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-0136221
Owner:	National Beef Leathers, LLC
Address:	205 Florence Road, Saint Joseph, MO 65404
Continuing Authority:	same as above
Address:	same as above
Facility Name:	National Beef Leathers, LLC
Facility Address:	205 Florence Road, Saint Joseph, MO 65404
Legal Description:	SE ¼, SW ¼, Sec. 20, T57N, R35W, Buchanan County
UTM Coordinates:	see below
Receiving Stream:	Tributary to Missouri River
First Classified Stream and ID:	Missouri River (P) WBID# 0226; 303(d) List; TMDL
USGS Basin & Sub-watershed No.:	Walnut Creek – Missouri River USGS HUC12 # 10240011-0106

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

FACILITY DESCRIPTION

Hide tannery industrial stormwater; SIC # 3111; NAICS # 316110; process wastewater is pretreated on site and sent with domestic wastewater to the city of St. Joseph.

Outfall #001: X = 340618, Y = 4400021; Peak Discharge: 1.97 MGD
Outfall #002: X = 340884, Y = 4400207; Peak Discharge: 0.24 MGD

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

July 1, 2018
Effective Date

Edward B. Galbraith, Director, Division of Environmental Quality

June 30, 2023
Expiration Date

Chris Wieberg, Director, Water Protection Program

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

OUTFALL #001
Stormwater Only

TABLE A-1
FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective on **July 1, 2018** and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:

EFFLUENT PARAMETERS	UNITS	FINAL LIMITATIONS		BENCH-MARKS	MONITORING REQUIREMENTS	
		DAILY MAXIMUM	MONTHLY AVERAGE		MEASUREMENT FREQUENCY	SAMPLE TYPE
PHYSICAL						
Flow	MGD	*		-	once/quarter ◊	24 hr. estimate
Precipitation	inches	*		-	once/quarter ◊	24 hr. total
CONVENTIONAL						
Chemical Oxygen Demand	mg/L	**		155	once/quarter ◊	grab ∞
Oil & Grease	mg/L	15		-	once/quarter ◊	grab ∞
pH Ω	SU	6.5 to 9.0		-	once/quarter ◊	grab ∞
Total Suspended Solids	mg/L	100		-	once/quarter ◊	grab ∞
METALS						
Aluminum, Total Recoverable	µg/L	**		3,000	once/quarter ◊	grab ∞
Chromium (III), Total Recoverable	µg/L	**		414	once/quarter ◊	grab ∞
Chromium (VI), Dissolved	µg/L	**		53	once/quarter ◊	grab ∞
Copper, Total Recoverable	µg/L	**		44	once/quarter ◊	grab ∞
Iron, Total Recoverable	µg/L	**		4,500	once/quarter ◊	grab ∞
Zinc, Total Recoverable	µg/L	**		1,602	once/quarter ◊	grab ∞
NUTRIENTS						
Nitrogen, Total (TN)	mg/L	*		-	once/quarter ◊	grab ∞
Phosphorus, Total (TP)	mg/L	*		-	once/quarter ◊	grab ∞
OTHER						
Phenols, Total	µg/L	*		-	once/quarter ◊	grab ∞
4-chloro-3-methylphenol	µg/L	*		-	once/quarter ◊	grab ∞

MONITORING REPORTS SHALL BE SUBMITTED QUARTERLY; THE FIRST REPORT IS DUE OCTOBER 28, 2018.
THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

* Monitoring requirement only.

** Monitoring requirement with associated benchmark. See Special Conditions.

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

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

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (CONTINUED)

OUTFALL #002 *Stormwater Only*	**TABLE A-2** **FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS**

The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective on **July 1, 2018** and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:

EFFLUENT PARAMETERS	UNITS	FINAL LIMITATIONS		BENCH-MARKS	MONITORING REQUIREMENTS	
		DAILY MAXIMUM	MONTHLY AVERAGE		MEASUREMENT FREQUENCY	SAMPLE TYPE
PHYSICAL						
Flow	MGD	*		-	once/quarter ◊	24 hr. estimate
Precipitation	inches	*		-	once/quarter ◊	24 hr. total
CONVENTIONAL						
Chemical Oxygen Demand	mg/L	**		155	once/quarter ◊	grab ∞
Oil & Grease	mg/L	**		10	once/quarter ◊	grab ∞
pH Ω	SU	6.5 to 9.0		-	once/quarter ◊	grab ∞
Total Suspended Solids	mg/L	100		-	once/quarter ◊	grab ∞
METALS						
Chromium (III), Total Recoverable	µg/L	**		414	once/quarter ◊	grab ∞
Chromium (VI), Dissolved	µg/L	**		11	once/quarter ◊	grab ∞

MONITORING REPORTS SHALL BE SUBMITTED QUARTERLY; THE FIRST REPORT IS DUE OCTOBER 28, 2018.
THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

* Monitoring requirement only.

** Monitoring requirement with associated benchmark. See Special Conditions.

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

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

◊ Quarterly sampling

MINIMUM QUARTERLY SAMPLING REQUIREMENTS

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

B. STANDARD CONDITIONS

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

C. SPECIAL CONDITIONS

1. Permittee shall adhere to the following minimum Best Management and Good Housekeeping Practices (BMPs/GHPs):
   (a) Minimize the spillage, leakage, overspray, trackout, or other loss of fluids or solids which may enter stormwater. This includes but is not limited to: overspray or leakage of process wastewater; spilled solvents; leaking tanks or valving; or machinery which leak oil, grease, or fuel. Areas of concern include but are not limited to: pre-treatment basin, storage areas, former spill clean-up sites, vehicle maintenance, equipment cleaning areas, or warehousing areas. Prevention of stormwater pollution from these activities and areas will prevent the contamination of stormwater.
   (b) Provide collection facilities and arrange for proper disposal of waste products including but not limited to petroleum waste products, process wastes, and solvents.
   (c) Store all solvents, petroleum products and petroleum waste products (except fuels), paint, and storage containers (such as drums, cans, or cartons) so that these materials are not exposed to stormwater or provide other prescribed BMPs such as plastic lids and/or portable spill pans to prevent the commingling of stormwater with container contents. Commingled water may not be discharged under this permit. Provide spill prevention control, and/or management sufficient to prevent any spills of these pollutants from entering waters of the state. Any containment system used to implement this requirement shall be constructed of materials compatible with the substances contained and shall also prevent the contamination of groundwater. Any spills should be noted in the SWPPP.
   (d) Provide these minimum good housekeeping practices or equivalencies on the site as determined by the SWPPP.
      i. Storage Areas for Raw, Semiprocessed, or Finished Tannery Products or Byproducts: Minimize contamination of stormwater runoff from pallets and bales of raw, semiprocessed, or finished tannery products or byproducts (e.g., splits, trimmings, shavings). Consider indoor storage or protection with polyethylene wrapping, tarpaulins, roofed storage, etc. Consider placing materials on an impermeable surface and enclosing or putting berms (or equivalent measures) around the area to prevent stormwater run-on and runoff.
      ii. Receiving, Unloading, and Storage Areas: Minimize contamination of stormwater runoff from receiving, unloading, and storage areas. If these areas are exposed, consider the following (or their equivalents): covering all hides and chemical supplies, diverting drainage to the process sewer; or grade, berm, or curb the area to prevent stormwater runoff.
      iii. Contaminated Equipment: Minimize contact of stormwater with contaminated equipment. Consider the following (or their equivalents): covering equipment, diverting drainage to the process sewer, and cleaning equipment thoroughly prior to storage or prior to storm events causing contamination to be washed from the equipment.
      iv. Waste Management: Minimize contamination of stormwater runoff from waste storage areas. Consider the following (or their equivalents): covering dumpsters, moving waste management activities indoors, covering waste piles with temporary covering material such as tarpaulins or polyethylene, and minimizing stormwater runoff by enclosing the area or building berms around the area.
      v. Keep trash from entry into waters of the state.
   (e) Provide sediment and erosion control sufficient to prevent or control sediment loss off of the property. This could include the use of straw bales, silt fences, or sediment basins, if needed.

2. Electronic Discharge Monitoring Report (eDMR) Submission System
   (a) Discharge Monitoring Reporting Requirements. The permittee must electronically submit compliance monitoring data via the eDMR system. In regards to Standard Conditions Part I, Section B, #7, the eDMR system is currently the only Department approved reporting method for this permit.
   (b) Programmatic Reporting Requirements. The following reports (if required by this permit) must be electronically submitted as an attachment to the eDMR system until such a time when the current or a new system is available to allow direct input of the data:
      (1) Schedule of Compliance Progress Reports;
      (2) Any additional report required by the permit excluding bypass reporting.
      After such a system has been made available by the Department, required data shall be directly input into the system by the next report due date.
   (c) Other actions. The following shall be submitted electronically after such a system has been made available by the Department:
      (1) General Permit Applications/Notices of Intent to discharge (NOIs);
      (2) Notices of Termination (NOTs);
      (3) No Exposure Certifications (NOEs);
      (4) Low Erosivity Waivers and Other Waivers from Stormwater Controls (LEWs); and
      (5) Bypass reporting.
   (d) Electronic Submissions. To access the eDMR system, use the following link in your web browser: https://edmr.dnr.mo.gov/edmr/E2/Shared/Pages/Main/Login.aspx.

C. SPECIAL CONDITIONS (CONTINUED)

(e) Waivers from Electronic Reporting. The permittee must electronically submit compliance monitoring data and reports unless a waiver is granted by the department in compliance with 40 CFR Part 127. The permittee may obtain an electronic reporting waiver by first submitting an eDMR Waiver Request Form: http://dnr.mo.gov/forms/780-2692-f.pdf. The Department will either approve or deny this electronic reporting waiver request within 120 calendar days. Only permittees with an approved waiver request may submit monitoring data and reports on paper to the Department for the period that the approved electronic reporting waiver is effective.

3. The purpose of the Stormwater Pollution Prevention Plan (SWPPP) and the Best Management Practices (BMPs) listed herein is the prevention of pollution of waters of the state. A deficiency of a BMP means it was not effective preventing pollution [10 CSR 20-2.010(56)] of waters of the state, and corrective actions means the facility took steps to eliminate the deficiency.

4. The facility's SIC code is found in 40 CFR 122.26(b)(14) and/or 10 CSR 20-6.200(2) hence shall implement a SWPPP which must be prepared and implemented upon permit issuance. The SWPPP must be kept on-site and should not be sent to the Department unless specifically requested. The SWPPP must be reviewed and updated every five years or as site conditions change (see Part III: Antidegradation Analysis and SWPPP sections in the fact sheet). The permittee shall select, install, use, operate, and maintain the Best Management Practices prescribed in the SWPPP in accordance with the concepts and methods described in: *Developing Your Stormwater Pollution Prevention Plan, A Guide for Industrial Operators*, (EPA 833-B-09-002) published by the EPA in February 2009 (www.epa.gov/npdes/pubs/industrial_swppp_guide.pdf). The SWPPP must include:
   (a) A listing of specific contaminants and their control measures (or BMPs) and a narrative explaining how BMPs are implemented to control and minimize the amount of contaminants potentially entering stormwater.
   (b) The SWPPP must include a schedule for twice per month site inspections and brief written reports. The inspection report must include precipitation information for the entire period since last inspection, as well as observations and evaluations of BMP effectiveness. Throughout coverage under this permit, the facility must perform ongoing SWPPP review and revision to incorporate any site condition changes.
      i. Operational deficiencies must be corrected within seven (7) calendar days.
      ii. Minor structural deficiencies must be corrected within fourteen (14) calendar days.
      iii. Major structural deficiencies must be reported to the regional office within seven (7) days of discovery. The initial report shall consist of the deficiency noted, the proposed remedies, the interim or temporary remedies (including the general timing of the placement of the interim measures), and an estimate of the timeframe needed to wholly complete the repairs or construction. The permittee will work with the regional office to determine the best course of action, including but not limited to temporary structures to control stormwater runoff. The facility shall correct the major structural deficiency as soon as reasonably achievable.
      iv. All actions taken to correct the deficiencies shall be included with the written report, including photographs.
      v. Inspection reports must be kept on site with the SWPPP and maintained for a period of five (5) years. These must be made available to Department and EPA personnel upon request.
   (c) A provision for designating an individual to be responsible for environmental matters.
   (d) A provision for providing training to all personnel involved in material handling and storage, and housekeeping of maintenance and cleaning areas. Proof of training shall be submitted on request of the Department.

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

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

C. SPECIAL CONDITIONS (CONTINUED)

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

7. The full implementation of this operating permit, which includes implementation of any applicable schedules of compliance, shall constitute compliance with all applicable federal and state statutes and regulations in accordance with §644.051.16, RSMo, and the CWA section 402(k); however, this permit may be reopened and modified, or alternatively revoked and reissued to comply with any applicable effluent standard or limitation issued or approved under 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 contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or controls any pollutant not limited in the permit.

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

9. Changes in Discharges of Toxic Pollutant
   In addition to the reporting requirements under §122.41(1), all existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Director as soon as they know or have reason to believe:
   (a) That an activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following notification levels:
      (1) One hundred micrograms per liter (100 µg/L);
      (2) Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile;
      (3) Five hundred micrograms per liter (500 µg/L) for 2,4-dinitrophenol and for 2-methyl-4, 6-dinitrophenol;
      (4) One milligram per liter (1 mg/L) for antimony;
      (5) Five (5) times the maximum concentration value reported for the pollutant in the permit application in accordance with 40 CFR 122.21(g)(7); or
      (6) The notification level established by the Department in accordance with 40 CFR 122.44(f).
   (b) That any activity has occurred or will occur which would result in any discharge, on a non-routine or infrequent basis, of a toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels":
      (1) Five hundred micrograms per liter (500 µg/l);
      (2) One milligram per liter (1 mg/l) for antimony;
      (3) Ten (10) times the maximum concentration value reported for that pollutant in the permit application in accordance with §122.21(g)(7).
      (4) The level established by the Director in accordance with §122.44(f).

10. Report as no-discharge when a discharge does not occur during the report period. It is a violation of this permit to report no-discharge when a discharge has occurred.

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

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

MISSOURI DEPARTMENT OF NATURAL RESOURCES
FACT SHEET
FOR THE PURPOSE OF RENEWAL
OF
MO-0136221
NATIONAL BEEF LEATHERS, LLC

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

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

Part I. FACILITY INFORMATION

Facility Type:	Industrial
Facility SIC Code(s):	3111
Facility NAICS Code:	316110
Application Date:	03/10/2017
Expiration Date:	6/25/2017
Last Inspection:	04/03/2017 - not in compliance

FACILITY DESCRIPTION:
Hide tannery with stormwater discharges only. National Beef Leather (NBL) is a leather tanning facility with two storm water outfalls. The first receiving stream for this facility is a tributary to the Missouri River. NBL tans and processes cow hides. NBL's headquarters is located in Kansas City, Missouri but the tanning facility is located in St. Joseph, Missouri. On March 9, 2009, NBL purchased the facility and property from Prime Tanning. Prior to NBL owning the company, Prime Tanning purchased sodium dichromate to convert it from the hexavalent chromium to trivalent level chromium needed for tanning. Prime Tanning land applied sludge from its process and wastewater treatment plant. Since NBL purchased the facility, they ceased land applying sludge and began using a commercial product so that it was no longer necessary to convert Chromium VI to Chromium III for the tanning process.

NBL operates a wet, blue side tannery that uses a mineral tanning procedure which incorporates a Chromium III process. Raw hides are treated in liming drums, then tanning drums. NBL manages and treats its process water in an onsite wastewater pretreatment plant. In 1986, their activated sludge pretreatment process was installed, with three clarifiers and an aeration basin, to remove any residual chromium. The wastewater stream discharges to the St. Joseph POTW, and is regulated by a pretreatment contribution permit through the City of St. Joseph Water Pollution Control.

Sludge generated by NBL is created by various processes throughout the tanning process including sludge biosolids, screenings, and fleshings. It is conveyed to and stored in a three-sided, half-wall structure with a concrete base, and is under a roof. This structure stands on the north side of the property. Sludge is mixed with shavings and mulch to dry it before it is hauled to a landfill. Chromium is not included in the sludge stream because the chromium is recovered and reused. Any residual chromium in the sludge that is not recovered goes to a Kansas landfill, and any residual chromium in the water is treated at the wastewater plant. All sludge is tested weekly before shipping.

PERMITTED FEATURES TABLE:

OUTFALL	DRAINAGE AREA	IMPERVIOUS SURFACE AREA	RUNOFF COEFFICIENT "c"	RAINFALL INTENSITY "*i*"	PEAK DISCHARGE	DMR AVERAGE	EFFLUENT TYPE
#001	16.6 acres	11.7 acres	0.8	5.5 inches	3.04 cfs 1.97 MGD	0.272 MGD	industrial stormwater
#002	2.28 acres	1.27 acres	0.7	5.5 inches	0.37 cfs 0.24 MGD	0.039 MGD	industrial stormwater

Discharge values were calculated using the rational equation found at https://www.lmnoeng.com/Hydrology/rational.php; i = 5.5 inches per day as the 10 year 24 hour maximum rainfall value for St. Joseph, Missouri.

FACILITY PERFORMANCE HISTORY & COMMENTS:
The electronic discharge monitoring reports were reviewed for the last five years. Numerous exceedances were noted and this facility is under enforcement. However, the previous permit implemented monthly averages for stormwater discharges. These values are not applicable to stormwater and were therefore removed. Many of the exceedances were applicable to the monthly averages; with this reissued permit, the facility will only need to meet daily maximum values and benchmarks appropriate to technology for stormwater at the site.

Additionally, the receiving waterbody has been modified to show man-made drainages which diverts all stormwater in the industrial area to the Missouri River. A review of the National Hydrography Dataset (NHD) in accordance with 10 CSR 20-7.031(2)(A)3. show none of these conveyances have been identified as 1:100,000 streams therefore fall under rebuttable presumption and the permit writer's discretion. Additionally, because they are man-made conveyances, the permit writer has determined they are not fishable nor swimmable, a central tenant of the Clean Water Act.

In the inspection performed by the Kansas City Regional Office in April of 2017, several areas were of concern to the inspector and the inspector found the facility to not be in compliance with Missouri Clean Water Law. Each area of concern was addressed through analysis of the discharge monitoring data and subsequent permit decisions made in this permit.

The permit writer visited the site on 11/30/2017 and noted similar concerns as found by the inspectors. The permit writer noted that good housekeeping practices could be improved with a subsequent improvement in discharged water quality. The permit effluent limit derivations addresses these findings after reviewing the numerical data associated with the outfalls.

By happenstance, a complaint was lodged by the city on the same day as the permit writer's visit. The city revealed the facility was allegedly discharging water from the northeast portion of the facility's property. The permit writer, while on site, asked the facility where the water in the stormwater ditch was coming from; the facility personnel stated the water was from a broken potable water line in a building and had plans to pump out the stormwater ditch and send the water to the on-site wastewater pretreatment facility. At the northwest corner of the facility the stormwater drainage does technically leave the property; however, the drainage comes back on to the property in a short distance and flows to outfall #001. There was no discharge of any water through outfall #001 on that day. The permit writer feels that an outfall does not need to be established at the northwest corner of the facility because the entirety of the drainage reenters the property and the small area where it is outside of the bounds of the property line is rail line right of way and not waters of the state.

MAJOR SPILLS:
The facility disclosed in the application for permit renewal there was a salt brine spill of approximately 35,000 gallons to waters of the state through the stormwater outfall on 6/6/2016. The facility's samples show for that monitoring period (4/1/2016 to 6/30/2016) elevated levels of several parameters as shown in the table below. Several permit decisions are based on the parameters present in the brine solution to assure that best management practices at the facility are employed to assure another spill of this magnitude does not occur in the future.

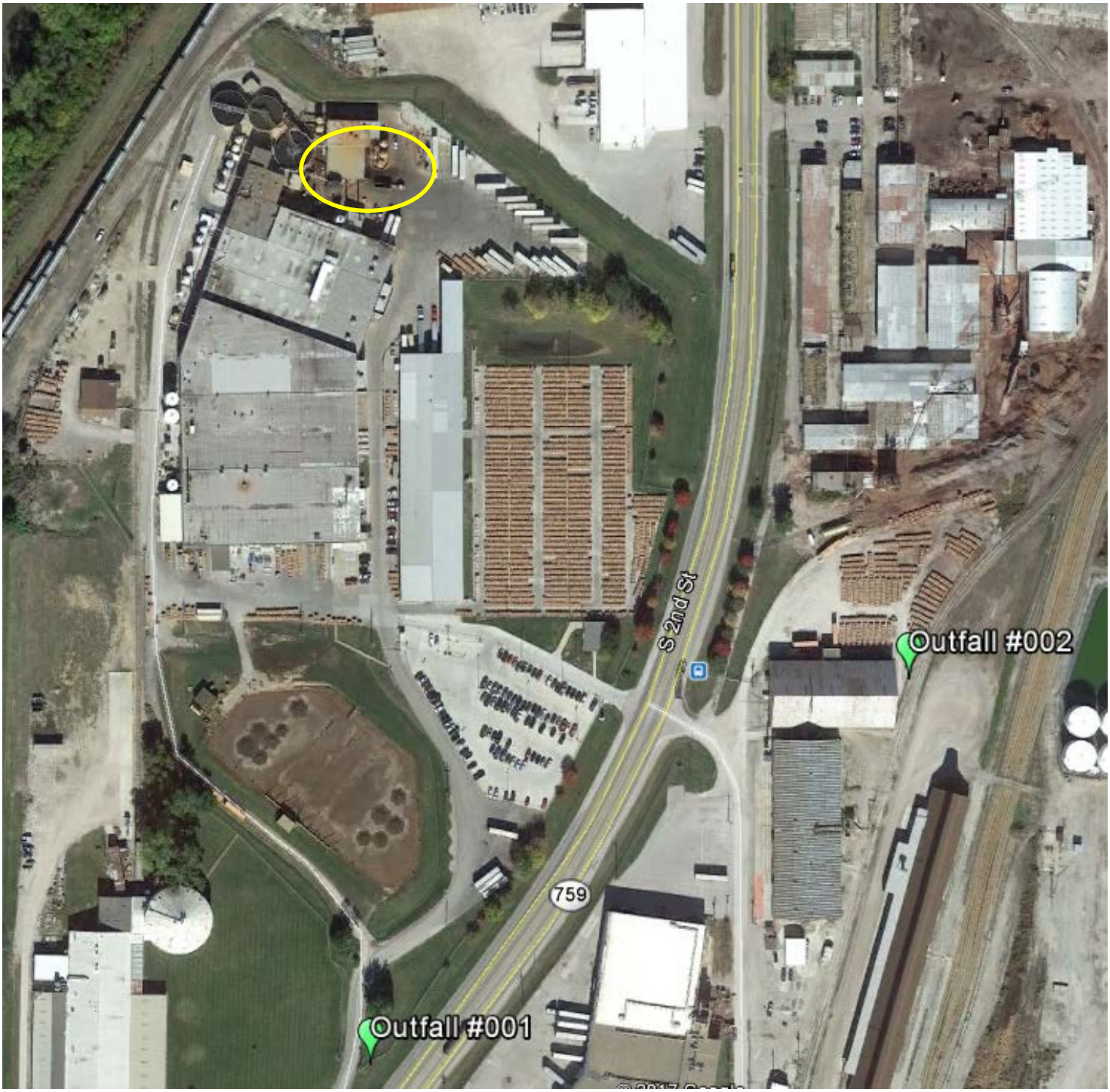
PARAMETER	LIMIT	LIMIT	REPORTED	UNITS
Aluminum, total recoverable	749	Daily Max.	2670	ug/L
Arsenic, total recoverable	33	Daily Max.	10	ug/L
Barium, total recoverable	monitoring	Daily Max.	38.4	ug/L
Chemical Oxygen Demand (COD)	120	Daily Max.	44	mg/L
Chromium, hexavalent (VI) dissolved (as Cr)	15	Daily Max.	86	ug/L
Chromium, trivalent (III) total recoverable	monitoring	Daily Max.	75	ug/L
Cobalt, total recoverable	monitoring	Daily Max.	5	ug/L
Copper, total recoverable	22	Daily Max.	10	ug/L
Cyanide, free (amenable to chlorination)	22	Daily Max.	5	ug/L
Hardness, total (as CaCO3)	monitoring	Daily Max.	76.2	mg/L

PARAMETER	LIMIT	LIMIT	REPORTED	UNITS
Iron, total recoverable	1639	Daily Max.	3080	ug/L
Lead (Pb), total recoverable	151	Daily Max.	6.7	ug/L
Manganese, total recoverable	monitoring	Daily Max.	101	ug/L
Nitrogen, ammonia total (as N)	monitoring	Daily Max.	0.6	mg/L
Nitrogen, total (as N)	monitoring	Daily Max.	5.1	mg/L
Oil and grease (soxhlet extr.) tot.	15	Daily Max.	5	mg/L
Phosphorus, total (as P)	monitoring	Daily Avg.	0.3	mg/L
Precipitation, monthly accumulation	monitoring	Daily Max.	0.75	in/d
Storm water flow	monitoring	Daily Max.	0.24878	Mgal/d
Sulfate	monitoring	Daily Min.	17.1	mg/L
Temperature, water deg. centigrade	monitoring	Daily Max.	18	deg C
Total phenols	164	Daily Max.	50	ug/L
Total Suspended Solids (TSS)	100	Daily Max.	99	mg/L
Zinc (Zn), total recoverable	180	Daily Max.	75	ug/L

MAJOR WATER USER:
Any surface or groundwater user with a water source and the equipment necessary to withdraw or divert 100,000 gallons (or 70 gallons per minute) or more per day combined from all sources from any stream, river, lake, well, spring, or other water source is considered a major water user in Missouri. All major water users are required by law to register water use annually (Missouri Revised

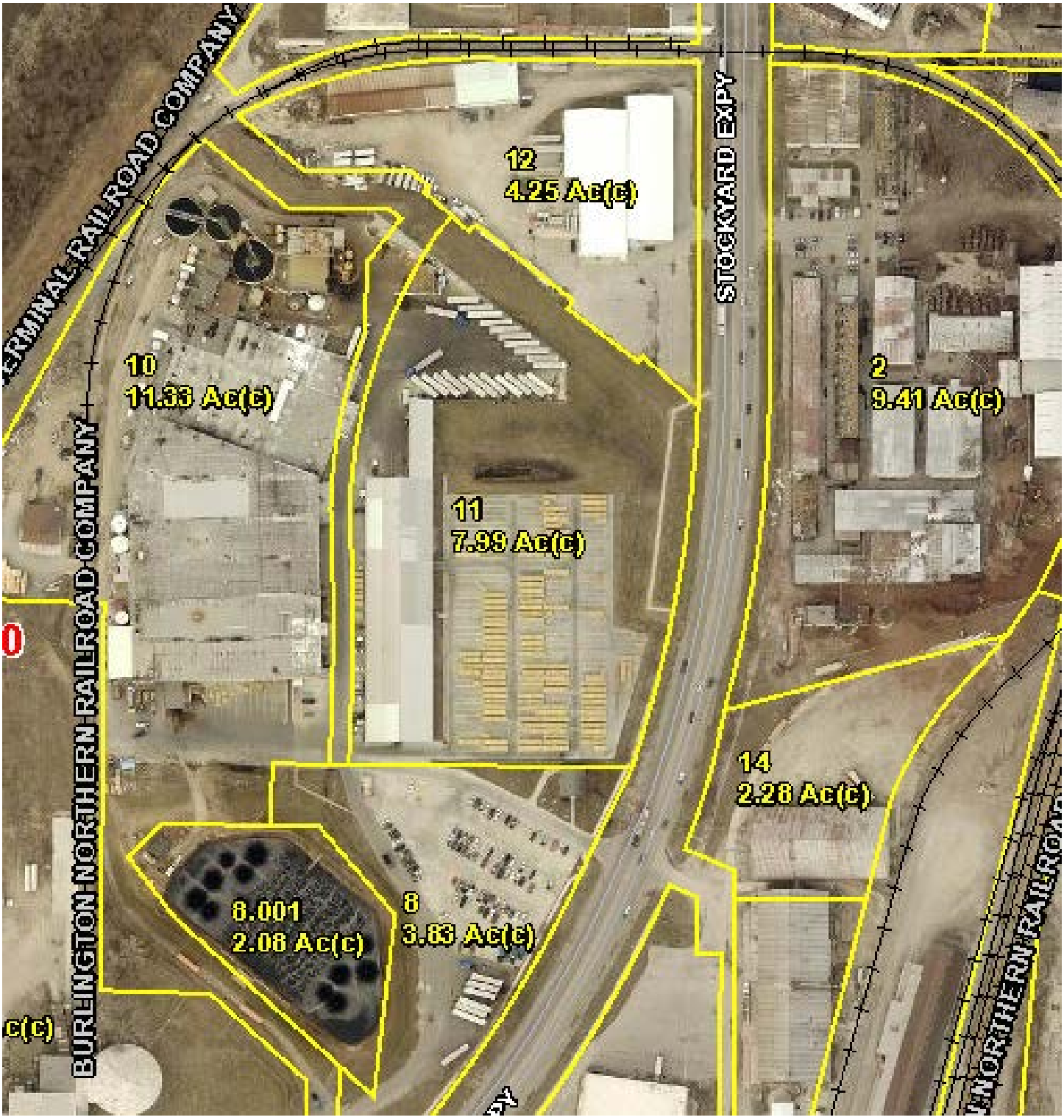
- ✓ Applicable; this permittee has registered 5 wells with the state and they use about 234.2 MGY.
- ✓ This permittee also uses potable water from the City of St. Joseph for industrial processes.

FACILITY MAP:



Sludge pad area encircled in yellow. From the northern portion of the facility near the sludge pad, stormwater flow for outfall #001 generally follows along the property boundary in a counterclockwise direction; before the pretreatment system, the stormwater conveyance goes subsurface and emerges near the large tree at the southeast corner of the pretreatment system; then flows south through outfall #001. The stormwater from the eastern portion of the facility flows clockwise along the property boundary and then out through outfall #001. See next image.

PROPERTY BOUNDARIES AND DRAINAGE AREAS DESCRIPTION:



The main portion of the facility is located in parcels 10 and the west part of parcel 11; the east part of parcel 11 is storage. The facility indicated that 16.6 acres were included in the discharge for outfall #001 (parcels 8, 8.001, 10, and 11). The discrepancy is due to central portions of the facility and floor drains inside the buildings are drained to the on-site wastewater treatment facility; parcel 8.001. The elevated aerated lagoon berms drain outwards to outfall #001. Industrial activity does not generally occur in parcel 8, the employee parking lot. Parcel 14 drains to outfall #002.

Part II. Receiving Stream Information

Receiving Water Body's Water Quality:
The receiving stream, the Missouri River, has concurrent water quality data available. Please visit the USGS webpage https://waterdata.usgs.gov/nwis and data is available for USGS gaging station #06818000.

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

- ✓ Applicable; the Missouri River (WBID # 0226) is listed on the 2016 Missouri 303(d) list for *E. coli* in water.
- ✓ This facility is not considered a source of the above listed pollutant(s) or considered to contribute to the impairment.

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

- ✓ Applicable; the Missouri River is associated with the 2006 EPA approved TMDL for Chlordane and Polychlorinated Biphenyls (PCBs) in Fish Tissue.
- ✓ This facility is not considered to be a source of the above listed pollutant(s) or considered to contribute to the impairment.

Applicable Designations of Waters of the State:

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

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

Receiving Streams Table:

Outfall	Waterbody Name	Class	WBID	Designated Uses*	Distance to Segment	12-digit HUC
#001	Man-Made Conveyance to Missouri River	n/a	n/a	n/a	0.0	10240011-0106 Walnut Creek – Missouri River
	Missouri River	P	0226	DWS, GEN, HHP, IND, IRR, LWW, SCR, WBC-B, WWH (AQL)	3.09 mi	
#002	Man-Made Conveyance to Missouri River	n/a	n/a	n/a	0.0	
	Missouri River	P	0226	DWS, GEN, HHP, IND, IRR, LWW, SCR, WBC-B, WWH (AQL)	0.68 mi	

n/a not applicable
WBID = Waterbody IDentification: Missouri Use Designation Dataset 8-20-13 MUDD V1.0 data can be found as an ArcGIS shapefile on MSDIS at ftp://msdis.missouri.edu/pub/Inland_Water_Resources/MO_2014_WQS_Stream_Classifications_and_Use_shp.zip
* As per 10 CSR 20-7.031 Missouri Water Quality Standards, the Department defines the Clean Water Commission's water quality objectives in terms of "water uses to be maintained and the criteria to protect those uses." The receiving stream and 1st classified receiving stream's beneficial water uses to be maintained are in the receiving stream table in accordance with [10 CSR 20-7.031(1)(C)].
** The ditches and man-made conveyances flow through industrial locations where the drainages are unlikely to support aquatic life (rebuttable presumption); the permit writer has determined the drainages are not fishable/swimmable therefore certain latitudes were allowed in applying permit limitations and benchmarks.

Uses which may be found in the receiving streams table, above:
10 CSR 20-7.031(1)(C)1.:

AQL = Protection of aquatic life (Current narrative use(s) are defined to ensure the protection and propagation of fish shellfish and wildlife, which is further subcategorized as: WWH = Warm Water Habitat; CLH = Cool Water Habitat; CDH = Cold Water Habitat; EAH = Ephemeral Aquatic Habitat; MAH = Modified Aquatic Habitat; LAH = Limited Aquatic Habitat. This permit uses AQL effluent limitations in 10 CSR 20-7.031 Table A for all habitat designations unless otherwise specified.)

10 CSR 20-7.031(1)(C)2.: Recreation in and on the water
WBC = Whole Body Contact recreation where the entire body is capable of being submerged;
WBC-A = Whole body contact recreation supporting swimming uses and has public access;
WBC-B = Whole body contact recreation supporting swimming;
SCR = Secondary Contact Recreation (like fishing, wading, and boating).

10 CSR 20-7.031(1)(C)3. to 7.:
HHP (formerly HHF) = Human Health Protection as it relates to the consumption of fish;
IRR = Irrigation for use on crops utilized for human or livestock consumption;
LWW = Livestock and wildlife watering (Current narrative use is defined as LWP = Livestock and Wildlife Protection);
DWS = Drinking Water Supply;
IND = Industrial water supply

10 CSR 20-7.031(1)(C)8-11.: Wetlands (10 CSR 20-7.031 Table A currently does not have corresponding habitat use criteria for these defined uses)
WSA = Storm- and flood-water storage and attenuation; WHP = Habitat for resident and migratory wildlife species;
WRC = Recreational, cultural, educational, scientific, and natural aesthetic values and uses; WHC = Hydrologic cycle maintenance.
10 CSR 20-7.031(6): GRW = Groundwater

RECEIVING STREAM MONITORING REQUIREMENTS:
No receiving water monitoring requirements are recommended at this time.

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

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

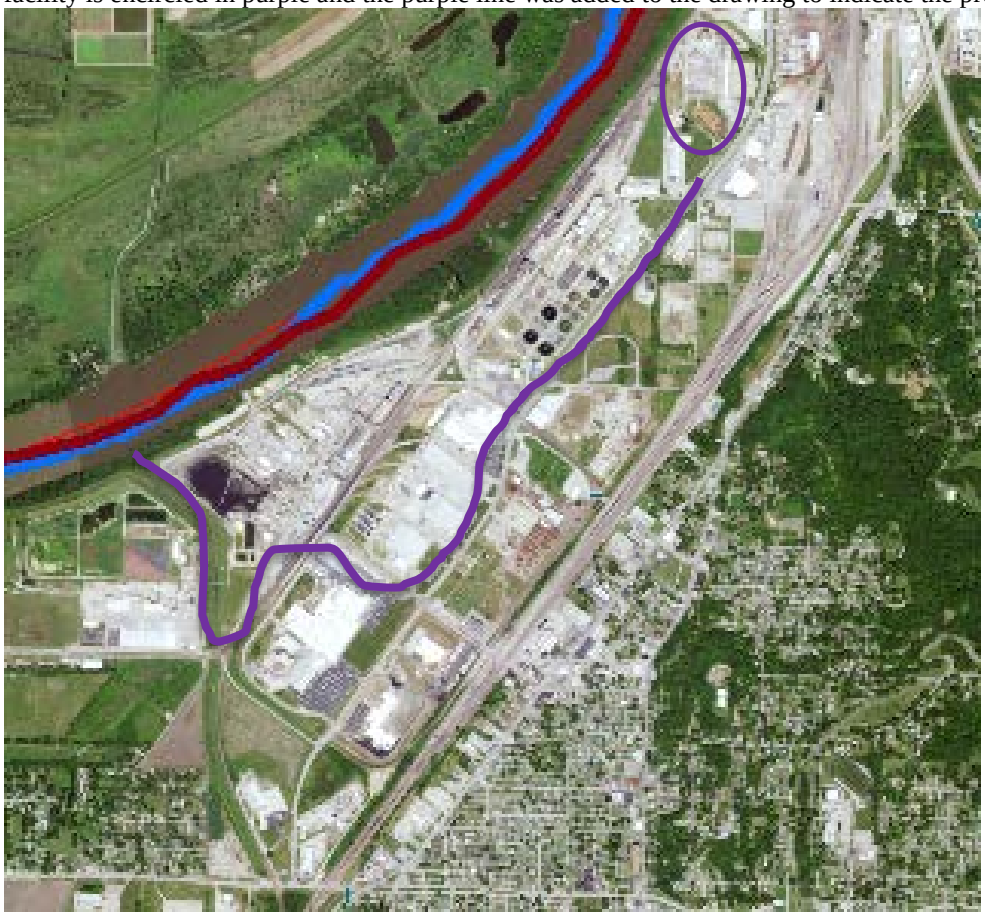
✓ Not applicable; the facility does not discharge to a losing stream as defined by [10 CSR 20-2.010(36)] & [10 CSR 20-7.031(1)(N)], or is an existing facility.

ANTI-BACKSLIDING:
Federal Regulations [CWA §303(d)(4); CWA §402(c); 40 CFR Part 122.44(I)] require a reissued permit to be as stringent as the previous permit with some exceptions. Backsliding (a less stringent permit limitation) is only allowed under certain conditions.

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

- ✓ Information is available which was not available at the time of permit issuance (other than revised regulations, guidance, or test methods) which would have justified the application of a less stringent effluent limitation.
  - 5 years of DMR data were supplied to the permit writer which support conversions of limits on outfall #001 to benchmarks; this facility is eligible for removal of limitations with a replacement benchmark for: chemical oxygen demand, total recoverable aluminum, total recoverable trivalent chromium, dissolved hexavalent chromium, total recoverable copper, total recoverable iron, and total recoverable zinc; these parameters show no reasonable potential to cause or contribute to exceedances of water quality limitations (either numeric or narrative) within the receiving stream but will continue to serve as monitoring parameters to provide evaluations of BMPs.
  - This facility is eligible for removal of limits and all sampling requirements for the following parameters because the facility has shown through sampling that the following pollutants are not present in the discharge in amounts which have any potential to cause or contribute to an exceedance of in-stream standards (narrative or numeric): cyanide amenable to chlorination, total recoverable arsenic, total recoverable lead; metals with benchmark constraints will serve as surrogate parameters.
  - This facility is eligible for removal of all sampling requirements for the following parameters (limits were not implemented in the previous permit) because the facility has shown through sampling that the following pollutants are not present in the discharge in amounts which have any potential to cause or contribute to an exceedance of in-stream standards (narrative or numeric): temperature, total recoverable barium, total recoverable cobalt, total recoverable manganese. Metals with benchmark constraints will serve as sentry parameters.
- ✓ The Department determined technical mistakes or mistaken interpretations of law were made in issuing the permit under section 402(a)(1)(b).
  - The previous permit limits for outfalls #001 and #002 were established in error, based on limits for domestic or process wastewater, however, these are stormwater-only outfalls. This renewal establishes limits and benchmarks appropriate for stormwater discharges. There will be no changes to industrial activities onsite or the composition of the stormwater discharge as a result of this renewal. The benchmark concentrations and required corrective actions within this permit are protective of the receiving stream's uses to be maintained.
  - The permit writer has determined and provided sound rationale to show the permittee discharges stormwater through man-made conveyances directly to the Missouri River. The receiving waterbody has been modified from the last permit

where general criteria were afforded protections within the tributaries, to now show man-made drainages which diverts all stormwater in the industrial area to the Missouri River. A review of the National Hydrography Dataset (NHD) in accordance with 10 CSR 20-7.031(2)(A)3. show none of these conveyances have been identified as 1:100,000 streams therefore fall under rebuttable presumption and the permit writer's discretion. Additionally, because they are man-made conveyances, the permit writer has determined they are neither fishable nor swimmable, a central tenant of the Clean Water Act. The image below shows no blue flow-lines per the NHD prior to connecting to the Missouri River. The facility is encircled in purple and the purple line was added to the drawing to indicate the projected flow path.



- Monthly averages were not implemented for outfalls #001 and #002 in this permit as the discharge consists of only stormwater which is not continuous pursuant to 40 CFR 122.45(d). Further, average monthly limitations are impracticable measures of non-continuous stormwater discharges because they vary widely in frequency, magnitude, and duration. This permit applies only acute short-term or daily maximum measures which represent stormwater discharges which are acute and sporadic in nature. Discharges of industrial stormwater rarely persist for long durations, making them impracticable to assess using measures with long term exposures or averaging periods. Last, the instream water quality target remains unchanged and the conditions of this permit are protective of both narrative and numeric water quality criteria.
- The previous permit contained a specific set of prohibitions related to general criteria found in 10 CSR 20-7.031(4); however, there was no determination as to whether the discharges have reasonable potential to cause or contribute to excursion of those general water quality standards in the previous permit. Federal regulations 40 CFR 122.44(d)(1)(iii) requires that in instances were reasonable potential (RP) to cause or contribute to an exceedance of a water quality standard exists, a numeric limitation must be included in the permit. Rather than conducting the appropriate RP determination and establishing numeric effluent limitations for specific pollutant parameters, the previous permit simply placed the prohibitions in the permit. These conditions were removed from the permit. Appropriate reasonable potential determinations were conducted for each general criterion listed in 10 CSR 20-7.031(4) and effluent limitations were placed in the permit for those general criteria where it was determined the discharge had reasonable potential to cause or contribute to excursions of the general criteria. Specific effluent limitations were not included for those general criteria where it was determined that the discharges will not cause or contribute to excursions of general criteria. Removal of the prohibitions does not reduce the protections of the permit or allow for impairment of the receiving stream. The permit maintains sufficient effluent limitations, monitoring requirements and best management practices to protect water quality.
- The previous permit required whole effluent toxicity testing on outfall #001. However, this is only stormwater and past discharges have shown no toxicity. Requirement removed.

ANTIDEGRADATION REVIEW:
For process water discharge with new, altered, or expanding discharges, the Department is to document, by means of antidegradation review, if the use of a water body's available assimilative capacity is justified. In accordance with Missouri's water quality regulations for antidegradation [10 CSR 20-7.031(3)], degradation may be justified by documenting the socio-economic importance of a discharge after determining the necessity of the discharge. Facilities must submit the antidegradation review request to the Department prior to establishing, altering, or expanding discharges. See http://dnr.mo.gov/env/wpp/permits/antideg-implementation.htm

✓ Not applicable; the facility has not submitted information proposing expanded or altered process water discharge; no further degradation proposed therefore no further review necessary.

For stormwater discharges with new, altered, or expanding discharges, the stormwater BMP chosen for the facility, through the antidegradation analysis performed by the facility, must be implemented and maintained at the facility. Failure to implement and maintain the chosen BMP alternative is a permit violation; see SWPPP.

✓ Applicable; the facility must review and maintain stormwater BMPs as appropriate.

BENCHMARKS:
When a permitted feature or outfall consists of only stormwater, a benchmark may be implemented at the discretion of the permit writer. Benchmarks require the facility to monitor, and if necessary, replace and update stormwater control measures. Benchmark concentrations are not effluent limitations. A benchmark exceedance, therefore, is not a permit violation; however, failure to take corrective action is a violation of the permit. Benchmark monitoring data is used to determine the overall effectiveness of control measures and to assist the permittee in knowing when additional corrective actions may be necessary to comply with the limitations of the permit.

Because of the fleeting nature of stormwater discharges, the Department, under the direction of EPA guidance, has determined monthly averages are capricious measures of stormwater discharges. The *Technical Support Document for Water Quality Based Toxics Control* (EPA/505/2-90-001; 1991) Section 3.1 indicates most procedures within the document apply only to water quality based approaches, not end-of-pipe technology-based controls. Hence, stormwater only outfalls will generally only contain a maximum daily limit (MDL), benchmark, or monitoring requirement determined by the site specific conditions including the receiving water's current quality. While inspections of the stormwater BMPs occur monthly, facilities with no compliance issues are usually expected to sample stormwater quarterly.

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

✓ Applicable; this facility has stormwater-only outfalls with benchmark constraints. The benchmarks listed are consistently achieved in stormwater discharges by a variety of other industries with SWPPPs.

BIOSOLIDS & SEWAGE SLUDGE:
Biosolids are solid materials resulting from domestic wastewater treatment meeting federal and state criteria for beneficial use (i.e. fertilizer). Sewage sludge is solid, semi-solid, or liquid residue generated during the treatment of domestic sewage in a treatment works; including but not limited to, domestic septage; scum or solids removed in primary, secondary, or advanced wastewater treatment process; and material derived from sewage sludge. Sewage sludge does not include ash generated during the firing of sewage sludge in a sewage sludge incinerator or grit and screening generated during preliminary treatment of domestic sewage in a treatment works. Additional information: http://extension.missouri.edu/main/DisplayCategory.aspx?C=74 (WQ422 through WQ449).

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

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

✓ Applicable; the permittee/facility is currently under enforcement action due to exceedances of permitted limitations. The facility is cooperating with the department in correcting the areas which are causing the exceedances of permit limitations.

EFFLUENT LIMITATION GUIDELINE:
Effluent Limitation Guidelines, or ELGs, are found at 40 CFR 400-499. These are limitations established by the EPA based on the SIC code and the type of work a facility is conducting. Most ELGs are for process wastewater and some address stormwater. All are technology based limitations which must be met by the applicable facility at all times.

✓ The facility does not have an associated ELG. The categorical standards for Leather Tanning and Finishing in 40 CFR 425 applies to production processes. Wastewater from the production processes are sent to St. Joseph's WWTF (MO-0023043). Some stormwater from the facility discharges into St. Joseph's combined sewer system. This permit only covers stormwater discharges.

GROUNDWATER MONITORING:
Groundwater is a water of the state according to 10 CSR 20-7.015(1)11, and is subject to regulations at 10 CSR 20-7.015(7) and 10 CSR 20-7.031(6) and must be protected accordingly.

✓ This facility is not required to monitor groundwater for the water protection program.

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

✓ Not applicable; sludge is not land applied at this facility.

REASONABLE POTENTIAL ANALYSIS (RPA):
Federal regulation [40 CFR Part 122.44(d)(1)(i)] requires effluent limitations for all pollutants that are (or may be) discharged at a level causing or have the reasonable potential to cause (or contribute to) an in-stream excursion above narrative or numeric water quality standards. If the permit writer determines any given pollutant has the reasonable potential to cause or contribute to an in-stream excursion above the WQS, the permit must contain effluent limits for that pollutant [40 CFR Part 122.44(d)(1)(iii)].

✓ Not applicable; a mathematical RPA was not conducted for this facility. This permit establishes permit limits and benchmarks for stormwater. The Department has determined stormwater is not a continuous discharge and is therefore not necessarily dependent on mathematical RPAs. However, the permit writer completed an RPD, a reasonable potential determination, using best professional judgment for all of the appropriate parameters in this permit. An RPD consists of reviewing application data and/or discharge monitoring data for the last five years and comparing those data to narrative or numeric water quality criteria.

✓ Permit writers use the Department's permit writer's manual (http://dnr.mo.gov/env/wpp/permits/manual/permit-manual.htm), the EPA's permit writer's manual (https://www.epa.gov/npdes/npdes-permit-writers-manual), program policies, and best professional judgment. For each parameter in each permit, the permit writer carefully considers all applicable information regarding: technology based effluent limitations, effluent limitation guidelines, water quality standards, stream flows and uses, and all applicable site specific information and data gathered by the permittee through discharge monitoring reports and renewal (or new) application sampling. Best professional judgment is based on the experience of the permit writer, cohorts in the Department and resources at the EPA, research, and maintaining continuity of permits if necessary. For stormwater permits, the permit writer is required per 10 CSR 6.200(6)(B)2 to consider: A. application and other information supplied by the permittee; B. effluent guidelines; C. best professional judgment of the permit writer; D. water quality; and E. BMPs. Part V provides specific decisions related to this permit.

The following table shows recommended effluent limitations with Missouri River mixing at the 7Q10 of 17,205 cfs. The permittee has no RP per RPD for the following parameters. TR = total recoverable

Parameter	units	Daily Maximum	Monthly Average
Aluminum, TR	µg/L	8250.00	4112.27
Antimony, TR	µg/L	24058.79	11992.28
Arsenic, TR	µg/L	91624.90	45671.12
Beryllium, TR	µg/L	22906.22	11417.78
Cadmium, TR	µg/L	90.69	45.21
Chromium III, TR	µg/L	29445.69	14677.42
Chromium VI, Dissolved	µg/L	165.00	82.25
Copper, TR	µg/L	242.53	120.89
Iron, TR	µg/L	4581244.89	2283555.80
Lead, TR	µg/L	1658.98	826.93
Mercury, TR	µg/L	31.06	15.48
Nickel, TR	µg/L	7767.07	3871.56
Selenium, TR	µg/L	22906.22	11417.78
Silver, TR	µg/L	95.62	47.66
Thallium, TR	µg/L	35248.92	17570.09
Zinc, TR	µg/L	1987.55	990.71
Cyanide	µg/L	242.00	120.63

SCHEDULE OF COMPLIANCE (SOC):
A schedule of remedial measures included in a permit, including an enforceable sequence of interim requirements (actions, effluent limits, operations, or milestone events) leading to compliance with the Missouri Clean Water Law, its implementing regulations, and/or the terms and conditions of an operating permit. SOCs are allowed under 40 CFR 122.47 providing certain conditions are met.
✓ Not applicable; this permit does not contain a SOC.

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

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

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

Sufficient rainfall to cause a discharge for one hour or more from a facility would not necessarily cause significant flow in a receiving stream. Acute WQSs are based on a one hour of exposure, and must be protected at all times in unclassified streams, and within mixing zones of class P streams [10 CSR 20-7.031(4) and (5)(4)4.B.]. Therefore, industrial stormwater facilities with toxic contaminants do have the potential to cause a violation of acute WQSs if those toxic contaminants occur in sufficient amounts.

It is due to the items stated above staff are unable to perform statistical Reasonable Potential Analysis (RPA). However, staff will use their best professional judgment in determining if a facility has a potential to violate Missouri's Water Quality Standards.

STORMWATER POLLUTION PREVENTION PLAN (SWPPP):
In accordance with 40 CFR 122.44(k), Best Management Practices (BMPs) must be used to control or abate the discharge of pollutants when: 1) Authorized under section 304(e) of the Clean Water Act (CWA) for the control of toxic pollutants and hazardous substances from ancillary industrial activities; 2) Authorized under section 402(p) of the CWA for the control of stormwater discharges; 3) Numeric effluent limitations are infeasible; or 4) the practices are reasonably necessary to achieve effluent limitations and standards or to carry out the purposes and intent of the CWA. In accordance with the EPA's *Developing Your Stormwater Pollution Prevention Plan, A Guide for Industrial Operators*, (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 waters of the state from a permitted facility. BMPs may take the form of a process, activity, or physical structure. Additionally in accordance with the Stormwater Management, a SWPPP is a series of steps and activities to 1) identify sources of pollution or contamination, and 2) select and carry out actions which prevent or control the pollution of storm water discharges.

A SWPPP must be prepared by the permittee if the SIC code is found in 40 CFR 122.26(b)(14) and/or 10 CSR 20-6.200(2). A SWPPP may be required of other facilities where stormwater has been identified as necessitating better management. The purpose of a SWPPP is to comply with all applicable stormwater regulations by creating an adaptive management plan to control and mitigate stream pollution from stormwater runoff. Developing a SWPPP provides opportunities to employ appropriate BMPs to minimize the risk of pollutants being discharged during storm events. The following paragraph outlines the general steps the permittee should take to determine which BMPs will work to achieve the benchmark values or limits in the permit. This section is not intended to be all encompassing or restrict the use of any physical BMP or operational and maintenance procedure assisting in pollution control. Additional steps or revisions to the SWPPP may be required to meet the requirements of the permit.

Areas which should be included in the SWPPP are identified in 40 CFR 122.26(b)(14). Once the potential sources of stormwater pollution have been identified, a plan should be formulated to best control the amount of pollutant being released and discharged by each activity or source. This should include, but is not limited to, minimizing exposure to stormwater, good housekeeping measures, proper facility and equipment maintenance, spill prevention and response, vehicle traffic control, and proper materials handling. Once a plan has been developed the facility will employ the control measures determined to be adequate to achieve the benchmark values discussed above. The facility will conduct monitoring and inspections of the BMPs to ensure they are working properly and re-

evaluate any BMP not achieving compliance with permitting requirements. For example, if sample results from an outfall show values of TSS above the benchmark value, the BMP being employed is deficient in controlling stormwater pollution. Corrective action should be taken to repair, improve, or replace the failing BMP. This internal evaluation is required at least once per month but should be continued more frequently if BMPs continue to fail. If failures do occur, continue this trial and error process until appropriate BMPs have been established.

For new, altered, or expanded stormwater discharges, the SWPPP shall identify reasonable and effective BMPs while accounting for environmental impacts of varying control methods. The antidegradation analysis must document why no discharge or no exposure options are not feasible. The selection and documentation of appropriate control measures shall serve as an alternative analysis of technology and fulfill the requirements of antidegradation [10 CSR 20-7.031(3)]. For further guidance, consult the antidegradation implementation procedure (http://dnr.mo.gov/env/wpp/docs/AIP050212.pdf).

Alternative Analysis (AA) evaluation of the BMPs is a structured evaluation of BMPs that are reasonable and cost effective. The AA evaluation should include practices that are designed to be: 1) non-degrading; 2) less degrading; or 3) degrading water quality. The glossary of AIP defines these three terms. The chosen BMP will be the most reasonable and effective management strategy while ensuring the highest statutory and regulatory requirements are achieved and the highest quality water attainable for the facility is discharged. The AA evaluation must demonstrate why "no discharge" or "no exposure" is not a feasible alternative at the facility. This structured analysis of BMPs serves as the antidegradation review, fulfilling the requirements of 10 CSR 20-7.031(3) Water Quality Standards and *Antidegradation Implementation Procedure* (AIP), Section II.B.

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

- ✓ Applicable; a SWPPP shall be developed and implemented for this facility. The EPA has gathered information which the permit writer has determined applicable to this facility. Contained in special condition #1, the permit writer has included minimum controls as are appropriate for any tannery facility. These minimum controls were based on the research completed by the EPA (publication: MSGP 2015 Part 8 Subpart Z). The EPA InfoSheet is found at https://www3.epa.gov/npdes/pubs/sector_z_leather.pdf
- ✓ The facility should follow, at a minimum, the good housekeeping procedures as follows:
  - Storage Areas for Raw, Semiprocessed, or Finished Tannery Byproducts: Minimize contamination of stormwater runoff from pallets and bales of raw, semiprocessed, or finished tannery by-products (e.g., splits, trimmings, shavings). Consider indoor storage or protection with polyethylene wrapping, tarpaulins, roofed storage, etc. Consider placing materials on an impermeable surface and enclosing or putting berms (or equivalent measures) around the area to prevent stormwater run-on and runoff.
  - Receiving, Unloading, and Storage Areas: Minimize contamination of stormwater runoff from receiving, unloading, and storage areas. If these areas are exposed, consider the following (or their equivalents): covering all hides and chemical supplies, diverting drainage to the process sewer, or grade, berm, or curb the area to prevent stormwater runoff.
  - Contaminated Equipment: Minimize contact of stormwater with contaminated equipment. Consider the following (or their equivalents): covering equipment, diverting drainage to the process sewer, and cleaning equipment thoroughly prior to storage or prior to storm events causing contamination to be washed from the equipment. For example; hose off front-loader tires over the drain which goes to the on-site WWTP prior to any storm events.
  - Waste Management: Minimize contamination of stormwater runoff from waste storage areas. Consider the following (or their equivalents): covering dumpsters, moving waste management activities indoors, covering waste piles with temporary covering material such as tarpaulins or polyethylene, and minimizing stormwater runoff by enclosing the area or building berms around the area. For example; prior to storm events, minimize trackout runoff by shoveling trackout solids back into the sludge pad bay.

TECHNOLOGY-BASED EFFLUENT LIMITATIONS (TBEL):

One of the major strategies of the Clean Water Act (CWA) in making "reasonable further progress toward the national goal of eliminating the discharge of all pollutants" is to require effluent limitations based on the capabilities of the technologies available to control those discharges. Technology-based effluent limitations (TBELs) aim to prevent pollution by requiring a minimum level of effluent quality attainable using demonstrated technologies for reducing discharges of pollutants or pollution into the waters of the United States. TBELs are developed independently of the potential impact of a discharge on the receiving water, which is addressed through water quality standards and water quality-based effluent limitations (WQBELs). The NPDES regulations at Title 40 of the Code of Federal Regulations (CFR) 125.3(a) require NPDES permit writers to develop technology-based treatment requirements,

consistent with CWA § 301(b) and § 402(a)(1), represent the minimum level of control that must be imposed in a permit. The regulation also indicates that permit writers must include in permits additional or more stringent effluent limitations and conditions, including those necessary to protect water quality. Regardless of the technology chosen to be the basis for limitations, the facility is not required to install the technology, only to meet the established TBEL.

Case-by-case TBELs are developed pursuant to CWA section 402(a)(1), which authorizes the administrator to issue a permit meeting either, 1) all applicable requirements developed under the authority of other sections of the CWA (e.g., technology-based treatment standards, water quality standards) or, 2) before taking the necessary implementing actions related to those requirements, "such conditions as the administrator determines are necessary to carry out the provisions of this Act." The regulation at §125.3(c)(2) specifically cite this section of the CWA, stating technology-based treatment requirements may be imposed in a permit "on a case-by-case basis under section 402(a)(1) of the Act, to the extent that EPA-promulgated effluent limitations are inapplicable." Further, §125.3(c)(3) indicates "where promulgated effluent limitations guidelines only apply to certain aspects of the discharger's operation, or to certain pollutants, other aspects or activities are subject to regulation on a case-by-case basis to carry out the provisions of the act." When establishing case-by-case effluent limitations using best professional judgment, the permit writer should cite in the fact sheet or statement of basis both the approach used to develop the limitations, discussed below, and how the limitations carry out the intent and requirements of the CWA and the NPDES regulations.

When developing TBELs for industrial facilities, the permit writer must consider all applicable technology standards and requirements for all pollutants discharged above baseline level. Without applicable effluent guidelines for the discharge or pollutant, permit writers must identify any needed TBELs on a case-by-case basis, in accordance with the statutory factors specified in CWA sections 301(b)(2) and 304(b). The site-specific TBELs reflect the BPJ of the permit writer, taking into account the same statutory factors EPA would use in promulgating a national effluent guideline regulation, but they are applied to the circumstances relating to the applicant. The permit writer also should identify whether state laws or regulations govern TBELs and might require more stringent performance standards than those required by federal regulations. In some cases, a single permit could have TBELs based on effluent guidelines, best professional judgment, state law, and WQBELs based on water quality standards.

Best Practicable Control Technology Currently Available (BPT) is the first level of technology-based effluent controls for direct dischargers and it applies to all types of pollutants (conventional, nonconventional, and toxic). The Federal Water Pollution Control Act (FWPCA) amendments of 1972 require when EPA establishes BPT standards, it must consider the industry-wide cost of implementing the technology in relation to the pollutant-reduction benefits. EPA also must consider the age of the equipment and facilities, the processes employed, process changes, engineering aspects of the control technologies, non-water quality environmental impacts (including energy requirements), and such other factors as the EPA Administrator deems appropriate [CWA §304(b)(1)(B)]. Traditionally, EPA establishes BPT effluent limitations on the basis of the average of the best performance of well-operated facilities in each industrial category or subcategory. Where existing performance is uniformly inadequate, BPT may reflect higher levels of control than currently in place in an industrial category if the agency determines the technology can be practically applied. See CWA sections 301(b)(1)(A) and 304(b)(1)(B). Because the EPA has not promulgated TBELs for the pollutants identified as POCs, the permit writer follows the same format to establish site-specific TBELs. Although the numerical effluent limitations and standards are based on specific processes or treatment technologies to control pollutant discharges, EPA does not require dischargers to use these technologies. Individual facilities may meet the numerical requirements using whatever types of treatment technologies, process changes, and waste management practices they choose.

For each parameter, group of parameters, or outfall treatment process, the facility will summarize the relevant factors below in facility-specific (or waste-stream specific) case-by-case TBEL development. The permittee will supply the required information to the Department so a technology based effluent limitation can be applied in the permit if applicable.

- ✓ Not applicable, this facility does not discharge process wastewater therefore the BPJ process for numeric TBELs were not completed.

VARIANCE:

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

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

WASTELOAD ALLOCATIONS (WLA) FOR LIMITS:

As per [10 CSR 20-2.010(78)], the WLA is the amount of pollutant each discharger is allowed to discharge into the receiving stream without endangering water quality. Two general types of effluent limitations, technology-based effluent limits (TBELs) and water quality based effluent limits (WQBELs) are reviewed. If one limit does not provide adequate protection for the receiving waters, then the other must be used.

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

$$C = \frac{(Cs \times Qs) + (Ce \times Qe)}{(Qe + Qs)}$$ (EPA/505/2-90-001, Section 4.5.5)

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

- Acute wasteload allocations designated as daily maximum limits (MDL) were determined using applicable water quality criteria (CMC: criteria maximum concentration) and stream volume of flow at the edge of the zone of initial dilution (ZID).
- Chronic wasteload allocations designated as monthly average limits (AML) were determined using applicable chronic water quality criteria (CCC: criteria continuous concentration) and stream volume of flow at the edge of the mixing zone (MZ).
- Water quality based MDL and AML effluent limitations were calculated using methods and procedures outlined in USEPA's *Technical Support Document For Water Quality-based Toxics Control* or TSD EPA/505/2-90-001; 3/1991.
- Number of Samples "n": In accordance with the TSD for water quality-based permitting, effluent quality is determined by the underlying distribution of daily values, which is determined by the Long Term Average (LTA) associated with a particular Wasteload Allocation (WLA) and by the Coefficient of Variation (CV) of the effluent concentrations. Increasing or decreasing the monitoring frequency does not affect this underlying distribution or treatment performance which should be, at a minimum, targeted to comply with the values dictated by the WLA. Therefore, it is recommended the actual planned frequency of monitoring normally be used to determine the value of "n" for calculating the AML. However, in situations where monitoring frequency is once per month or less, a higher value for "n" must be assumed for AML derivation purposes. Thus, the statistical procedure being employed using an assumed number of samples is "n = 4" at a minimum. For total ammonia as nitrogen, "n = 30" is used.

WLA MODELING:
Permittees may submit site specific studies to better determine the site specific wasteload allocations applied in permits.
✓ Not applicable; a WLA study was either not submitted or determined not applicable by Department staff.

WATER QUALITY STANDARDS:
Per 10 CSR 20-7.031(4), general criteria shall be applicable to all waters of the state at all times including mixing zones. Additionally, 40 CFR 122.44(d)(1) directs the Department to establish in each NPDES permit to include conditions to achieve water quality established under Section 303 of the Clean Water Act, including state narrative criteria for water quality.

WHOLE EFFLUENT TOXICITY (WET) TEST:
A WET test is a quantifiable method to determine discharges from the facility cause toxicity to aquatic life by itself, in combination with, or through synergistic responses, when mixed with receiving stream water.
✓ Not applicable; at this time, the permittee is not required to conduct WET testing for this facility. The previous permit required testing of the stormwater. However, no toxicity was observed. Regardless, stormwater is highly variable and toxicity shown in a stormwater sample may not be representative of actual toxicity in the receiving stream. The facility discharges to dry drainage areas unless a stormwater event is occurring. Additionally, if any toxicity is present in the sample, the toxicity is not likely to be reproducible because stormwater discharges are highly variable. The facility has numerous limitations for the stormwater that adequately control receiving stream toxicity from this facility.

Part IV. Effluent Limits Determination

Effluent limitations derived and established in the below effluent limitations table are based on current operations of the facility. Effluent means both process water and stormwater. Any flow through the outfall is considered a discharge and must be sampled and reported as provided below. Future permit action due to facility modification may contain new operating permit terms and conditions that supersede the terms and conditions, including effluent limitations, of this operating permit.

General Criteria Considerations:

In accordance with 40 CFR 122.44(d)(1), effluent limitations shall be placed into permits for pollutants which have been determined to cause, have the reasonable potential to cause, or to contribute to an excursion above any State water quality standard, including State narrative criteria for water quality. The rule further states pollutants which have been determined to cause, have the reasonable potential to cause, or contribute to an excursion above a narrative criterion within an applicable State water quality standard, the permit shall contain a numeric effluent limitation to protect that narrative criterion. The previous permit included the narrative criteria as specific prohibitions placed upon the discharge. These prohibitions were included in the permit absent any discussion of the discharge's reasonable potential to cause or contribute to an excursion of the criterion. In order to comply with this regulation, the permit writer has completed a reasonable potential determination on whether the discharge has reasonable potential to cause, or contribute to an excursion of the general criteria listed in 10 CSR 20-7.031(4). These specific requirements are listed below followed by derivation and discussion (the lettering matches that of the rule itself, under 10 CSR 20-7.031(4)). In instances where reasonable potential exists, the permit includes numeric limitations to address the reasonable potential. In instances where reasonable potential does not exist the permit includes monitoring of the discharges potential to impact the receiving stream's narrative criteria. Finally, all of the previous permit narrative criteria prohibitions have been removed from the permit given they are addressed by numeric limits where reasonable potential exists. It should also be noted that Section 644.076.1, RSMo as well as Section D – Administrative Requirements of Standard Conditions Part I of this permit state that it shall be unlawful for any person to cause or permit any discharge of water contaminants from any water contaminant or point source located in Missouri that is in violation of sections 644.006 to 644.141 of the Missouri Clean Water Law or any standard, rule, or regulation promulgated by the commission.

(A) Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses.
- For both outfalls, there is no RP for putrescent bottom deposits preventing full maintenance of beneficial uses because nothing disclosed by the permittee at renewal for these outfalls indicates putrescent wastewater would be discharged from the facility.
- For both outfalls, there is RP for unsightly or harmful bottom deposits preventing full maintenance of beneficial uses therefore both outfalls have TSS limitations; the TSS limitations are imposed in this permit to provide protection for general criteria.

(B) Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses.
- For outfall #001, there is RP for oil in sufficient amounts to be unsightly preventing full maintenance of beneficial uses because sampling data disclosed by the permittee at renewal or during prior sampling for DMR requirements for this outfall indicates oil may be present in sufficient amounts to impair beneficial uses.
- For outfall #002, there is no RP for oil in sufficient amounts to be unsightly preventing full maintenance of beneficial uses because sampling data disclosed by the permittee at renewal or during prior sampling for DMR requirements for this outfall indicates oil not will be present in sufficient amounts to impair beneficial uses.
- For both outfalls, there is no RP for scum and floating debris in sufficient amounts to be unsightly preventing full maintenance of beneficial uses because nothing disclosed by the permittee at renewal for these outfalls indicates scum and floating debris will be present in sufficient amounts to impair beneficial uses

(C) Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses.
- For outfall #001, there is RP for unsightly turbidity in sufficient amounts preventing full maintenance of beneficial uses because DMR data disclosed by the permittee at renewal for these outfalls indicates unsightly turbidity will be present in sufficient amounts to impair beneficial uses; there is no RP for color however.
- For outfall #002, there is no RP for unsightly color or turbidity in sufficient amounts preventing full maintenance of beneficial uses because nothing disclosed by the permittee at renewal for these outfalls indicates unsightly color or turbidity will be present in sufficient amounts to impair beneficial uses.
- For both outfalls, there is no RP for offensive odor in sufficient amounts preventing full maintenance of beneficial uses because nothing disclosed by the permittee at renewal for these outfalls indicates offensive odor will be present in sufficient amounts to impair beneficial uses.

(D) Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life.

- The permit writer considered specific toxic pollutants when writing this permit. Numeric effluent limitations are included for those pollutants that could be discharged in toxic amounts. These effluent limitations are protective of human health, animals, and aquatic life.

(E) There shall be no significant human health hazard from incidental contact with the water.
- It is the permit writer's opinion that this criterion is the same as (D).

(F) There shall be no acute toxicity to livestock or wildlife watering.
- It is the permit writer's opinion that this criterion is the same as (D).

(G) Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community.
- For all outfalls, there is no RP for physical changes that would impair the natural biological community because nothing disclosed by the permittee at renewal for these outfalls indicates physical changes that would impair the natural biological community.
- It has previously been established that any chemical changes that would impair the natural biological community are covered by the specific numeric effluent limitations established in the permit.
- For both outfalls, there is no RP for hydrologic changes that would impair the natural biological community because nothing disclosed by the permittee at renewal for these outfalls indicates hydrologic changes that would impair the natural biological community.

(H) Waters shall be free from used tires, car bodies, appliances, demolition debris, used vehicles or equipment and solid waste as defined in Missouri's Solid Waste Law, section 260.200, RSMo, except as the use of such materials is specifically permitted pursuant to section 260.200-260.247.
- There are no solid waste disposal activities or any operation that has reasonable potential to cause or contribute to the materials listed above being discharged through any outfall.

OUTFALL #001 – STORMWATER ONLY

EFFLUENT LIMITATIONS TABLE:

PARAMETERS	UNIT	DAILY MAXIMUM LIMIT	BENCH-MARK	PREVIOUS PERMIT LIMITS	MINIMUM SAMPLING FREQUENCY	MINIMUM REPORTING FREQUENCY	SAMPLE TYPE
PHYSICAL							
FLOW	MGD	*	-	SAME	ONCE/QUARTER	ONCE/QUARTER	24 HR. ESTIMATE
PRECIPITATION	inches	*	-	SAME	ONCE/QUARTER	ONCE/QUARTER	24 HR. TOT
CONVENTIONAL							
COD	mg/L	**	155	120, 90	ONCE/QUARTER	ONCE/QUARTER	GRAB
OIL & GREASE	mg/L	15	-	15, 10	ONCE/QUARTER	ONCE/QUARTER	GRAB
PH ǂ	SU	6.5-9.0	-	SAME	ONCE/QUARTER	ONCE/QUARTER	GRAB
TSS	mg/L	100	-	100, 50	ONCE/QUARTER	ONCE/QUARTER	GRAB
METALS							
ALUMINUM, TR	µg/L	**	3,000	749, 373	ONCE/QUARTER	ONCE/QUARTER	GRAB
CHROMIUM III, TR	µg/L	**	414	*, *	ONCE/QUARTER	ONCE/QUARTER	GRAB
CHROMIUM VI, DISSOLVED	µg/L	**	53	15, 7	ONCE/QUARTER	ONCE/QUARTER	GRAB
COPPER, TR	µg/L	**	44	22, 11	ONCE/QUARTER	ONCE/QUARTER	GRAB
IRON, TR	µg/L	**	4,500	1639, 817	ONCE/QUARTER	ONCE/QUARTER	GRAB
ZINC, TR	µg/L	**	1,602	180, 90	ONCE/QUARTER	ONCE/QUARTER	GRAB
NUTRIENTS							
NITROGEN, TOTAL (TN)	mg/L	*	-	*, *	ONCE/QUARTER	ONCE/QUARTER	GRAB
PHOSPHORUS, TOTAL (TP)	mg/L	*	-	*, *	ONCE/QUARTER	ONCE/QUARTER	GRAB
OTHER							
PHENOLS, TOTAL	µg/L	*	-	*, *	ONCE/QUARTER	ONCE/QUARTER	GRAB
4-CHLORO-3-METHYLPHENOL	µg/L	*	-	*, *	ONCE/QUARTER	ONCE/QUARTER	GRAB

* Monitoring requirement only
** Monitoring with associated benchmark
ǂ The facility will report the minimum and maximum pH values; pH is not to be averaged
TR Total Recoverable

DERIVATION AND DISCUSSION OF LIMITS:

PHYSICAL:

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

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

Temperature
The previous permit required reporting the discharge's temperature. Temperature is not relevant for stormwater discharges. Parameter removed.

CONVENTIONAL:

Chemical Oxygen Demand (COD)
Previous permit limitations were 120 mg/L daily maximum and 90 mg/L monthly average. The facility reported between 20.3 and 135 mg/L for this parameter. Monitoring is included using the permit writer's best professional judgment. There is no water quality standard for COD; however, increased oxygen demand may impact instream water quality. COD is also a valuable indicator parameter. COD monitoring allows the permittee to identify increases in COD that may indicate materials/chemicals coming into contact with stormwater that cause an increase in oxygen demand. Increases in COD may indicate a need for maintenance or improvement of BMPs. Additionally, the permit writer has determined this facility is eligible for a benchmark for this parameter hence a benchmark value will be implemented for this parameter. The benchmark value will be set at **155 mg/L**. This value falls within the range of values implemented in other permits that have similar industrial activities and was developed on a site specific basis.

Cyanide Amenable to Chlorination (CATC)
Previous permit implemented limitations for this parameter; 22 µg/L daily maximum, 11 µg/L monthly average. Protection of Aquatic Life CCC = 5 µg/L, CMC = 22 µg/L, Background CN = 0 µg/L; Acute WLA: C_e = **22 µg/L**; monthly averages not continued. The facility reported all non-detections for this parameter, monitoring not continued.

Oil & Grease
Previous permit limits 15 mg/L daily maximum, 10 mg/L monthly average. The permittee reported between 5 (non-detect) and 29.4 mg/L for this parameter. The permit writer has determined the permittee has reasonable potential to cause or contribute to exceedances of in-stream water quality, both numeric and narrative. Stormwater sources are likely from leaking vehicles; non-stormwater sources (which should not be present in the stormwater) may be from the lime fleshing process where fat is removed from the hides. Conventional pollutant, in accordance with 10 CSR 20-7.031 Table A: *Criteria for Designated Uses*; 10 mg/L monthly average (chronic standard). The daily maximum was calculated using the *Technical Support Document for Water Quality-Based Toxics Control* (EPA/505/2-90-001). Section 5.4.2 indicates the waste load allocation can be set to the chronic standard. When the chronic standard is multiplied by 1.5, the daily maximum can be calculated. Hence, 10 * 1.5 = 15 mg/L for the daily maximum. Only the daily maximum is continued from the previous permit.

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

Total Suspended Solids (TSS)
Previous permit limitations were 100 mg/L daily maximum and 50 mg/L monthly average. The facility reported from 14 to 444 mg/L for this parameter. The permit writer has determined the facility has reasonable potential to cause or contribute to in-stream exceedances of general narrative criteria therefore a limit must be maintained. There is no water quality standard for TSS; however, sediment discharges can negatively impact aquatic life habitat. TSS is also a valuable indicator parameter. TSS monitoring allows the permittee to identify increases in TSS that may indicate uncontrolled materials leaving the site. Increased suspended solids in runoff can lead to decreased available oxygen for aquatic life and an increase of surface water temperatures in a receiving stream. Suspended solids can also be carriers of toxins, which can adsorb to the suspended particles; therefore, total suspended solids are a valuable indicator parameter for other pollution. The daily maximum limitation of **100 mg/L** will be retained.

METALS:

Aluminum, Total Recoverable
Previous permit limitations were 749 mg/L daily maximum and 373 µg/L monthly average. The acute protection of aquatic life standard is 8,250 µg/L. The permittee reported between 212 and 5550 µg/L for this parameter. The permit writer has determined this facility may be approved for a benchmark of **3,000 µg/L**.

Arsenic, Total Recoverable
Previous permit limits were 33 µg/L daily maximum and 16 µg/L monthly average; the chronic water quality standard is 20 µg/L. The facility reported 10 µg/L for every discharge which is the detection limit for this parameter; this parameter was not found in the discharge during the last permit cycle. The permit writer has determined this parameter is eligible for removal. Limitations or monitoring not continued.

Barium, Total Recoverable
The previous permit required monitoring for this parameter. The permittee reported from 12.8 to 178 µg/L for this parameter. Missouri water quality standards for streams with the drinking water use are 2,000 µg/L. The permittee has shown through sampling that this parameter is not present in amounts sufficient to cause or contribute to in-stream exceedances of this parameter. Monitoring not continued; monitoring with limitations and benchmarks of other metals in the permit will serve as surrogates.

Chromium, Trivalent, Total Recoverable
The previous permit was monitoring only. The facility reported between 10 (non-detect) and 360 µg/L for this parameter. This is a parameter of concern at the site; chromium is the main ingredient used in the tanning process; the facility uses Waynetan which is a liquid chromium sulfate. Trivalent chromium salts (Cr III) are among the most commonly used tanning agents. Chromium binds with the collagenous protein to convert to leather. Chromium wastewater is typically generated from post-tanning wet processes, from stock drainage, and wringing. The reducing characteristics of tannery sludge serve to stabilize Cr(III) with respect to hexavalent chromium (Cr VI) content, as a result of the presence of organic matter and sulfide.

Because the values submitted by the facility are less than half of the proposed water quality standards the permittee is eligible for a benchmark for this parameter. Tannery wastewater is not an allowed discharge in this permit.

The permit writer has determined that a technology benchmark is appropriate and necessary for this facility. The permit writer toured the facility on 11/30/2017 and noted that there was some track-out from the covered sludge pad area (centrally located on the north side of the property; see diagrams in Part I). An inspection on 5/1/2009 noted the same thing. Best Management Practices (BMPs) employed at the facility show the facility can and has maintained a minimum standard of site cleanliness at or below **414 µg/L**; the permit writer has determined the benchmark shall be established at this value. Values reported in excess of this benchmark value must be described in a Corrective Action Report and kept with the SWPPP as to the actions staff took to minimize the pollutant in subsequent stormwater discharges.

Chromium, Hexavalent, Dissolved
The previous permit limits were 15 µg/L daily maximum and 7 µg/L monthly average; Missouri's acute water quality standard is 165 µg/L for this parameter. The facility stated, at the time of purchase of Prime Tanning (2009), National Beef Leathers ceased using hexavalent chromium in the processes at the facility. The facility reported between 4.7 and 86 µg/L (2nd quarter 2016) for this parameter.

The values show that speciates of chromium are still present at the facility in the stormwater. Chromium forms several species, relative proportions of which depend on pH (e.g. between pH 1 and 6, $HCrO_4^-$ is the predominant form, until it attains the Cr^{6+} concentration 10^{-2} M when it starts to condense yielding the orange-red dichromate ion). The nature and behavior of various Cr forms found in wastewater can be quite different from those present in natural water because of altered physico-chemical condition of the effluents originating from various industrial sources. The presence and concentration of Cr forms in effluents depends on Cr compounds applied during processing, pH, organic and/or inorganic waste coming from the material processing. Cr^{3+} in the effluents is the most expected form but with Redox reactions occurring in the sludge, an increase in the hexavalent form can occur.

In the application for permit renewal, the facility disclosed 35,000 gallons of salt brine was spilled from the brine tank into the stormwater conveyance on 6/6/2016. Hexavalent chromium, while not used in the process, may have been created through chemical reactions described above resulting in the creation of species variants, or from historic contamination. The permit writer has determined a benchmark is available for this parameter; the 95th percentile of the data is 53.2; the benchmark will be 53 µg/L.

Cobalt, Total Recoverable
The previous permit required monitoring for this parameter. The facility reported from 5 (non-detection) to 6.9 µg/L for this parameter. Missouri water quality standards for streams with the drinking water use is 1,000 µg/L. The permit writer has determined, by using best professional judgment, this parameter is not of concern in the stormwater at the site. Monitoring not continued; other parameters in this permit are limited and will serve as surrogates for control of this parameter as well.

Copper, Total Recoverable
Previous permit limitations for this parameter were 22 µg/L daily maximum and 11 µg/L monthly average. The permittee reported between 10 (non-detection) and 23.3 µg/L. After review of the SWPPP, BMPs, receiving waterbodies, and discharge data, the benchmark will be established at 44 µg/L. This benchmark is set below the Missouri Water Quality Standard.

Iron, Total Recoverable
The previous permit limitations for this parameter were 1,639 µg/L daily maximum and 817 µg/L monthly average. After review of the SWPPP, BMPs, receiving waterbodies, and discharge data, the benchmark will be established at 4,500 µg/L. This benchmark is set below the Missouri Water Quality Standard of 1,528,177 µg/L.

Lead, Total Recoverable
Previous permit limits were 151 µg/L daily maximum and 75 µg/L monthly average. The permittee reported between 2.5 and 21.7 µg/L for this parameter. The acute water quality standard for protection of aquatic life is: $e^{(1.273 * \ln 162 - 1.460448)} * (1.46203 - \ln 162 * 0.145712) = 108.69$; at Hardness 162. The permit writer has determined sampling for this parameter is no longer necessary and has removed all sampling requirements because this permittee does not have any reasonable potential to cause or contribute to exceedances of in-stream water quality standards.

Manganese, Total Recoverable
The previous permit required monitoring for this parameter citing the oxidizing possibilities of manganese and ability to easily form manganese sulfate. There are no water quality standards for this parameter and the facility reported between 17.5 and 423 µg/L for this parameter. These values are significantly lower than other industrial waste waters; monitoring not continued per the permit writer's best professional judgment; this permit contains limitations and benchmarks for numerous other parameters which will serve as surrogates for manganese.

Zinc, Total Recoverable
Previous permit limitations for this parameter were 180 µg/L daily maximum and 90 µg/L monthly average. After review of the SWPPP, BMPs, receiving waterbodies, and discharge data, the benchmark will be established at 1,602 µg/L. This benchmark is set below the Missouri Water Quality Standard.

NUTRIENTS:

Ammonia, Total as Nitrogen
The previous permit required monitoring for this parameter. The values range from 0.1 to 0.98 mg/L. The chronic maximum concentration for ammonia for both seasons at standard seasonal temperatures and a standard pH of 7.8 SU, is 12.1 mg/L. Because this is stormwater only, the permit writer did not complete a numeric reasonable potential analysis but did complete a reasonable potential determination. The permit writer has determined this facility does not have reasonable potential to cause or contribute to exceedances of ammonia in the receiving stream. Monitoring not continued.

Season	Temp (°C)	pH (SU)	Total Ammonia Nitrogen CCC (mg/L)	Total Ammonia Nitrogen CMC (mg/L)
Summer	26	7.8	1.5	12.1
Winter	6	7.8	3.1	12.1

Nitrogen, Total N (TN)
The previous permit required monitoring for this parameter. This permittee works with biological components; the parameter is appropriate for the discharge. The state, in conjunction with the Environmental Protection Agency is currently working on nutrient limitations for the state. Quarterly monitoring continued until reasonable potential/no RP can be determined.

Phosphorous, Total P (TP)
The previous permit required monitoring for this parameter. This permittee works with biological components; the parameter is appropriate for the discharge. The state, in conjunction with the Environmental Protection Agency is currently working on nutrient limitations for the state. Quarterly monitoring continued until reasonable potential/no RP can be determined.

OTHER:

Hardness as $CaCO_3$
The previous permit required monitoring of this parameter. However, these are stormwater discharges. Values reported by the facility range from 33.2 to 143 mg/L. Monitoring not continued.

Phenol, Total
Previous permit limits were 164 µg/L daily maximum and 82 µg/L monthly average citing the water quality standard as 100 µg/L for the drinking water use of the Missouri River. The permit writer reviewed the last permit and the reasons for including this parameter and does not agree with the determination of the application of the drinking water limit when the facility does not discharge directly to the river. Regardless, the water quality standard is for "phenol" not total phenols; daily maximum for protection of aquatic life is 10,200 µg/L. Total phenols are a group of parameters as follows: 4-chloro-3-methylphenol; 2-chlorophenol; 2,4-dichlorophenol; 2,6-dichlorophenol; 2,4-dimethylphenol; 2,4-dinitrophenol; dinoseb (2-sec-butyl-4,6-dinitro phenol); 2-methyl-4,6-dinitrophenol; 2-methylphenol (o-cresol); 3-methylphenol (m-cresol); 4-methylphenol (p-cresol); 4-nitrophenol; pentachlorophenol; phenol; 2,3,4,6-tetrachlorophenol; 2,4,5-trichlorophenol; and 2,4,6-trichlorophenol.

The facility has stated in the permit application for renewal that p-chloro-m-cresol (syn. 4-chloro-3-methylphenol; cas# 59-50-7) is a current substance in use by facility as an intermediate, byproduct, or final product. The permittee reported between 50 and 390 µg/L for total phenols. Only monitoring is continued from the previous permit. See next parameter.

4-chloro-3-methylphenol (syn. p-chloro-m-cresol)

The permittee reported this parameter was present as an intermediate, byproduct, or final product within the manufacturing process. The permittee has shown that at least one phenolic type pollutant is present at the facility through sampling for total phenols during the last permit cycle. Currently, there are no water quality standards for this parameter but Missouri is contemplating introducing water quality standards for this parameter at 500 µg/L for protection of human health via ingestion of water and fish. The permit writer has determined this parameter may be a pollutant of concern at this site; additionally, process wastewater is not a permitted discharge in this permit and the facility should make great strides to assure this pollutant is not present in the stormwater at the facility. Quarterly monitoring is instituted for this parameter.

OUTFALL #002 – STORMWATER ONLY

EFFLUENT LIMITATIONS TABLE:

PARAMETERS	UNIT	DAILY MAXIMUM LIMIT	BENCH-MARK	PREVIOUS PERMIT LIMITS	MINIMUM SAMPLING FREQUENCY	MINIMUM REPORTING FREQUENCY	SAMPLE TYPE
PHYSICAL							
FLOW	MGD	*	-	SAME	ONCE/QUARTER	ONCE/QUARTER	24 HR. ESTIMATE
CONVENTIONAL							
COD	mg/L	**	155	120, 90	ONCE/QUARTER	ONCE/QUARTER	GRAB
OIL & GREASE	mg/L	**	10	15, 10	ONCE/QUARTER	ONCE/QUARTER	GRAB
PH ǂ	SU	6.5-9.0	-	SAME	ONCE/QUARTER	ONCE/QUARTER	GRAB
TSS	mg/L	100	-	100, 50	ONCE/QUARTER	ONCE/QUARTER	GRAB
METALS							
CHROMIUM III, TR	µg/L	**	414	*, *	ONCE/QUARTER	ONCE/QUARTER	GRAB
CHROMIUM IV, DISSOLVED	µg/L	**	11	15, 7	ONCE/QUARTER	ONCE/QUARTER	GRAB

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

DERIVATION AND DISCUSSION OF LIMITS:

PHYSICAL:

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

CONVENTIONAL:

Chemical Oxygen Demand (COD)
Previous permit limitations were 120 mg/L daily maximum and 90 mg/L monthly average. The facility reported between 10 and 301 mg/L for this parameter. There is no water quality standard for COD; however, increased oxygen demand may impact instream water quality. COD is also a valuable indicator parameter. COD monitoring allows the permittee to identify increases in COD that may indicate materials/chemicals coming into contact with stormwater that cause an increase in oxygen demand. Increases in COD may indicate a need for maintenance or improvement of BMPs. Additionally, the permit writer has determined this facility is eligible for a benchmark for this parameter hence a benchmark value will be implemented for this parameter. The benchmark value will be set at **155 mg/L**. This value falls within the range of values implemented in other permits that have similar industrial activities and was developed on a site specific basis.

Oil & Grease
Previous permit limits 15 mg/L daily maximum, 10 mg/L monthly average. The permittee reported all non-detects for this parameter. The permit writer has determined the permittee is eligible for a benchmark for this outfall; the benchmark will be set at **10 mg/L**. This value falls within the range of industrial permit benchmarks typically achievable at most industrial facilities.

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

(continued)

Total Suspended Solids (TSS)

Previous permit limitations were 100 mg/L daily maximum and 50 mg/L monthly average. The facility reported from 5 to 2,380 mg/L for this parameter. The permit writer has determined the facility has reasonable potential to cause or contribute to in-stream exceedances of general narrative criteria therefore a limit must be maintained. There is no water quality standard for TSS; however, sediment discharges can negatively impact aquatic life habitat. TSS is also a valuable indicator parameter. TSS monitoring allows the permittee to identify increases in TSS that may indicate uncontrolled materials leaving the site. Increased suspended solids in runoff can lead to decreased available oxygen for aquatic life and an increase of surface water temperatures in a receiving stream. Suspended solids can also be carriers of toxins, which can adsorb to the suspended particles; therefore, total suspended solids are a valuable indicator parameter for other pollution. The daily maximum limitation of **100 mg/L** will be retained.

METALS:

Chromium, Trivalent, Total Recoverable

Previous permit was monitoring only. The facility reported between 10 (non-detect) and 780 µg/L for this parameter. Outfall #001 is provided a benchmark of **414 µg/L**; see outfall #001 derivation. The permit writer has determined outfall #002 should also be held to the same benchmark; outfall #002 drains a much smaller portion and no processing is occurring so the facility should be able to meet this benchmark at all times. Values reported in excess of this benchmark value must be described in a Corrective Action Report and kept with the SWPPP as to the actions staff took to minimize the pollutant in subsequent stormwater discharges. The 2017 inspection noted the building on the property may allow stormwater inside; the permittee should implement best management and good housekeeping practices to assure stormwater is not entering the building. This benchmark is set below the Missouri Water Quality Standard.

Chromium, Hexavalent, Dissolved

The previous permit limits were 15 µg/L daily maximum and 7 µg/L monthly average; Missouri's acute water quality standard is **165 µg/L** for this parameter. The facility stated, at the time of purchase of Prime Tanning (2009), National Beef Leathers ceased using hexavalent chromium in the processes at the facility. The facility reported between 5 and 12 µg/L (2nd quarter 2016) for this parameter. The permit writer has determined a benchmark may be applied; the 95th percentile of the data is 10.5 µg/L so the benchmark will be set at 11 µg/L.

Part V. SAMPLING AND REPORTING REQUIREMENTS:

Refer to each outfall's derivation and discussion of limits section to review individual sampling and reporting frequencies and sampling type. Additionally, see Standard Conditions Part I attached at the end of this permit and fully incorporated within.

ELECTRONIC DISCHARGE MONITORING REPORT (EDMR) SUBMISSION SYSTEM:
The U.S. Environmental Protection Agency (EPA) promulgated a final rule on October 22, 2015, to modernize Clean Water Act reporting for municipalities, industries, and other facilities by converting to an electronic data reporting system. This final rule requires regulated entities and state and federal regulators to use information technology to electronically report data required by the National Pollutant Discharge Elimination System (NPDES) permit program instead of filing paper reports. To comply with the federal rule, the Department is requiring all permittees to begin submitting discharge monitoring data and reports online.

Per 40 CFR 127.15 and 127.24, permitted facilities may request a temporary waiver for up to 5 years or a permanent waiver from electronic reporting from the Department. To obtain an electronic reporting waiver, a permittee must first submit an eDMR Waiver Request Form: http://dnr.mo.gov/forms/780-2692-f.pdf. A request must be made for each facility. If more than one facility is owned or operated by a single entity, then the entity must submit a separate request for each facility based on its specific circumstances. An approved waiver is non-transferable.

The Department must review and notify the facility within 120 calendar days of receipt if the waiver request has been approved or rejected [40 CFR 124.27(a)]. During the Department review period as well as after a waiver is granted, the facility must continue submitting a hard-copy of any reports required by their permit. The Department will enter data submitted in hard-copy from those facilities allowed to do so and electronically submit the data to the EPA on behalf of the facility.

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

SAMPLING FREQUENCY JUSTIFICATION:
Sampling and reporting frequency was generally retained from previous permit. 40 CFR 122.45(d)(1) indicates all continuous discharges shall be permitted with daily maximum and monthly average limits. Sampling frequency for stormwater-only outfalls is typically quarterly even though BMP inspection occurs monthly. The facility may sample more frequently if additional data is required to determine if best management operations and technology are performing as expected.

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

SUFFICIENTLY SENSITIVE ANALYTICAL METHODS:
Please review Standard Conditions Part 1, section A, number 4. The analytical and sampling methods used shall conform to the reference methods listed in 10 CSR 20-7.015 and/or 40 CFR 136 unless alternates are approved by the Department. The facility shall use sufficiently sensitive analytical methods for detecting, identifying, and measuring the concentrations of pollutants. The facility shall ensure the selected methods are able to quantify the presence of pollutants in a given discharge at concentrations that are low enough to determine compliance with Water Quality Standards in 10 CSR 20-7.031 or effluent limitations unless provisions in the permit allow for other alternatives. A method is "sufficiently sensitive" when; 1) the method quantifies the pollutant below the level of the applicable water quality criterion or; 2) the method minimum level is above the applicable water quality criterion, but the amount of pollutant in a facility's discharge is high enough that the method detects and quantifies the level of pollutant in the discharge, or 3) the method has the lowest minimum level of the analytical methods approved under 10 CSR 20-7.015 and or 40 CFR 136. These methods are also required for parameters listed as monitoring only, as the data collected may be used to determine if numeric limitations need to be established. A permittee is responsible for working with their contractors to ensure the analysis performed is sufficiently sensitive. 40 CFR 136 lists the approved methods accepted by the Department. Table A at 10 CSR 20-7.031 shows water quality standards.

Part VI. Administrative Requirements

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

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

✓ *This permit would become synchronized by expiring the end of the 2nd quarter, 2023. To obtain a five year permit, this permit could be issued with an effective date of 7/1/2018. If the permit is finished prior to this date, the permit will be issued for a period of five years; therefore this permit is not being synchronized at this time unless delayed by the administrative process.*

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

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

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

☒ - The Public Notice period for this operating permit was from May 4, 2018 to June 4, 2018; no comments were received.

Date of Fact Sheet: June 5, 2018

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

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

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

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

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

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

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

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

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

Section B – Reporting Requirements

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

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

b. The following shall be included as information which must be reported within 24 hours under this paragraph.
   i. Any unanticipated bypass which exceeds any effluent limitation in the permit.
   ii. Any upset which exceeds any effluent limitation in the permit.
   iii. Violation of a maximum daily discharge limitation for any of the pollutants listed by the Department in the permit required to be reported within 24 hours.

c. The Department may waive the written report on a case-by-case basis for reports under paragraph 2. b. of this section if the oral report has been received within 24 hours.

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

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

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

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

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

Section C – Bypass/Upset Requirements

1. **Definitions.**
   a. *Bypass*: the intentional diversion of waste streams from any portion of a treatment facility, except in the case of blending.
   b. *Severe Property Damage*: substantial physical damage to property, damage to the treatment facilities which causes them to become inoperable, or substantial and permanent loss of natural resources which can reasonably be expected to occur in the absence of a bypass. Severe property damage does not mean economic loss caused by delays in production.
   c. *Upset*: an exceptional incident in which there is unintentional and temporary noncompliance with technology based permit effluent limitations because of factors beyond the reasonable control of the permittee. An upset does not include noncompliance to the extent caused by operational error, improperly designed treatment facilities, inadequate treatment facilities, lack of preventive maintenance, or careless or improper operation.

2. **Bypass Requirements.**
   a. Bypass not exceeding limitations. The permittee may allow any bypass to occur which does not cause effluent limitations to be exceeded, but only if it also is for essential maintenance to assure efficient operation. These bypasses are not subject to the provisions of paragraphs 2. b. and 2. c. of this section.
   b. Notice.
      i. Anticipated bypass. If the permittee knows in advance of the need for a bypass, it shall submit prior notice, if possible at least 10 days before the date of the bypass.
      ii. Unanticipated bypass. The permittee shall submit notice of an unanticipated bypass as required in Section B – Reporting Requirements, paragraph 5 (24-hour notice).
   c. Prohibition of bypass.
      i. Bypass is prohibited, and the Department may take enforcement action against a permittee for bypass, unless:
         1. Bypass was unavoidable to prevent loss of life, personal injury, or severe property damage;
         2. There were no feasible alternatives to the bypass, such as the use of auxiliary treatment facilities, retention of untreated wastes, or maintenance during normal periods of equipment downtime. This condition is not satisfied if adequate back-up equipment should have been installed in the exercise of reasonable engineering judgment to prevent a bypass which occurred during normal periods of equipment downtime or preventive maintenance; and
         3. The permittee submitted notices as required under paragraph 2. b. of this section.
      ii. The Department may approve an anticipated bypass, after considering its adverse effects, if the Department determines that it will meet the three (3) conditions listed above in paragraph 2. c. i. of this section.

3. **Upset Requirements.**
   a. Effect of an upset. An upset constitutes an affirmative defense to an action brought for noncompliance with such technology based permit effluent limitations if the requirements of paragraph 3. b. of this section are met. No determination made during administrative review of claims that noncompliance was caused by upset, and before an action for noncompliance, is final administrative action subject to judicial review.
   b. Conditions necessary for a demonstration of upset. A permittee who wishes to establish the affirmative defense of upset shall demonstrate, through properly signed, contemporaneous operating logs, or other relevant evidence that:
      i. An upset occurred and that the permittee can identify the cause(s) of the upset;
      ii. The permitted facility was at the time being properly operated; and
      iii. The permittee submitted notice of the upset as required in Section B – Reporting Requirements, paragraph 2. b. ii. (24-hour notice).
      iv. The permittee complied with any remedial measures required under Section D – Administrative Requirements, paragraph 4.
   c. Burden of proof. In any enforcement proceeding, the permittee seeking to establish the occurrence of an upset has the burden of proof.

Section D – Administrative Requirements

1. **Duty to Comply.** The permittee must comply with all conditions of this permit. Any permit noncompliance constitutes a violation of the Missouri Clean Water Law and Federal Clean Water Act and is grounds for enforcement action; for permit termination, revocation and reissuance, or modification; or denial of a permit renewal application.
   a. The permittee shall comply with effluent standards or prohibitions established under section 307(a) of the Federal Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under section 405(d) of the CWA within the time provided in the regulations that establish these standards or prohibitions or standards for sewage sludge use or disposal, even if the permit has not yet been modified to incorporate the requirement.
   b. The Federal Clean Water Act provides that any person who violates section 301, 302, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any such sections in a permit issued under section 402, or any requirement imposed in a pretreatment program approved under sections 402(a)(3) or 402(b)(8) of the Act, is subject to a civil penalty not to exceed $25,000 per day for each violation. The Federal Clean Water Act provides that any person who negligently violates sections 301, 302, 306, 307, 308, 318, or 405 of the Act, or any condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, or any requirement

imposed in a pretreatment program approved under section 402(a)(3) or 402(b)(8) of the Act, is subject to criminal penalties of $2,500 to $25,000 per day of violation, or imprisonment of not more than one (1) year, or both. In the case of a second or subsequent conviction for a negligent violation, a person shall be subject to criminal penalties of not more than $50,000 per day of violation, or by imprisonment of not more than two (2) years, or both. Any person who knowingly violates such sections, or such conditions or limitations is subject to criminal penalties of $5,000 to $50,000 per day of violation, or imprisonment for not more than three (3) years, or both. In the case of a second or subsequent conviction for a knowing violation, a person shall be subject to criminal penalties of not more than $100,000 per day of violation, or imprisonment of not more than six (6) years, or both. Any person who knowingly violates section 301, 302, 303, 306, 307, 308, 318 or 405 of the Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of the Act, and who knows at that time that he thereby places another person in imminent danger of death or serious bodily injury, shall, upon conviction, be subject to a fine of not more than $250,000 or imprisonment of not more than 15 years, or both. In the case of a second or subsequent conviction for a knowing endangerment violation, a person shall be subject to a fine of not more than $500,000 or by imprisonment of not more than 30 years, or both. An organization, as defined in section 309(c)(3)(B)(iii) of the CWA, shall, upon conviction of violating the imminent danger provision, be subject to a fine of not more than $1,000,000 and can be fined up to $2,000,000 for second or subsequent convictions.

c. Any person may be assessed an administrative penalty by the EPA Director for violating section 301, 302, 306, 307, 308, 318 or 405 of this Act, or any permit condition or limitation implementing any of such sections in a permit issued under section 402 of this Act. Administrative penalties for Class I violations are not to exceed $10,000 per violation, with the maximum amount of any Class I penalty assessed not to exceed $25,000. Penalties for Class II violations are not to exceed $10,000 per day for each day during which the violation continues, with the maximum amount of any Class II penalty not to exceed $125,000.

d. It is unlawful for any person to cause or permit any discharge of water contaminants from any water contaminant or point source located in Missouri in violation of sections 644.006 to 644.141 of the Missouri Clean Water Law, or any standard, rule or regulation promulgated by the commission. In the event the commission or the director determines that any provision of sections 644.006 to 644.141 of the Missouri Clean Water Law or standard, rules, limitations or regulations promulgated pursuant thereto, or permits issued by, or any final abatement order, other order, or determination made by the commission or the director, or any filing requirement pursuant to sections 644.006 to 644.141 of the Missouri Clean Water Law or any other provision which this state is required to enforce pursuant to any federal water pollution control act, is being, was, or is in imminent danger of being violated, the commission or director may cause to have instituted a civil action in any court of competent jurisdiction for the injunctive relief to prevent any such violation or further violation or for the assessment of a penalty not to exceed $10,000 per day for each day, or part thereof, the violation occurred and continues to occur, or both, as the court deems proper. Any person who willfully or negligently commits any violation in this paragraph shall, upon conviction, be punished by a fine of not less than $2,500 nor more than $25,000 per day of violation, or by imprisonment for not more than one year, or both. Second and successive convictions for violation of the same provision of this paragraph by any person shall be punished by a fine of not more than $50,000 per day of violation, or by imprisonment for not more than two (2) years, or both.

2. **Duty to Reapply.**
   a. If the permittee wishes to continue an activity regulated by this permit after the expiration date of this permit, the permittee must apply for and obtain a new permit.
   b. A permittee with a currently effective site-specific permit shall submit an application for renewal at least 180 days before the expiration date of the existing permit, unless permission for a later date has been granted by the Department. (The Department shall not grant permission for applications to be submitted later than the expiration date of the existing permit.)
   c. A permittees with currently effective general permit shall submit an application for renewal at least 30 days before the existing permit expires, unless the permittee has been notified by the Department that an earlier application must be made. The Department may grant permission for a later submission date. (The Department shall not grant permission for applications to be submitted later than the expiration date of the existing permit.)

3. **Need to Halt or Reduce Activity Not a Defense.** It shall not be a defense for a permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.

4. **Duty to Mitigate.** The permittee shall take all reasonable steps to minimize or prevent any discharge or sludge use or disposal in violation of this permit which has a reasonable likelihood of adversely affecting human health or the environment.

5. **Proper Operation and Maintenance**. The permittee shall at all times properly operate and maintain all facilities and systems of treatment and control (and related appurtenances) which are installed or used by the permittee to achieve compliance with the conditions of this permit. Proper operation and maintenance also includes adequate laboratory controls and appropriate quality assurance procedures. This provision requires the operation of back-up or auxiliary facilities or similar systems which are installed by a permittee only when the operation is necessary to achieve compliance with the conditions of the permit.

6. **Permit Actions.**
   a. Subject to compliance with statutory requirements of the Law and Regulations and applicable Court Order, this permit may be modified, suspended, or revoked in whole or in part during its term for cause including, but not limited to, the following:
      i. Violations of any terms or conditions of this permit or the law;
      ii. Having obtained this permit by misrepresentation or failure to disclose fully any relevant facts;
      iii. A change in any circumstances or conditions that requires either a temporary or permanent reduction or elimination of the authorized discharge; or
      iv. Any reason set forth in the Law or Regulations.
   b. The filing of a request by the permittee for a permit modification, revocation and reissuance, or termination, or a notification of planned changes or anticipated noncompliance does not stay any permit condition.

7. **Permit Transfer.**
   a. Subject to 10 CSR 20-6.010, an operating permit may be transferred upon submission to the Department of an application to transfer signed by the existing owner and the new owner, unless prohibited by the terms of the permit. Until such time the permit is officially transferred, the original permittee remains responsible for complying with the terms and conditions of the existing permit.
   b. The Department may require modification or revocation and reissuance of the permit to change the name of the permittee and incorporate such other requirements as may be necessary under the Missouri Clean Water Law or the Federal Clean Water Act.
   c. The Department, within 30 days of receipt of the application, shall notify the new permittee of its intent to revoke or reissue or transfer the permit.

8. **Toxic Pollutants.** The permittee shall comply with effluent standards or prohibitions established under section 307(a) of the Federal Clean Water Act for toxic pollutants and with standards for sewage sludge use or disposal established under section 405(d) of the Federal Clean Water Act within the time provided in the regulations that establish these standards or prohibitions or standards for sewage sludge use or disposal, even if the permit has not yet been modified to incorporate the requirement.

9. **Property Rights.** This permit does not convey any property rights of any sort, or any exclusive privilege.

10. **Duty to Provide Information.** The permittee shall furnish to the Department, within a reasonable time, any information which the Department may request to determine whether cause exists for modifying, revoking and reissuing, or terminating this permit or to determine compliance with this permit. The permittee shall also furnish to the Department upon request, copies of records required to be kept by this permit.

11. **Inspection and Entry.** The permittee shall allow the Department, or an authorized representative (including an authorized contractor acting as a representative of the Department), upon presentation of credentials and other documents as may be required by law, to:
    a. Enter upon the permittee's premises where a regulated facility or activity is located or conducted, or where records must be kept under the conditions of the permit;
    b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;
    c. Inspect at reasonable times any facilities, equipment (including monitoring and control equipment), practices, or operations regulated or required under this permit; and
    d. Sample or monitor at reasonable times, for the purposes of assuring permit compliance or as otherwise authorized by the Federal Clean Water Act or Missouri Clean Water Law, any substances or parameters at any location.

12. **Closure of Treatment Facilities.**
    a. Persons who cease operation or plan to cease operation of waste, wastewater, and sludge handling and treatment facilities shall close the facilities in accordance with a closure plan approved by the Department.
    b. Operating Permits under 10 CSR 20-6.010 or under 10 CSR 20-6.015 are required until all waste, wastewater, and sludges have been disposed of in accordance with the closure plan approved by the Department and any disturbed areas have been properly stabilized. Disturbed areas will be considered stabilized when perennial vegetation, pavement, or structures using permanent materials cover all areas that have been disturbed. Vegetative cover, if used, shall be at least 70% plant density over 100% of the disturbed area.

13. **Signatory Requirement.**
    a. All permit applications, reports required by the permit, or information requested by the Department shall be signed and certified. (See 40 CFR 122.22 and 10 CSR 20-6.010)
    b. The Federal Clean Water Act provides that any person who knowingly makes any false statement, representation, or certification in any record or other document submitted or required to be maintained under this permit, including monitoring reports or reports of compliance or non-compliance shall, upon conviction, be punished by a fine of not more than $10,000 per violation, or by imprisonment for not more than six (6) months per violation, or by both.
    c. The Missouri Clean Water Law provides that any person who knowingly makes any false statement, representation or certification in any application, record, report, plan, or other document filed or required to be maintained pursuant to sections 644.006 to 644.141 shall, upon conviction, be punished by a fine of not more than ten thousand dollars, or by imprisonment for not more than six months, or by both.

14. **Severability.** The provisions of the permit are severable, and if any provision of the permit, or the application of any provision of the permit to any circumstance, is held invalid, the application of such provision to other circumstances, and the remainder of the permit, shall not be affected thereby.

24475

RECEIVED
MAR 10 2017
Water Protection Program

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

FOR AGENCY USE ONLY	
CHECK NUMBER	
DATE RECEIVED 3-10-17	FEE SUBMITTED 80

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

1. This application is for:
   - ☐ An operating permit for a new or unpermitted facility:
     Please indicate the original Construction Permit # _____
   - ☑ An operating permit renewal:
     Please indicate the permit # MO- 0136221 Expiration Date June 25, 2017
   - ☐ An operating permit modification:
     Please indicate the permit # MO-_____ Modification Reason: _____

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

2. FACILITY

NAME		TELEPHONE NUMBER WITH AREA CODE / FAX	
National Beef Leathers, LLC		(816) 238-1608 /	
ADDRESS (PHYSICAL)	CITY	STATE	ZIP CODE
205 Florence Road	Saint Joseph	MO	64504

3. OWNER

NAME	EMAIL ADDRESS	TELEPHONE NUMBER WITH AREA CODE / FAX	
National Beef Packing Company	bud.ludwig@nationalbeef.com	(816) 713-8552 /	
ADDRESS (MAILING)	CITY	STATE	ZIP CODE
PO Box 20046	Kansas City	MO	64195-0046

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

4. CONTINUING AUTHORITY

NAME	EMAIL ADDRESS	TELEPHONE NUMBER WITH AREA CODE / FAX	
National Beef Leathers, LLC	alan.ygsi@nationalbeef.com	(816) 236-1608 /	
ADDRESS (MAILING)	CITY	STATE	ZIP CODE
205 Florence Road	Saint Joseph	MO	64504

5. OPERATOR

NAME	CERTIFICATE NUMBER	TELEPHONE NUMBER WITH AREA CODE / FAX	
National Beef Leathers, LLC	N/A	(816) 236-1608 /	
ADDRESS (MAILING)	CITY	STATE	ZIP CODE
205 Florence Road	Saint Joseph	MO	64504

6. FACILITY CONTACT

NAME	TITLE / E-MAIL ADDRESS	TELEPHONE NUMBER WITH AREA CODE / FAX
Alan D. Ygsi	Environmental Manager / alan.ygsi@nationalbeef.com	(816) 236-1608 /

7. ADDITIONAL FACILITY INFORMATION

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

001 SE ¼ SW ¼ Sec 20 T 57N R 35W Buchanan County
UTM Coordinates Easting (X): 340858 Northing (Y): 4399904
For Universal Transverse Mercator (UTM), Zone 15 North referenced to North American Datum 1983 (NAD83)

002 SE ¼ SW ¼ Sec 20 T 57N R 35W Buchanan County
UTM Coordinates Easting (X): 340589 Northing (Y): 4399901

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

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

7.2 Primary Standard Industrial Classification (SIC) and Facility North American Industrial Classification System (NAICS) Codes.
001 – SIC 3111 and NAICS 316110 002 – SIC _____ and NAICS _____
003 – SIC _____ and NAICS _____ 004 – SIC _____ and NAICS _____

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

A.	Is your facility a manufacturing, commercial, mining or silviculture waste treatment facility? If yes, complete Form C or 2F. (2F is the U.S. EPA's Application for Storm Water Discharges Associate with Industrial Activity.)	YES ☐	NO ☑
B.	Is application for storm water discharges only? If yes, complete Form C or 2F.	YES ☑	NO ☐
C.	Is your facility considered a "Primary Industry" under EPA guidelines: If yes, complete Forms C or 2F and D.	YES ☑	NO ☐
D.	Is wastewater land applied? If yes, complete Form I.	YES ☐	NO ☑
E.	Is sludge, biosolids, ash or residuals generated, treated, stored or land applied? If yes, complete Form R.	YES ☐	NO ☑

F. If you are a Class IA CAFO, please disregard part D and E of this section. However, please attach any revision to your Nutrient Management Plan.

F. Attach a map showing all outfalls and the receiving stream at 1" = 2,000' scale.

9. ELECTRONIC DISCHARGE MONITORING REPORT (eDMR) SUBMISSION SYSTEM

Per 40 CFR Part 127 National Pollutant Discharge Elimination System (NPDES) Electronic Reporting Rule, reporting of effluent limits and monitoring shall be submitted by the permittee via an electronic system to ensure timely, complete, accurate, and nationally consistent set of data. **One of the following must be checked in order for this application to be considered complete.** Please visit http://dnr.mo.gov/env/wpp/edmr.htm to access the Facility Participation Package.

☑ - You have completed and submitted with this permit application the required documentation to participate in the eDMR system.

☐ - You have previously submitted the required documentation to participate in the eDMR system and/or you are currently using the eDMR system.

☐ - You have submitted a written request for a waiver from electronic reporting. See instructions for further information regarding waivers.

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

NAME			
N/A			
ADDRESS	CITY	STATE	ZIP CODE

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

NAME AND OFFICIAL TITLE (TYPE OR PRINT)	TELEPHONE NUMBER WITH AREA CODE
Colby Horn - Vice President/ General Manager	(816) 214-2195
SIGNATURE	DATE SIGNED
	3-9-17

MO 780-1479 (09-16)

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

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

HAVE YOU INCLUDED:

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

Please print or type in the unshaded areas only.

EPA ID Number (*copy from Item 1 of Form 1*)
MOD054084314

Form Approved. OMB No. 2040-0086
Approval expires 5-31-92

FORM 2F NPDES

U.S. Environmental Protection Agency
Washington, DC 20460

Application for Permit to Discharge Storm Water Discharges Associated with Industrial Activity

Paperwork Reduction Act Notice

Public reporting burden for this application is estimated to average 28.6 hours per application, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding the burden estimate, any other aspect of this collection of information, or suggestions for improving this form, including suggestions which may increase or reduce this burden to: Chief, Information Policy Branch, PM-223, U.S. Environmental Protection Agency, 1200 Pennsylvania Avenue, NW, Washington, DC 20460, or Director, Office of Information and Regulatory Affairs, Office of Management and Budget, Washington, DC 20503.

I. Outfall Location

For each outfall, list the latitude and longitude of its location to the nearest 15 seconds and the name of the receiving water.

A. Outfall Number (*list*)	B. Latitude			C. Longitude			D. Receiving Water (*name*)
SE Corner 001	39.00	20.00	27.00	88.00	47.00	53.00	City of St. Joseph storm water conveance ditch
							located at SE corner of NBL property north of Flo-
							rence Road and West of Stockyards Expressway; MO
							Department of Transportation R-O-W; and, as
							alleged by MDNR, the Missouri River.
002	39.00	44.00	12.9421	94.00	51.00	24.7953	Stormwater conveyance East of the property which
							drains to the Missouri River.

II. Improvements

A. Are you now required by any Federal, State, or local authority to meet any implementation schedule for the construction, upgrading or operation of wastewater treatment equipment or practices or any other environmental programs which may affect the discharges described in this application? This includes, but is not limited to, permit conditions, administrative or enforcement orders, enforcement compliance schedule letters, stipulations, court orders, and grant or loan conditions.

1. Identification of Conditions, Agreements, Etc.	2. Affected Outfalls		3. Brief Description of Project	4. Final Compliance Date	
	number	source of discharge		a. req.	b. proj.
N/A					

B: You may attach additional sheets describing any additional water pollution (or other environmental projects which may affect your discharges) you now have under way or which you plan. Indicate whether each program is now under way or planned, and indicate your actual or planned schedules for construction.

III. Site Drainage Map

Attach a site map showing topography (or indicating the outline of drainage areas served by the outfalls(s) covered in the application if a topographic map is unavailable) depicting the facility including: each of its intake and discharge structures; the drainage area of each storm water outfall; paved areas and buildings within the drainage area of each storm water outfall, each known past or present areas used for outdoor storage of disposal of significant materials, each existing structural control measure to reduce pollutants in storm water runoff, materials loading and access areas, areas where pesticides, herbicides, soil conditioners and fertilizers are applied; each of its hazardous waste treatment, storage or disposal units (including each area not required to have a RCRA permit which is used for accumulating hazardous waste under 40 CFR 262.34); each well where fluids from the facility are injected underground; springs, and other surface water bodies which received storm water discharges from the facility.

Continue on Page 2

Continued from the Front

IV. Narrative Description of Pollutant Sources

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

Outfall Number	Area of Impervious Surface (provide units)	Total Area Drained (provide units)	Outfall Number	Area of Impervious Surface (provide units)	Total Area Drained (provide units)
001	11.7 Acres	16.6 Acres	002	1.27 Acres	2.28 Acres

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

Please see attached Exibit IV

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

Outfall Number	Treatment	List Codes from Table 2F-1
001	Please refer to Exibit IV	
002	Please refer to Exibit IV	

V. Nonstormwater Discharges

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

Name and Official Title (*type or print*)	Signature	Date Signed
Alan D. Ygsi		3/9/17

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

Visual inspection done on February 28, 2017 on the stormwater collection system leading to outfall 001 and 002 showed no discharges during dry weather conditions.

VI. Significant Leaks or Spills

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

July 12, 2014 - Chromium containing solution was discharged to a stormwater impoundment area East of the main warehouse. The stormwater impoundment discharges to the City of St. Joseph POTW through a stand pipe located in the middle of the impoundment. It was estimated that ~300 gallons of the wastewater overflowed to the City POTW combined sewer storm drain.

June 6, 2016 - Approximately 35,000 gallons of salt brine was spilled from a brine tank located West of the main process building. A significant volume then made it off the property, into the stormwater conveyance to the south and west of the property, likely into the Missouri river.

EPA ID Number *(copy from Item 1 of Form 1)*
MOD054084314 Outfall 001

VII. Discharge Information

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

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

☑ Yes (*list all such pollutants below*) ☐ No (*go to Section IX*)

1. p-Chloro-M-Cresol

VIII. Biological Toxicity Testing Data

Do you have any knowledge or reason to believe that any biological test for acute or chronic toxicity has been made on any of your discharges or on a receiving water in relation to your discharge within the last 3 years?

☑ Yes (*list all such pollutants below*) ☐ No (*go to Section IX*)

WET test is required by our existing permit annually. Results shows no acute or chronic toxicity is present in our stormwater discharge.

IX. Contract Analysis Information

Were any of the analyses reported in Item VII performed by a contract laboratory or consulting firm?

☑ Yes (*list the name, address, and telephone number of, and pollutants analyzed by, each such laboratory or firm below*) ☐ No (*go to Section X*)

A. Name	B. Address	C. Area Code & Phone No.	D. Pollutants Analyzed
Pace Analytical Services	9608 Loiret Boulevard, Lenexa, KS 66219	913-599-5665	All pollutants

X. Certification

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

A. Name & Official Title (*Type Or Print*)	B. Area Code and Phone No.
Colby Horn - Vice President/General Manager	(816) 214-2195
C. Signature	D. Date Signed
	3-9-17

VII. Discharge information *(Continued from page 3 of Form 2F)*

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

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	ND	N/A	ND		1	
Biological Oxygen Demand (BOD5)	N/A		N/A		N/A	
Chemical Oxygen Demand (COD)	39.3 mg/L		39.3 mg/L		1	Environmental
Total Suspended Solids (TSS)	31 mg/L		31 mg/L		1	Environmental
Total Nitrogen	1.0 mg/L		1.0 mg/L		1	Environmental
Total Phosphorus	0.12 mg/L		0.12 mg/L		1	Environmental
pH	Minimum 7.8	Maximum 7.8	Minimum N/A	Maximum N/A	1	Environmental

Part B – List each pollutant that is limited in an effluent guideline which the facility is subject to or any pollutant listed in the facility's NPDES permit for its process wastewater (if the facility is operating under an existing NPDES permit). Complete one table for each outfall. See the instructions for additional details and requirements.

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Aluminum, TR	1330 ug/L	N/A	1330 ug/L	N/A	1	Environmental, Structural
Arsenic, TR	ND		ND		1	
Barium, TR	32.7 ug/L		32.7 ug/L		1	Environmental, Background
Chromium, TR	121 ug/L		121 ug/L		1	Use as raw material
Cobalt, TR	ND		ND		1	
Copper, TR	10.1 ug/L		10.1 ug/L		1	Environmental, Background
Iron, TR	1690 ug/L		1690 ug/L		1	Environmental, Background
Lead, TR	ND		ND		1	
Manganese, TR	46.2 ug/L		46.2 ug/L		1	Environmental, Background
Total Hardness	62500 ug/L		62500 ug/L		1	Environmental, Background
Zinc, TR	102 ug/L		102 ug/L		1	Environmental, Background
Oil & Grease	ND		ND		1	
Total Sus Solid	31.0 mg/L		31.0 mg/L		1	Environmental, Background
pH	7.8		7.8		1	Environmental, Background
Total Nitrogen	1.0 mg/L		1.0 mg/L		1	Environmental, Background
Chromium, Tri	0.12 mg/L		0.12 mg/L		1	Use as raw material
Sulfate	19.7 mg/L		19.7 mg/L		1	Use as raw material
Nitrogen, Ammon	0.28 mg/L		0.28 mg/L		1	Environmental, Background
Nitrogen, TKN	0.66 mg/L		0.66 mg/L		1	Environmental, Background
N2, NO2+NO3	ND		ND		1	
Phosphorus	0.12 mg/L		0.12 mg/L		1	Environmental, Background
COD	39.3 mg/L		39.3 mg/L		1	Environmental, Background
Phenolics	ND		ND		1	
Cyanide	ND		ND		1	
Amenable Cyanid	ND		ND		1	
Chromium, Hex	ND		ND		1	

Continued from the Front

Part C - List each pollutant shown in Table 2F-2, 2F-3, and 2F-4 that you know or have reason to believe is present. See the instructions for additional details and requirements. Complete one table for each outfall.

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
N/A						

Part D – Provide data for the storm event(s) which resulted in the maximum values for the flow weighted composite sample.

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
01/16/17	360 Minutes	0.49	> 72 Hrs.	N/A	16,979 Gallons

7. Provide a description of the method of flow measurement or estimate.

Total flow was estimated based on total area of impervious surface (ft2) multiplied by the precipitation amount (ft) and converting to gallons.

VII. Discharge information *(Continued from page 3 of Form 2F)*

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

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Oil and Grease	ND	N/A	ND		1	
Biological Oxygen Demand (BOD5)	N/A		N/A			
Chemical Oxygen Demand (COD)	11.6 mg/L		11.6 mg/L		1	Enviromental
Total Suspended Solids (TSS)	10 mg/L		10 mg/L		1	Environmental
Total Nitrogen	N/A		N/A			
Total Phosphorus	N/A		N/A			
pH	Minimum 7.4	Maximum 7.4	Minimum	Maximum	1	Environmental

Part B – List each pollutant that is limited in an effluent guideline which the facility is subject to or any pollutant listed in the facility's NPDES permit for its process wastewater (if the facility is operating under an existing NPDES permit). Complete one table for each outfall. See the instructions for additional details and requirements.

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
Aluminum, TR	1210 ug/L		1210 ug/L		1	Environmental, Building
Arsenic, TR	ND		ND		1	
Barium, TR	16.8 ug/L		16.8 ug/L		1	Environmental, Background
Chromium, TR	68.7 ug/L		68.7 Ug/L		1	Environmental, Background
Cobalt, TR	ND		ND		1	
Copper, TR	ND		ND		1	
Iron, TR	1700 ug/L		1700 ug/L		1	Environmental, Background
Lead, TR	ND		ND		1	
Manganese, TR	91.2 ug/L		91.2 ug/L		1	Environmental, Background
Total Hardness	72400 ug/L		72400 ug/L		1	Environmental, Background
Zinc, TR	758 ug/L		758 ug/L		1	Environmental, Background
Trivalent Chrom	0.056 mg/L		0.056 mg/L		1	Environmental, Background
Hexavlent Chrom	0.012 mg/L		0.012 mg/L		1	Environmental, Background

Continued from the Front

Part C - List each pollutant shown in Table 2F-2, 2F-3, and 2F-4 that you know or have reason to believe is present. See the instructions for additional details and requirements. Complete one table for each outfall.

Pollutant and CAS Number *(if available)*	Maximum Values *(include units)*		Average Values *(include units)*		Number of Storm Events Sampled	Sources of Pollutants
	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite	Grab Sample Taken During First 20 Minutes	Flow-Weighted Composite		
N/A						

Part D – Provide data for the storm event(s) which resulted in the maximum values for the flow weighted composite sample.

1. Date of Storm Event	2. Duration of Storm Event *(in minutes)*	3. Total rainfall during storm event *(in inches)*	4. Number of hours between beginning of storm measured and end of previous measurable rain event	5. Maximum flow rate during rain event *(gallons/minute or specify units)*	6. Total flow from rain event *(gallons or specify units)*
01/16/17	360 Minutes	.49	>72 Hrs.	N/A	16,979 Gallons

7. Provide a description of the method of flow measurement or estimate.

Total flow was estimated based on total area of impervious surface (ft2) multiplied by the precipitation amount (ft) and converting to gallons.

Table IV B

Significant Activities/Materials	Site Dwg Reference	Method of Exposure	Materials Management Practices
SEMI BULK CHEMICAL RECEIVING/STORAGE			
AMMONIUM SULFATE	A	Tank Truck Unloading	Use of portable steel funneling transition piece to direct product directly into conveyor.
			Covered and sealed conveyor.
			Clean up of material if any spills on ground.
			Vault beneath conveyor able to contain storm water if necessary.
	B	Product Storage	Enclosed dry material building, so product is not exposed to storm water during storage.
PHOSPHORIC ACID	C	Storage	Secondary containment structure, level indicator
	D	Truck Receiving	Employee and truck driver present during unload
			Verification that tank can hold full truckload prior to unloading.
SODIUM FORMATE	E	Truck Receiving	Use of bucket to catch drips. Bucket stored inside when not unloading.
			Employee and truck driver present during unload.
			Use plant air to blow product off of truck to reduce product drips.
			Capped and locked receiving connection, verification of level to ensure delivery volume can fit into tank prior to unloading.
LIQUID AMMONIUM SULFATE (not currently received in liquid form)	F	Truck Receiving	No transfer line outside other than connection at wall reduces risk of freezing and line failure.
			Use of bucket to catch drips. Bucket stored inside when not unloading.
			Employee and truck driver present during unload.
			Use plant air to blow product off of truck to reduce product drips.
			Capped and locked receiving connection. Line leaks would flow to the WWTS via the wetwell.
			No transfer line outside other than connection at wall. This reduces risk of freezing and line failure.
Bulk Salt	G	Truck Receiving (East and West Brine Tank hookups)	Bucket used to catch drips during hose disconnection, and bucket stored inside when not in use.
			Truck driver present during unload.
			Capped and locked caps on hose ends.
			Sweep up any salt product on ground.
DILUTE ACID	H	Product Storage	Tanks not currently in use. Storage tanks located inside secondary containment.
	I	Truck Receiving, Product Transfer	Most of the lines, and the product pumps and meters are also within the containment area.
			Capped and locked receiving connection. Line leaks would flow to the WWTS via the wetwell.
			Nearby spill protection drain to wastewater treatment system
			Truck driver and employee present during unloading
			Level indicators, monthly inspection of containment area and transfer equipment
			Truck driver and employee present during unloading

Table IV B

Significant Activities/Materials	Site Dwg Reference	Method of Exposure	Materials Management Practices
CAUSTIC	J	Truck Receiving, Product Transfer	Capped and locked receiving connection
			Level indicators, monthly inspection of containment area and transfer equipment
			Truck unload area has sump in center of a concrete truck containment pad. Pad is located adjacent to storage tanks, thus reducing the length of unloading hoses and lines.
	K	Product Storage	Secondary containment structure around tanks, lines, pumps and meters
NaSH	J	Truck Receiving, Product Transfer	Truck driver and employee present during unloading
			Capped and locked receiving connection
			Level indicators, monthly inspection of containment area and transfer equipment
			Truck unload area has sump in center of a concrete truck containment pad. Pad is located adjacent to storage tanks, thus reducing the length of unloading hoses and lines.
	L	Product Storage	Secondary containment structure around tanks, lines, pumps and meters
WAYNETAN	M	Truck Unloading	Truck driver and employee present during unloading.
			Tank level verified prior to hooking up load.

Table IV B

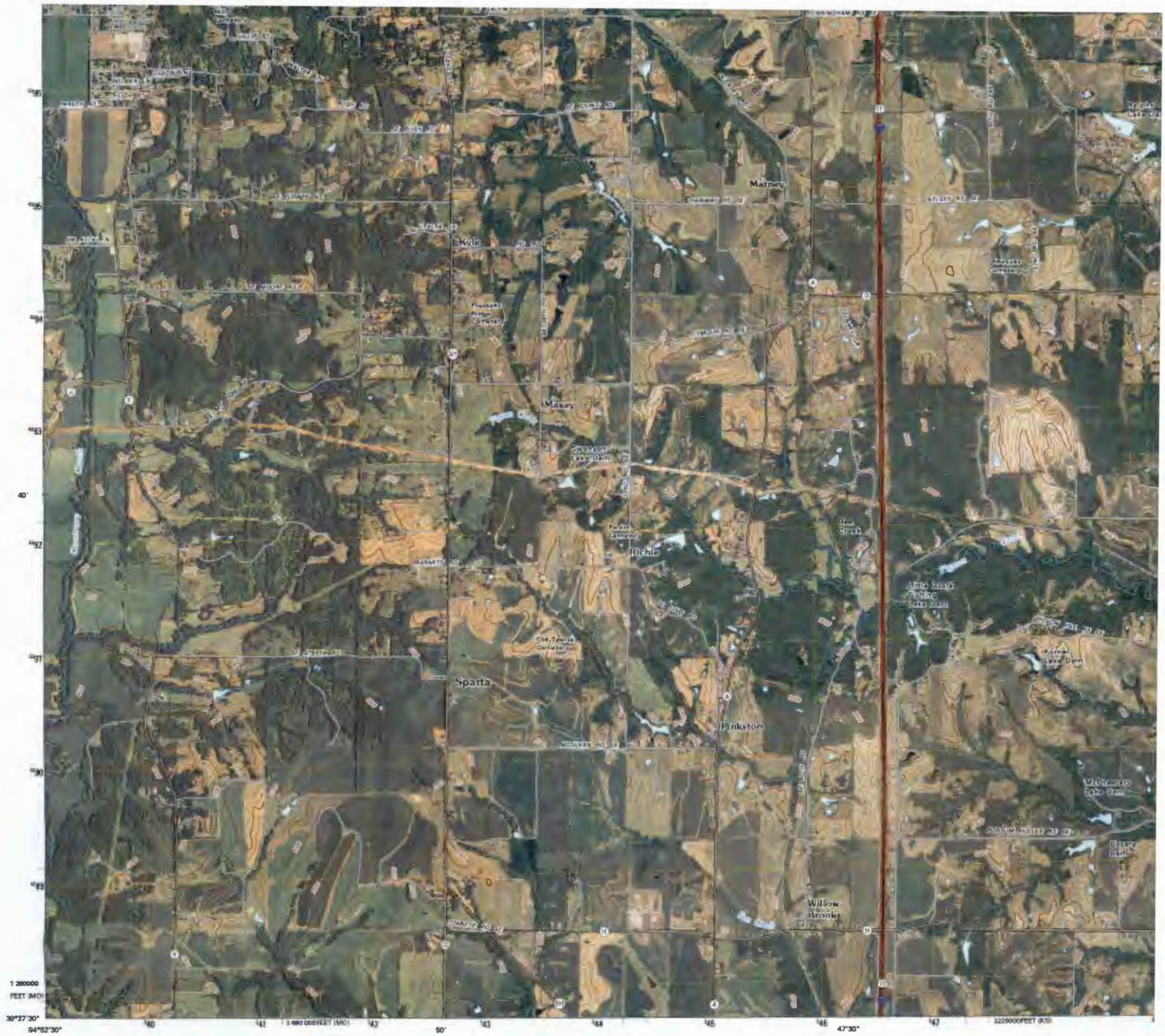
Significant Activities/Materials	Site Dwg Reference	Method of Exposure	Materials Management Practices
FERROUS CHEMICALS (Ferrous Sulfate, Ferric Chloride, etc.)	N	Truck Unloading	Spill response equipment available on site. Trucks parked immediately adjacent to tanks to avoid long hoses and transfer lines. Receiving tank level verification before hookup.
	O	Outside Storage Tanks and Head Tank	Truck contents are blown off with plant air, which works well to empty transfer lines prior to disconnection from tank. Storage tanks and head tank are located in containment areas.
MOLD INHIBITOR	P	Outside Storage	Tank not currently in use. Truck receiving will be developed and added to SWPPP when tank is put into service.
	Q	Truck Receiving	
FUEL OIL	R	Outside Storage	Tank not currently in use. Storage tank is in secondary containment. Collected precipitation is checked and pumped.
	S	Truck Receiving	Trucks would park on paved area and spills would go to wetwell. Truck unloading area will be added to SWPPP when tank is put into service.
BULK POLYMER	T	Truck Receiving	Short transfer connection immediately into storage tank inside reduces stormwater exposure. Spilled material on compacted gravel drive would be contained in ditch alongside drive. Product level indicator and visual confirmation prior to pumping product into storage tank inside.
GASOLINE AND DIESEL	U	Truck Receiving	Product delivery driver stays with load during filling. Spill absorbent on location. Secondary containment structure around both tanks.
	V	Product Storage	New tanks being installed in 2009.
	W	Product Dispensing	Pressure auto cutoff nozzles to fill tanks on mobile equipment. Discharge valve kept locked and keys are controlled. Drips are to be cleaned up to minimize storm water exposure.
CONCENTRATED SULFURIC ACID	X	Truck Receiving	Truck driver and employee present during unloading Capped and locked receiving connection Level indicators, monthly inspection of containment area and transfer equipment Truck unload area has sump in center of a concrete truck containment pad. Pad is located adjacent to storage tanks, thus reducing the length of unloading hoses and lines.
	Y	Product Storage	Truck unload area has sump in center of a concrete truck containment pad. Pad is located adjacent to storage tanks, thus reducing the length of unloading hoses and lines.
DRUM AND TOTE RECEIVING	Z	Delivery Receipt	Experienced forklift operators move material from truck beds into building immediately upon receipt.
MATERIAL HANDLING AREAS			
SHAVINGS PIT	AA	Mixing and Loading	Pit is enclosed on three sides, with an opening used to drop materials into the shed. Inert solids are placed at loader entry way to keep materials inside covered area. Trucks are staged on site only during loading, and materials loaded in the truck. Dry wood shavings material is placed in bed of truck prior to waste transfer to control moisture during transport.
SLUDGE BUILDING	BB	Sludge Storage, Loading	Covered shed,approx. 5-ft. concrete walls on 3 sides, with the fourth side open to allow a loader to drive in. Storm water that enters covered area is collected and sent to the WWTS[1].

Table IV B			
Significant Activities/Materials	**Site Dwg Reference**	**Method of Exposure**	**Materials Management Practices**
TRASH COMPACTOR AREA	CC	General Trash Transfer	There are water inlet grates beneath the compactor portion, and at the end of theportable trash dumpster that collects water from rain and from housekeeping of the area. This water is collected in an underground tank in the area, designed to hold the wastewater. A sewer contractor transfers the water into the WWTS.
FUME SCRUBBER	DD	Outside Operation	Scrubber water gravity drains back to a scrubber water feed tank, located inside the building.

Table IV B

Significant Activities/Materials	Site Dwg Reference	Method of Exposure	Materials Management Practices
OUTDOOR STORAGE AREAS			
PIPE RACK	EE	Storage rack	Remove oils and/or cover areas and use oil absorbent or oil absorbing pads or booms in potential drip areas.
PALLETIZED FINISHED HIDES STORAGE	FF	Outside Storage	Hides are shrink-wrapped/plastic covered onto pallets.
TEMPORARY HAZARDOUS WASTE STORAGE	GG	Outside Storage	Stored in secondary containment area, plastic covered to prevent water from sitting on top of drums, off of containment floor. Storage is temporary, and areas are inspected weekly.
WASTE OIL	HH	Outside Storage	Keep container closed and covered with a tarp when material is not being transferred into the container. Stage the container in an area where the spill would go to the WWTS or material is stored in secondary containment.
BULL GEARS	II	Storage	Remove oils and/or cover areas and use oil absorbent or oil absorbing pads or booms in potential drip areas.
EMPTY TOTES	JJ	Outside storage, awaiting disposal	Totes are empty prior to being placed outside. Covers have been replaced on totes.
LARGE MECHANICAL EQUIPMENT	KK		Gearboxes and oilers drained prior to being placed outside. Equipment is covered with tarps if necessary to prevent storm water exposure.
WASTEWATER TREATMENT EQUIPMENT			
EQUALIZATION TANK	LL	Outdoor storage tank overflow outside of designed area	Overflow piping is designed to flow into a wastewater treatment system drain, to be returned to the wetwell. An additional wetwell inlet drain is located in the vicinity in case the overflow event exceeds the capacity of the first inlet drain.
AERATION BASIN	MM	Basin overflow potential	Tank level control device, tank overflow line directed to paved area and inlets that flow to the WWTS wetwell.
CLARIFIERS	NN	Effluent Pump Failure	Basin is elevated above grade so surface water runoff does not flow into basin. Facility has a portable pump capable of pumping at a rate that can exceed the rate of rainfall onto the basin surface area, if the discharge pump(s) to the city failed. That pump can be accessed and set up to pump wastewater from the basin to the city in less than 2 hours.
WETWELL	OO	Pump Failure	Operators do rounds every 2 hours checking WWTS is working properly. Clarifiers have more than a 2 hour retention capacity to prevent overflows to storm water.
WETWELL BAR SCREENING SOLIDS TOTES	PP	Solids totes outside by wetwell	Totes drain liquids back to wetwell by placing them in paved area that drains to the wetwell.
	SEE DIRECTIONAL ARROWS	Tote transfer to solidification pit	The bar screenings are dewatered at the wetwell, then transferred into a solid container to reduce drips of wastewater while in transport.

Table IV B			
Significant Activities/Materials	**Site Dwg Reference**	**Method of Exposure**	**Materials Management Practices**
WETWELL RAKE	QQ	Outside operation	Rake drops solids into totes (see above). Tote area drains back into the wetwell; area is cleaned with water back to the wetwell.
SHIPPING AND RECEIVING			
HIDE RECEIVING	RR	Rainwater tracked/blown into covered receiving area	Covered receiving shed is enclosed on three sides. A sump is used to pump liquids that collect, to the WWTS.
FINISHED HIDE TRUCK LOADING	SS	Elevated dock area	Finished product is palletized and plastic covered, forklifts drive product into trucks from building interior.
BOX TRUCK STAGING AREAS		Parking Area	Trucks are kept closed, truck drivers instructed how/where belly tanks can be drained.
GROUNDSKEEPING/GRADING			
GROUNDSKEEPING/GRADING	TT (GENERAL HERBICIDE APPLICATION AREAS)	Herbicide Application, Ground Disturbance	Herbicides applied according to label directions by licensed applicators.
			Ground cover such as grass and gravel reapplied. Some areas are landscaped.



Produced by the United States Geological Survey
North American Datum of 1983 (NAD83)
World Geodetic System of 1984 (WGS84). Projection and
1 000-meter grid: Universal Transverse Mercator, Zone 15S
10 000-foot ticks: Missouri Coordinate System of 1983
(west zone)
and Kansas Coordinate System of 1983
(north zone)

Imagery.....NAIP, July 2007 - June 2008
Roads.....National Transportation Dataset, 2004 - 2008
Names.....GNIS, 2008
Hydrography.....National Hydrography Dataset, 2007
Contours.....National Elevation Dataset, 2008

UTM GRID AND 2009 MAGNETIC NORTH
DECLINATION AT CENTER OF SHEET

U.S. National Grid
100,000-m Square ID
Grid Zone Designation
15S

SCALE 1:24 000

KILOMETERS 0 0.5 1 2
METERS 1000 0 1000 2000
MILES 0 0.5 1
FEET 1000 0 1000 2000 3000 4000 5000 6000 7000 8000 9000 10000

CONTOUR INTERVAL 20 FEET

This map was produced to conform with version 0.5.10 of the
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MISSOURI

QUADRANGLE LOCATION

Wathena	Saint Joseph North	Cosby
Halls	Saint Joseph South	Agency
De Kalb	Dearborn	Edgerton

ADJOINING 7.5' QUADRANGLES

ROAD CLASSIF
Interstate Route
US Route
Ramp
Interstate Route
US

SAINT JOSEPH S
2009