert stormwater around material piles with ditches, swales, and/or berms;

3. Cover and/or enclose material piles to prevent contact with storm water by using silos, van trailers, sheds, roofs, buildings, or tarps;
4. Provide sediment and erosion control sufficient to prevent or control sediment loss off of the property.

Condition 7(b)(11) This condition is a requirement that is in newer stormwater permits, such as the MO-R23A general permit. This condition is based on 10 CSR 20-7.031(2). The condition is applicable to any outfall that is added to the permit as of September 1, 2008, which is the date the Antidegradation Implementation Procedure went into effect. The actual Antidegradation Implementation Procedure was specifically written for wastewater discharges but applies in principle to stormwater discharges as well. The website describing the implementation is located at the following website: http://www.dnr.mo.gov/env/wpp/permits/antideg-implementation.htm. As of January 6, 2011, the following presentation was linked within this webpage, describing the method of applying antidegradation to stormwater: http://www.dnr.mo.gov/env/wpp/permits/ADsth2o.pdf

Condition 7(c) This section specifies the minimum Best Management Practices that must be followed by the permittee. These also represent non-numeric (or narrative), technology-based effluent limitations as used in the EPA 2008 MSGP. These are being required in lieu of numeric effluent limitations for stormwater discharges.

Condition 7(c)(1) This condition is deemed necessary due to the vehicle maintenance shop located at the facility and was taken from a recent department template. It is also in accordance with section 2.1.2.4 of the EPA 2008 MSGP.

Condition 7(c)(2) This condition is deemed necessary due to the vehicle maintenance shop located at the facility and was taken from a recent department template. It is also in accordance with section 2.1.2.1 of the EPA 2008 MSGP.

Condition 7(c)(3) This condition is deemed necessary due to the vehicle maintenance shop located at the facility and was taken from a recent department template. It is also in accordance with section 2.1.2.1 of the EPA 2008 MSGP.

Condition 7(c)(4) This condition is deemed necessary in order to protect general water quality criteria of each receiving stream and was taken from a recent department template. It is also in accordance with sections 2.1.2.2 and 8.P.3.1 of the EPA 2008 MSGP.

Condition 7(c)(5) This condition is deemed necessary in order to protect general water quality criteria of each receiving stream and was taken from a recent department template. It is also in accordance with sections 2.1.2.5 and 2.1.2.6 of the EPA 2008 MSGP.

Condition 7(c)(6) This condition is deemed necessary in order to protect the general water quality criteria of the receiving stream and to comply with antidegradation requirements where applicable. In addition, this condition was taken from section 2.1.2.1 of the EPA 2008 MSGP.

Condition 7(c)(7) This condition is deemed necessary in order to protect the general water quality criteria of the receiving stream and was taken from section 2.1.2.4 of the EPA 2008 MSGP. It is also deemed applicable due to the fueling sites located at the facility.

Condition 7(c)(8) This condition is deemed necessary as a common-sense extension of permit requirements in order to meet applicable permit limits and benchmarks in addition to protecting the general water quality criteria of each receiving stream and was taken from sections 2.1.2.5 and 2.1.2.6 of the EPA 2008 MSGP.

Condition 7(c)(9) This condition is deemed necessary in order to prevent the transfer of contaminants from one watershed to other watersheds and was taken from section 2.1.2.12 of the EPA 2008 MSGP. The permittee is required to monitor discharges only at the facility's outfall; therefore transferring contaminants off the facility or to other watersheds may not allow them to be identified in the resulting discharges.

Condition 7(d) This condition provides definitions and explains the purpose of the SWPPP. The condition also provides further direction on when exceeding a benchmark would lead to a permit violation. This condition was taken from a recent department template for industrial stormwater facilities and was modified based on other site-specific permits being developed. The original template language stated that the purpose of the SWPPP and BMPs is to "prevent pollution", while the language used in this permit is that the SWPPP and BMPs are "to prevent, or to sufficiently reduce, pollutants." In addition, the original language used the phrase "deficiency of a BMP", while this permit defines "deficiency of the combined BMPs used within an outfall's watershed." A similar condition is also included in other general permits. An added phrase about routine maintenance was taken from the MO-G50 general permit. It was explained that it is a violation to exceed a numeric effluent limit. It was also explained that it is a violation to cause a water quality violation "directly attributed to the facility's discharge." Further, it was explained that it is a violation to not take corrective action after identifying a deficiency of a BMP or when the permittee does not review and update the SWPPP and implement necessary changes to the BMPs after a deficiency is discovered,

Condition #8 This Special Condition was deemed necessary due to the previously elevated temperatures documented at the outfall. The wording for the condition was taken from 10 CSR 20-7.031(4)(D) and Table A.

Condition #9 The requirement to submit an annual report provides an opportunity for the permittee to report certain events and conditions while not requiring reporting at a frequency that might be a reporting burden. This Special Condition was taken from condition 2 of the most recent MO-R80E general permit template.

Condition #10 This explanation is deemed necessary due to the vehicle maintenance shop located at the facility and other materials stored and processed at the site. This Special Condition was taken from a department template and other general permits, such as the MO-R80C.

Condition #11 This condition is deemed necessary due to the handling of zinc-bearing materials and the vehicle maintenance shop. The condition also covers other potential spills at the facility. This condition provides emergency contact information for the permittee. This Special Condition was taken from a department template and other general permits, such as the MO-R23A. Further, this is originally based on a condition in Standard Condition Part I. The language was modified to expand the definition to any event that may endanger health or the environment.

Condition #12 This Special Condition is deemed necessary due to previous and current toxics handled at the facility and was taken from a department template. This condition describes the required testing for Whole Effluent Toxicity. This is required in lieu of requiring additional monitoring for unknown pollutants. If the facility's discharges cause failures of WET tests, the permittee may be required to conduct a Toxicity Reduction Evaluation (TRE) or a Toxicity Identification Evaluation (TIE). Then pollutant-specific monitoring, benchmarks, and/or effluent limitations could be included in the permit.

Condition #13 This Special Condition further explains the WET test requirements and was taken from a department template.

Requirements entitled "Permit Transfer", "Permit Renewal Requirements", "Termination", and "Duty of Compliance"
These conditions are included in every Missouri State Operating Permit issued from the Missouri Department of Natural Resources' Northeast Regional Office.

Additional comments regarding sampling pH onsite:

Some facilities have collected a grab sample for pH and shipped the sample to a laboratory for analysis. This is not the correct procedure. pH is to be taken instantaneously, in the field, whenever possible. pH holding time is limited to no more than 15 minutes from taking the grab sample, as required by Standard Method for the Examination of Water and Wastewater.

Part II – Operator Certification Requirements

Not Applicable ☒; This facility is not required to have a certified operator.

Part III – Receiving Stream Information

APPLICABLE DESIGNATIONS OF WATERS OF THE STATE:

As per Missouri's Effluent Regulations [10 CSR 20-7.015], the waters of the state are divided into the below listed seven (7) categories. Each category lists effluent limitations for specific parameters, which are presented in each outfall's Effluent Limitation Table and further discussed in the Derivation & Discussion of Limits section.

Missouri or Mississippi River [10 CSR 20-7.015(2)]: ☐
Lake or Reservoir [10 CSR 20-7.015(3)]: ☐
Losing [10 CSR 20-7.015(4)]: ☐
Metropolitan No-Discharge [10 CSR 20-7.015(5)]: ☐
Special Stream [10 CSR 20-7.015(6)]: ☐
Subsurface Water [10 CSR 20-7.015(7)]: ☐
All Other Waters [10 CSR 20-7.015(8)]: ☒

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

RECEIVING STREAM(S) TABLE:

WATERBODY NAME	CLASS	WBID	DESIGNATED USES*	8-DIGIT HUC	EDU**
Unnamed tributary to Weaver Branch	U	N/A	General Criteria	07110001	Central Plains / Cuivre / Salt
Fox River	P	00038	AQL, LWW, WBC(B)***, SCR		

* - Irrigation (IRR), Livestock & Wildlife Watering (LWW), Protection of Warm Water Aquatic Life and Human Health-Fish Consumption (AQL), Cool Water Fishery(CLF), Cold Water Fishery (CDF), Whole Body Contact Recreation (WBC), Secondary Contact Recreation (SCR), Drinking Water Supply (DWS), Industrial (IND), Groundwater (GRW).
** - Ecological Drainage Unit
*** - UAA has not been conducted.

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

RECEIVING STREAM MONITORING REQUIREMENTS:

No receiving water monitoring requirements recommended at this time.

Part IV – Rationale and Derivation of Effluent Limitations & Permit Conditions

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

Not Applicable ☒; The facility does not discharge to a Losing Stream as defined by [10 CSR 20-2.010(36)] & [10 CSR 20-7.031(1)(N)], or is an existing facility.

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

☒ - New facility, backsliding does not apply.

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

☒ - This is an existing discharge but a new operating permit. The antidegradation review is being required in the facility's SWPPP. The permittee provided a SWPPP as part of the application to modify the permit. The SWPPP included an analysis of the Best Management Practices (BMPs) to be used at the site. This analysis was to be a structured evaluation of BMPs that are reasonable and cost effective. The evaluation was also to include practices that are designed to be (a) non-degrading (b) less degrading, or (c) degrading of water quality. The chosen and implemented BMPs were to be the most reasonable and cost effective while ensuring that the highest statutory and regulatory requirements are achieved and the highest quality water attainable for the facility is discharged. The analysis also demonstrated why "no discharge" or "no exposure" was not a feasible alternative at the facility. This structured analysis of BMPs serves as the Antidegradation Review, fulfilling the requirements of the Missouri Clean Water Commission's regulation 10 CSR 20-7.031(2). The SWPPP is to be updated regularly as needed. The analysis in the SWPPP is not required to be approved by the department; however it must be provided to department personnel upon each inspection. This permit will also allow the permittee to have 90 days to update the facility SWPPP.

AREA-WIDE WASTE TREATMENT MANAGEMENT & CONTINUING AUTHORITY:
As per [10 CSR 20-6.010(8)(A)10.], when a Continuing Authority under paragraph 10 CSR 20-6.010(3)(B)1. or 2. is expected to be available for connection within the next five (5) years, any operating permit issued to a permittee under this paragraph, located within the service area of the paragraph (3)(B)1. or 2. facility, shall contain a certain special condition.

Not Applicable ☒; Since this facility is permitted only for stormwater and associated discharges, this requirement does not apply.

POLLUTANTS OF CONCERN (POC) & BENCHMARK LIMITATIONS:
This permit stipulates pollutant benchmarks applicable to the facility's discharge. The benchmarks do not constitute direct numeric effluent limitations. A benchmark exceedance alone, therefore, is not a permit violation. Benchmark monitoring data are used primarily to determine the overall effectiveness of a SWPPP and to assist the permittee in knowing when additional corrective action may be necessary to protect water quality. If a sample exceeds a benchmark concentration, the permittee must review the facility's

SWPPP and chosen BMPs to determine whether any improvement or additional controls are needed to reduce the concentration of that pollutant in the facility's stormwater discharge(s). Failure to improve BMPs and achieve compliance with the Benchmarks is a permit violation.

The chosen POCs are parameters that were taken from other general permits and/or the EPA 2008 Multi-sector general permit, or were parameters that had water quality criteria associated with activities identified as being present at the facility. Please see the Derivation and Discussion of Limits/Monitoring section below for further information on each individual pollutant. Each benchmark limitation was set at the water quality standard [from 10 CSR 20-7.031]. The exceptions were Total Suspended Solids and Total Settleable Solids, which were taken from other general permits. The philosophy of benchmark limitations was taken from recent general-permits templates such as the MO-R23A and the EPA 2008 Multi-sector general permit.

BIOSOLIDS, SLUDGE, & SEWAGE SLUDGE:
Bio-solids are solid materials resulting from wastewater treatment that meet federal and state criteria for beneficial uses (i.e. fertilizer). Sludge is any solid, semi-solid, or liquid waste generated from a municipal, commercial, or industrial wastewater treatment plant, water supply treatment plant, or air pollution control facility or any other such waste having similar characteristics and effect. Sewage sludge is solids, semi-solids, or liquid residue generated during the treatment of domestic sewage in a treatment works; including but not limited to, domestic septage; scum or solids removed in primary, secondary, or advanced wastewater treatment process; and a material derived from sewage sludge. Sewage sludge does not include ash generated during the firing of sewage sludge in a sewage sludge incinerator or grit and screening generated during preliminary treatment of domestic sewage in a treatment works. Additional information regarding biosolids and sludge is located at the following web address: http://dnr.mo.gov/env/wpp/pub/index.html, items WQ422 through WQ449.

Not Applicable ☒; This condition is not applicable to the permittee for this specific facility, since there is no domestic sewage.

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.

Applicable ☒; The permittee/facility is currently under enforcement action due to hazardous waste issues and water pollution issues. The primary water pollution issue is operating without a Missouri State Operating Permit that permits the discharge of stormwater from the facility. The attached draft permit will address that issue. In addition, specific pollutants of concern listed in the NOV as having exceeded the water quality standards were Ammonia (11.6 mg/L at SW-02), pH (11.87 SU at SW-02), Temperature (35.1 °C at SW-02 and 37.7°C at SW-03), Copper (33.1 µg/L in the blink duplicate at SW-02), and Hexavalent Chromium (45.6 µg/L at SW-03). The facility was required to clean up the contamination at the site prior to this permit being issued.

PRETREATMENT PROGRAM:
The reduction of the amount of pollutants, the elimination of pollutants, or the alteration of the nature of pollutant properties in wastewater prior to or in lieu of discharging or otherwise introducing such pollutants into a Publicly Owned Treatment Works [40 CFR Part 403.3(q)].

Not Applicable ☒; The permittee, at this time, is not required to have a Pretreatment Program since this permit is to discharge only stormwater runoff.

REASONABLE POTENTIAL ANALYSIS (RPA):
Federal regulation [40 CFR Part 122.44(d)(1)(i)] requires effluent limitations for all pollutants that are or may be discharged at a level that will cause or have the reasonable potential to cause or contribute to an in-stream excursion above narrative or numeric water quality standard.

In accordance with [40 CFR Part 122.44(d)(iii)] if the permit writer determines that any give pollutant has the reasonable potential to cause, or contribute to an in-stream excursion above the WQS, the permit must contain effluent limits for that pollutant.

Not Applicable ☒; An actual RPA was not conducted for this facility, since this facility discharges only stormwater. Instead, a Reasonable Potential Determination was performed to determine the pollutants that would be included in the permit as monitoring only with benchmark limitations set to the water quality standard. Any parameter which was found to be near the water quality standard was included for the first five years of this permit. The acute water quality standard (at 162 mg/L hardness) was used as a baseline. It is recommended that another Reasonable Potential Determination be performed at the next renewal.

REMOVAL EFFICIENCY:
Removal efficiency is a method by which the Federal Regulations define Secondary Treatment and Equivalent to Secondary Treatment, which applies to Biochemical Oxygen Demand 5-day (BOD_5) and Total Suspended Solids (TSS) for Publicly Owned Treatment Works (POTWs)/municipals. Please see the United States Environmental Protection Agency's (EPA) website for interpretation of percent removal requirements for National Pollutant Discharge Elimination System Permit Application Requirements for Publicly Owned Treatment Works and Other Treatment Works Treating Domestic Sewage @ www.epa.gov/fedrgstr/EPA-WATER/1999/August/Day-04/w18866.htm .

Not Applicable ☒; This facility is not a POTW and only discharges stormwater. Influent monitoring is not being required to determine percent removal.

SANITARY SEWER OVERFLOWS (SSOS), BYPASSES, INFLOW & INFILTRATION (I&I) – PREVENTION/REDUCTION:
Sanitary Sewer Systems (SSSs) are municipal wastewater collection systems that convey domestic, commercial, and industrial wastewater, and limited amounts of infiltrated groundwater and storm water (i.e. I&I), to a POTW. SSSs are not designed to collect large amounts of storm water runoff from precipitation events.

Not Applicable ☒; This facility is permitted to discharge only stormwater and does not have a wastewater collection system. Therefore this facility is not required to develop or implement a program for maintenance and repair of the collection system; however, it is a violation of Missouri State Environmental Laws and Regulations to allow untreated wastewater to discharge to waters of the state.

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

Not Applicable ☒; This permit does not contain a SOC.

STORM WATER POLLUTION PREVENTION PLAN (SWPPP):
In accordance with 40 CFR 122.44(k) *Best Management Practices (BMPs)* to control or abate the discharge of pollutants when: (1) Authorized under section 304(e) of the Clean Water Act (CWA) for the control of toxic pollutants and hazardous substances from ancillary industrial activities: (2) Authorized under section 402(p) of the CWA for the control of storm water discharges; (3) Numeric effluent limitations are infeasible; or (4) the practices are reasonably necessary to achieve effluent limitations and standards or to carry out the purposes and intent of the CWA.

In accordance with the EPA's *Developing Your Stormwater Pollution Prevention Plan, A Guide for Industrial Operators*, (Document number EPA 833-B-09-002) [published by the United States Environmental Protection Agency (USEPA) in February 2009], BMPs are measures or practices used to reduce the amount of pollution entering (regarding this operating permit) waters of the state. BMPs may take the form of a process, activity, or physical structure.

Additionally in accordance with the Storm Water Management, a SWPPP is a series of steps and activities to (1) identify sources of pollution or contamination, and (2) select and carry out actions which prevent or control the pollution of storm water discharges.

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

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.

WATER QUALITY STANDARDS:
Per [10 CSR 20-7.031(3)], General Criteria shall be applicable to all waters of the state at all times including mixing zones. Additionally, [40 CFR 122.44(d)(1)] directs the department to establish in each NPDES permit to include conditions to achieve water quality established under Section 303 of the Clean Water Act, including State narrative criteria for water quality.

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

Not Applicable ☒; Wasteload allocations were not calculated. The parameters included in this permit were required as monitoring only with numeric benchmarks set at the water quality standard. There is no mixing zone allowed for this discharge.

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

Not Applicable ☒; A WLA study was either not submitted or determined not applicable by department staff.

WATER QUALITY STANDARDS:
Per [10 CSR 20-7.031(3)], General Criteria shall be applicable to all waters of the state at all times including mixing zones. Additionally, [40 CFR 122.44(d)(1)] directs the Department to establish in each NPDES permit to include conditions to achieve water quality established under Section 303 of the Clean Water Act, including State narrative criteria for water quality.

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

Applicable ☒;
Under the federal Clean Water Act (CWA) §101(a)(3), requiring WET testing is reasonably appropriate for site-specific Missouri State Operating Permits for discharges to waters of the state issued under the National Pollutant Discharge Elimination System (NPDES). WET testing is also required by 40 CFR 122.44(d)(1). WET testing ensures that the provisions in the 10 CSR 20-6.010(8)(A)7. and the Water Quality Standards 10 CSR 20-7.031(3)(D),(F),(G),(I)2.A & B are being met. Under [10 CSR 20-6.010(8)(A)4], the Department may require other terms and conditions that it deems necessary to assure compliance with the Clean Water Act and related regulations of the Missouri Clean Water Commission. In addition the following MCWL apply: §§§644.051.3 requires the Department to set permit conditions that comply with the MCWL and CWA; 644.051.4 specifically references toxicity as an item we must consider in writing permits (along with water quality-based effluent limits, pretreatment, etc.); and 644.051.5 is the basic authority to require testing conditions. WET test will be required by <u>all</u> facilities meeting the following criteria:

☐ Facility is a designated Major.
☐ Facility continuously or routinely exceeds its design flow.
☐ Facility (industrial) that alters its production process throughout the year.
☒ Facility handles large quantities of toxic substances, or substances that are toxic in large amounts.
☐ Facility has Water Quality-based Effluent Limitations for toxic substances (other than NH_3)
☐ Facility is a municipality or domestic discharger with a Design Flow $\geq$ 22,500 gpd.
☒ Other – This facility previously had several toxic and/or hazardous materials onsite. The WET test is being required to determine if the discharge from this facility is toxic. If the facility fails a WET test, this would indicate that the department needs to look further into this facility and possibly add numeric effluent limits and/or identify additional parameters that need to be monitored, etc.

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

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

Applicable ☒;
The Fox River (00038) is listed on the proposed 2010 and final 2008 Missouri 303(d) List for Bacteria from Rural Non-Point Sources.

☒ – This facility is not considered to be a source of the above listed pollutant(s) or considered to contribute to the impairment of Fox River. In addition, the discharge is over four miles away from the classified stream.

Part V – Effluent Limits Determination

Outfall #001 – Main Facility Outfall

Effluent limitations (monitoring) as listed in the below Effluent Limitations Table are based on the submitted application for a Missouri State Operating Permit and pollutant monitoring conducted by the department and by the permittee's consultant. Future permit action due to facility modification may contain new operating permit terms and conditions that supersede the terms and conditions of this operating permit. In addition, please note that several parameters also have benchmark limitations, an exceedance of which does not automatically mean a permit violation.

EFFLUENT LIMITATIONS TABLE:

PARAMETER	UNIT	BASIS FOR LIMITS	DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MODIFIED	PREVIOUS PERMIT LIMITATIONS
Flow	MGD	1	*		*	N/A	**
Biochemical Oxygen Demand$_5$	mg/L	9	*		*	N/A	**
Chemical Oxygen Demand	mg/L	9	*		*	N/A	**
Total Settleable Solids	mg/L	9	*		*	N/A	**
Total Suspended Solids	mg/L	9	*		*	N/A	**
pH	SU	9	*		*	N/A	**
Ammonia as N	mg/L	9	*		*	N/A	**
Temperature	ºC	9	*		*	N/A	**
Conductivity	µS/cm @25°C	9	*		*	N/A	**
Oil & Grease	mg/L	9	*		*	N/A	**
Chromium (VI), Total Dissolved	mg/L	9	*		*	N/A	**
Copper, Total Dissolved	mg/L	9	*		*	N/A	**
Nickel, Total Dissolved	mg/L	9	*		*	N/A	**
Selenium, Total Dissolved	mg/L	9	*		*	N/A	**
Zinc, Total Dissolved	mg/L	9	*		*	N/A	**
Sulfate + Chloride	mg/L	9	*		*	N/A	**
Hardness as $CaCO_3$, Total	mg/L	9	*		*	N/A	**
Precipitation	inches	9	*		*	N/A	**
Cadmium (Cd), Dissolved	mg/L	9	*		*	N/A	**
Iron (Fe), Dissolved	mg/L	9	*		*	N/A	**
Phenol	mg/L	9	*		*	N/A	**
Dissolved Oxygen	mg/L	9	*		*	N/A	**

Arsenic (As), Total Dissolved	mg/L	9	*		*	N/A	**
Chromium (III), Total Dissolved	mg/L	9	*		*	N/A	**
Mercury (Hg), Total Recoverable	mg/L	9	*		*	N/A	**
Lead (Pb), Total Dissolved	mg/L	9	*		*	N/A	**
Best Management Practices Plan	See 40 CFR 122.44 (k) and 10 CSR 20-6.200						
Whole Effluent Toxicity (WET) Test	% Survival	11	Please see WET Test in the Derivation and Discussion Section below.				
MONITORING FREQUENCY	Please see Minimum Sampling and Reporting Frequency Requirements in the Derivation and Discussion Section below.						

* Monitoring requirement only.
** Parameter not previously established in a previous state operating permit.
N/A Not applicable

Basis for Limitations Codes:

1. State or Federal Regulation/Law
2. Water Quality Standard (includes RPA)
3. Water Quality Based Effluent Limits
4. Lagoon Policy
5. Ammonia Policy
6. Dissolved Oxygen Policy
7. Antidegradation Policy
8. Water Quality Model
9. Best Professional Judgment
10. TMDL or Permit in lieu of TMDL
11. WET Test Policy
12. Antidegradation Review

OUTFALL #001 – DERIVATION AND DISCUSSION OF LIMITS:

The goal of the permittee should be to keep pollutants (potentially generated from any onsite operations/activities/handling or as a result of the storage of any material) from getting into the stormwater in the first place rather than treating stormwater after it has been contaminated (prior to discharge). This permit includes non-narrative effluent limitations that are intended to serve this purpose. Numeric effluent limitations are not being imposed, since the imposed technology-based, non-numeric effluent limits contained within this permit are considered sufficient. In addition, there is no designated statistical storm event contained within the Missouri Clean Water Commission Regulations with which to calculate a limit for stormwater discharges based on water quality standards.

- **Flow**. Monitoring only. 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 design flow is approximately 0.35 MGD (or approximately 0.54 cubic feet per second (cfs)) according to the permittee, based on the actual discharge from a 10-year, 24-hour storm. This is not an effluent limitation.

  The permittee is being required to monitor flow once per month, since the facility is in enforcement and the discharge is from a stormwater basin. The permittee shall inspect this facility at reasonable intervals to determine if the basin is discharging and monthly at a minimum. This will ensure that the permittee reports no discharge only when there has been no flow from the facility.

- **Biochemical Oxygen Demand (five-day).** Monitoring only. This parameter is being required in order to correlate the effluent concentration with dissolved oxygen. In addition, this facility has identified several materials stored onsite that have the potential to contribute a biochemical oxygen demand in the receiving stream. In addition, the facility was documented as previously having low dissolved oxygen in the effluent. Monitoring this parameter will ensure that the facility monitors its discharge for oxygen-reducing pollutants. This parameter should be re-examined upon renewal.

- **Chemical Oxygen Demand.** Monitoring only (benchmark limitation). This parameter is being required, since the facility was documented as previously having low dissolved oxygen in the effluent. Monitoring this parameter will ensure that the facility monitors its discharge for oxygen-reducing pollutants. In addition, this parameter is listed as a benchmark in the MO-R23A general permit. The fact sheet for the MO-R23A permit stated the following: "Effluent limits consistent with other industrial storm water facilities. These effluent limits have been demonstrated to be attainable with SWPPPs & existing technology, and are deemed protective of instream water quality." The benchmark was set at the same benchmark in the MO-R23A permit, which is 90 mg/L.

- **Total Settleable Solids.** Monitoring only (benchmark limitation). This parameter is being required, since these are stormwater discharges that will likely pick up particulates as the water flows along the ground to the outfalls. This is deemed necessary due to the onsite storage of ZBMs, the onsite stockpiles of diatomaceous earth, manure, and other potential contaminants, and the history of the site as having spilled materials. [10 CSR 20-7.031(4)(H)]. The BMPs should be designed so that they remove the majority of the solids prior to discharge. Monitoring for this parameter with a benchmark limit will require the permittee to review and improve their BMPs in order to protect general water quality in the receiving stream. Monitoring is being required as a basis for monitoring BMP effectiveness. The benchmark limitation is set to 1.5 mL/L/hr, which is based on the daily maximum effluent limit contained within other operating permits, such as the MO-R240 general permit template for Agrichemical facilities.

- **Total Suspended Solids.** Monitoring only (benchmark limitation). This parameter is being required, since these are stormwater discharges that will likely pick up particulates as the water flows along the ground to the outfalls. This is deemed necessary due to the onsite storage of ZBMs, the onsite stockpiles of diatomaceous earth, manure, and other potential contaminants, and the history of the site as having spilled materials. [10 CSR 20-7.031(4)(G)]. Monitoring for this parameter with a benchmark limit will require the permittee to review and improve their BMPs in order to protect general water quality in the receiving stream. Monitoring is being required as a basis for monitoring BMP effectiveness. The BMPs should be designed so that they remove the majority of the solids prior to discharge. The benchmark limitation is set to 50 mg/L, which is based on the benchmark in the MO-R80C and MO-R23A general permits.

- **pH**. Monitoring only (benchmark limitation). This is deemed required, since pH is a common pollutant in almost every MSOP and is a water quality standard. Benchmark range is from 6.5 to 9.0 standard pH units (SU) as per regulation [10 CSR 20-7.031(E)]. This is also taken as a benchmark from the MO-R23A template.

- **Total Ammonia Nitrogen**. Monitoring only (benchmark limitation). Previous testing showed high levels of Ammonia being discharged from this facility. The benchmark limitation is based on the acute criteria equation [10 CSR 20-7.031(4)(B)7. & Table B1], since the discharge is stormwater only.

- **Temperature.** Monitoring requirement due to the included special condition and previous elevated temperatures documented at this facility. The permittee argued that the previous testing was from water pools that had been warmed by the sun, however one of the department inspectors verbally indicated that the temperature was from the basin discharge, which was flowing at the time of the inspection. This can be seen from images 42 through 45 of the initial inspection report (045 TNT Initial Inspection & Investigation Report cgr mmo 061010.doc). An actual numeric effluent limitation is not being imposed, since the standard is for temperature within the classified stream. [10 CSR 20-7.031(4)(D)]. General water quality criteria must still be protected, therefore the special condition is for the discharge.

- **Conductivity**. Monitoring is required, because elevated conductivity is an indicator of contaminants in water. Stormwater, before it contacts materials, has a very low conductivity. This parameter is deemed necessary as an additional indicator, which can be monitored onsite and is an instantaneous measure of problems. The parameter was suggested by the MO-R240 general permit. No benchmark is being required. This parameter is included to obtain data for facility discharges, which will be reviewed at the first renewal. Microsiemens per centimeter (µS/cm) is the same as micromhos per centimeter (µmhos/cm).

- **Oil & Grease**. Monitoring only (benchmark limitation). Since the facility maintains a vehicle maintenance shop that used to be connected to the sedimentation basin and this is a general trucking facility, the facility is being required to monitor for this pollutant with benchmark limits set for protection of aquatic life. The benchmark limit was also suggested by the MO-R80C general permit template. Benchmark is set to 10 mg/L.

- **Hardness and Precipitation**. Monitoring only. Flow is dependent on precipitation, therefore precipitation is being required to correlate to flow values. This will ensure that the permittee reports "no discharge" only when there has been no flow from the facility. In addition, some metals are hardness dependent. The flow travels over four miles in an unclassified tributary before entering the classified section; therefore the permittee is being required to determine the hardness of the discharge instead of the receiving stream.

- **Dissolved Oxygen**. Monitoring only (benchmark limitation). Protection of aquatic life. [10 CSR 20-7.031(4)(J) and Table A]. The benchmark is required based on the depressed concentrations sampled during department inspections. The benchmark is set to the water quality criterion, though the classified section of the waterbody is greater than four miles away from the discharge. The benchmark is set to the criterion for warm-water fisheries and is a daily minimum of 5 mg/L.

- **Sulfate + Chloride**. Monitoring only (benchmark limitation). Protection of aquatic life. [10 CSR 20-7.031(4)(L) and Table A]. The benchmark is required based on previously elevated values of this parameter discovered onsite during department inspections.

Metals
Effluent limitations for total recoverable metals are normally developed using methods and procedures outlined in the "Technical Support Document for Water Quality Based Toxic Controls" (EPA/505/2-90-001) and "The Metals Translator: Guidance for Calculating a Total Recoverable Permit Limit from a Dissolved Criterion" (EPA 823-B-96-007). Since this facility discharges only stormwater and there are no numeric effluent limitations being required for metals, these translators were not used. Instead, the permit is requiring monitoring (as well as benchmark limits) to compare with the water quality standard. The water quality criterion for protection of aquatic life is a dissolved standard (as required by 10 CSR 20-7.031(4)(B)2.A.(II)), therefore benchmark monitoring is for the dissolved constituents of these metals.

- **Hexavalent Chromium (VI), Total Dissolved**. Monitoring only (benchmark limitation). Previous testing showed that this facility has discharged this parameter at a level above the water quality standard. Benchmark is set to the Protection of Aquatic Life acute criteria = 15 µg/L.

- **Copper, Total Dissolved**. Monitoring only (benchmark limitation). Previous testing showed that this facility has discharged this parameter at a level above the water quality standard. Benchmark is set to the Protection of Aquatic Life acute criteria equation.

- **Nickel, Total Dissolved**. Monitoring only (benchmark limitation). Previous testing showed that this facility has discharged this parameter at a level above the water quality standard. Benchmark is set to the Protection of Aquatic Life acute criteria equation.

- **Zinc, Total Dissolved**. Monitoring only (benchmark limitation). Previous testing showed that this facility has discharged this parameter at a level above the water quality standard. Benchmark is set to the Protection of Aquatic Life acute criteria equation.

- **Selenium, Total Dissolved**. Monitoring only (benchmark limitation). Previous testing showed that this facility has discharged this parameter at a level above the water quality standard. Benchmark is set to the Protection of Aquatic Life chronic criteria = 5 µg/L. The chronic criterion was used, since there is no acute standard.

- **Cadmium (dissolved), Iron (dissolved), Phenols.** Monitoring only (benchmark limitations). Previous testing showed that this facility has discharged these parameters at close to the water quality standard. Therefore these parameters are being used as benchmarks for updating the SWPPP and BMPs. The goal of this Missouri State Operating Permit is to minimize discharges of pollutants from this facility and to protect the water quality of waters of the state. The SWPPP and BMPs shall be designed and updated so that, as much as practical, only stormwater is discharged from this facility. The benchmarks are set to the Protection of Aquatic Life chronic criteria for Dissolved Iron (1,000 mg/L), the Protection of Aquatic Life acute criteria equation for Cadmium, and the Protection of Aquatic Life chronic criteria for Phenol (100 µg/L). The chronic criteria were used when there was no acute criterion for the parameter.

- **Chromium III (dissolved), Arsenic (dissolved), Lead (dissolved), Mercury (total recoverable).** Monitoring only. Both the EPA and the department's own Hazardous Waste Enforcement Unit made comments regarding to the processes and materials that are proposed to be onsite at the facility. It was requested that the draft permit be modified to require TNT to monitor for this pollutants, given that the hazardous materials managed at the site can be expected to contain these metals at appreciable levels. It was stated that concentrations of these metals in stormwater runoff might in fact be greater during future stormwater events than what has been measured to date. The permit therefore will require testing for these parameters at a frequency of once per year. Upon renewal, the test results will be assessed to determine if imposing effluent limits or benchmarks is warranted.

- **WET Test**. WET testing schedules and intervals are established in accordance with the Department's Permit Manual; Section 5.2 *Effluent Limits / WET Testing for Compliance Bio-monitoring.* It is recommended that WET testing be conducted during the period of lowest stream flow.

  ☒ Acute (default)

  ☐ No less than **ONCE/PERMIT CYCLE:**
  - ☐ Municipality or domestic facility with a design flow ≥ 22,500 gpd, but less than 1.0 MGD.
  - ☐ Other, please justify.

  ☐ No less than **ONCE/YEAR:**
  - ☐ Facility is designated as a Major facility or has a design flow ≥ 1.0 MGD.
  - ☐ Facility continuously or routinely exceeds their design flow.
  - ☐ Facility exceeds its design population equivalent (PE) for BOD_5 whether or not its design flow is being exceeded.
  - ☐ Facility has Water Quality-based effluent limitations for toxic substances (other than NH_3).

  ☒ No less than **TWICE/YEAR:**
  - ☐ Facility is subject to production processes alterations throughout the year.
  - ☒ Facility handles large quantities of toxic substances, or substances that are toxic in large amounts.
  - ☒ Facility has been granted seasonal relief of numeric limitations.

There are no numeric effluent limitations for this discharge. Therefore a Whole Effluent Toxicity test is being required twice per year during a rainfall event that produces a discharge. This test will show if the discharge is toxic. A failed WET test will then require additional testing to show why the discharge is toxic, such as identifying the presence of additional parameters that may need to be monitored.

Acute and/or Chronic Allowable Effluent Concentrations (AECs) for facilities that discharge to unclassified, Class C, Class P (with default Mixing Considerations), or Lakes [10 CSR 20-7.031(4)(A)4.B.(IV)(b)] are 100%, 50%, 25%, 12.5%, & 6.25%.

- **Minimum Sampling and Reporting Frequency Requirements**.

PARAMETER	SAMPLING FREQUENCY	REPORTING FREQUENCY
Flow	once/month	once/quarter
Biochemical Oxygen Demand$_5$	once/quarter	once/quarter
Chemical Oxygen Demand	once/quarter	once/quarter
Total Settleable Solids	once/quarter	once/quarter
Total Suspended Solids (TSS)	once/quarter	once/quarter
pH	once/quarter	once/quarter
Ammonia as N	once/quarter	once/quarter
Temperature	once/quarter	once/quarter
Conductivity	once/quarter	once/quarter
Oil & Grease	once/quarter	once/quarter
Chromium (VI), Total Dissolved	once/quarter	once/quarter
Copper, Total Recoverable	once/quarter	once/quarter
Nickel, Total Recoverable	once/quarter	once/quarter
Selenium, Total Recoverable	once/quarter	once/quarter
Zinc, Total Recoverable	once/quarter	once/quarter
Sulfate + Chloride	once/quarter	once/quarter
Hardness as $CaCO_3$, Total	once/quarter	once/quarter
Precipitation	daily	once/quarter
Cadmium (Cd), Dissolved	once/quarter	once/quarter
Iron (Fe), Dissolved	once/quarter	once/quarter
Phenols	once/quarter	once/quarter
Dissolved Oxygen	once/quarter	once/quarter
Chromium (III), Total Dissolved	once/year	once/year
Mercury, Total Recoverable	once/year	once/year
Arsenic, Total Dissolved	once/year	once/year
Lead, Total Dissolved	once/year	once/year
WET Test	twice/year	twice/year
Best Management Practices Plan	update at least every five years	upon inspection only

Due to the nature of this facility and its history, quarterly monitoring is being required for the first five years. At renewal, the monitoring frequency may be reexamined to determine if twice per year monitoring or annual monitoring is sufficient for some parameters.

Part VI – Administrative Requirements

Based on 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.

PUBLIC NOTICE:
The Department shall give public notice that a draft permit has been prepared and its issuance is pending. Additionally, public notice will be issued if a public hearing is to be held because of a significant degree of interest in and water quality concerns related to a draft permit. No public notice is required when a request for a permit modification or termination is denied; however, the requester and permittee must be notified of the denial in writing.

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

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

☒ - The Public Notice period for this operating permit is tentatively schedule to begin on March 25, 2011 or is in process.

☐ - The Public Notice period for this operating permit was from April 15, 2011, to May 16, 2011. No responses received or responses to the Public Notice of this operating permit do not warrant the modification of effluent limits and/or the terms and conditions of this permit.

Date of Fact Sheet: March 1, 2011
Date of Public Notice: April 15, 2011

Submitted by

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Scott Adams Date

Philip R. Wilson Date

On May 19, 2011, both the permit and this factsheet were updated to add annual monitoring for Arsenic, Mercury, Lead, and Chromium III. This change was made due to requests from the Environmental Protection Agency's Region 7 office and the Missouri Department of Natural Resources' Hazardous Waste Enforcement Unit. Both the permittee and their consultant agreed to the change.