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 RSMo, hereinafter, the Law), and the Federal Water Pollution Control Act (Public Law 92-500, 92nd Congress) as amended,

Permit No.	MO-0113671
Owner:	David Critten
Address:	28100 Quick Avenue, Gallatin, MO 64640
Continuing Authority:	Landmark Manufacturing Corporation
Address:	28100 Quick Avenue, Gallatin, MO 64640
Facility Name:	Landmark Manufacturing Corporation
Facility Address:	28100 Quick Avenue, Gallatin, MO 64640
Legal Description:	Sec.30, T59N, R26W, Daviess County
UTM Coordinates:	See following page
Receiving Stream:	Tributary to Big Muddy Creek
First Classified Stream and ID:	100K Extent Remaining Stream (C) WBID# 3960
USGS Basin & Sub-watershed No.:	102801011104: Big Muddy Creek

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

FACILITY DESCRIPTION

Industrial; SIC # 3465; NAICS # 336370.
This facility does not require a certified wastewater operator per 10 CSR 20-9.030 as this facility is privately owned. Light manufacturing: stamping, welding, steel processing, laser cutting, and corrosion protection dip. Industrial and domestic wastewater is stored in two basins, can be pumped between the basins, and is land applied on one field. There is one stormwater-only outfall.

This permit authorizes only land application and stormwater discharges under the Missouri Clean Water Law and the National Pollutant Discharge Elimination System; it does not apply to other regulated areas.

May 1, 2022
Effective Date

January 1, 2023
Modification Date

April 30, 2027
Expiration Date

Chris Wieberg, Director, Water Protection Program

FACILITY DESCRIPTION (CONTINUED)

PERMITTED FEATURE #001 – Domestic Wastewater
Domestic wastewater is treated by a single-cell non-discharging holding lagoon prior to being land applied by spray irrigation. Sludge is retained in the single-cell holding lagoon.

UTM Coordinates:	X = 425525, Y = 4416694
Design Population Equivalent:	59
Design Flow:	5,903 Gallons per Day (GPD)
Average Flow:	5,903 GPD
Total Depth (feet):	8
Maximum Operating Depth (feet):	6
Total Volume (gallons):	1,666,986
Maximum Operating Storage Volume (gallons):	1,269,244
Temporal Storage Capacity, 1-in-10 Year Wet Weather (days):	771

PERMITTED FEATURE #002 – Process Wastewater
Process wastewater is treated by a single-cell non-discharging holding lagoon prior to either being recycled back into the process or being land applied by spray irrigation. The amount of water land applied depends upon recycling needs. Process wastewater consists of cooling water, process wash water, and stormwater runoff.

UTM Coordinates:	X = 425437, Y = 4416561
Design Flow:	0.06 Millions of Gallons per Day (MGD)
Total Depth (feet):	8
Maximum Operating Depth (feet):	6
Total Volume (gallons):	5,868,285
Maximum Operating Storage Volume (gallons):	4,446,361
Temporal Storage Capacity, 1-in-10 Year Wet Weather (days):	771

OUTFALL # 003 – Stormwater
Stormwater runoff from roof drains that is not treated by the treatment facility and stormwater runoff from equipment storage areas. This outfall also includes stormwater runoff from the irrigation fields.

UTM Coordinates:	X = 425226, Y = 4416565
Average Flow:	precipitation dependent; 0.09 MGD based on most recent data

PERMITTED FEATURE #004 – Irrigation Field – irrigation of domestic wastewater and process wastewater; non-public use area; see permit for setbacks.

UTM Coordinates (centroid):	X = 425282, Y = 4416299
Application Rate Basis:	Hydraulic Loading
Crops and Vegetation:	Grass hay
Equipment Type:	permanent sprinklers; 13,500 gph
Field Slopes (%):	~0.3 maximum
Application Rates (varied per acre):	< 0.2 in/hour; < 0.5 in/day; < 1.0 in/week; < 12 in/year
Actual Application Rates:	0.1 in/hour; 0.4 in/day; 0.8 in/week; 4 in/year
Irrigation Volume (gallons per year):	6.5 MG at design loading
Irrigation Areas:	20 acres total available
Application Period:	200+ days per year; 480 hours per year

Presscake, generated at the ecoat line, is considered dewatered sludge, and is disposed of off-site as a special waste. In-house drivers transport the waste to a landfill. This is not in the lagoon.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

PERMITTED FEATURES #001 AND #002 *no discharge wastewater structures*	**TABLE A-1 OPERATIONAL MONITORING REQUIREMENTS**				
The facility is not authorized to discharge from this feature. The final requirements shall become effective on **May 1, 2022** and remain in effect until expiration of the permit. This feature shall be monitored and operationally controlled by the facility as specified below:					
MONITORING PARAMETERS	UNITS	MONITORING REQUIREMENTS			
		DAILY MINIMUM	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
LIMIT SET: OM					
Freeboard	feet	2.0	*	once/month	measured
MONITORING REPORTS SHALL BE SUBMITTED MONTHLY; THE FIRST REPORT IS DUE JUNE 28, 2022.					

PERMITTED FEATURES #001 AND #002 *Emergency Discharge*	**TABLE A-2 FINAL MONITORING REQUIREMENTS**				
The permittee is authorized to discharge from these outfalls only as a result of a catastrophic[‡] or chronic[‡] storm event. The final effluent limitations shall become effective upon issuance of the permit and remain in effect until expiration of the permit. Such discharges shall be controlled, limited to the maximum extent possible, and monitored by the permittee as specified below. All other discharges are not authorized but will be sampled.					
EFFLUENT PARAMETERS	UNITS	MONITORING REQUIREMENTS			
		DAILY MAXIMUM	TOTAL	MEASUREMENT FREQUENCY	SAMPLE TYPE
LIMIT SET: ED					
PHYSICAL					
Flow	MGD	*	* total	once/event[‡]	event total
Duration	Hours	*	96	once/event[‡]	event total
CONVENTIONAL					
Chemical Oxygen Demand	mg/L	*	-	once/event[‡]	grab
E. coli	#/ 100 mL	*	-	once/event[‡]	grab
Oil and Grease	mg/L	*	-	once/event[‡]	grab
pH [†]	SU	*	-	once/event[‡]	grab
Total Suspended Solids	mg/L	*	-	once/event[‡]	grab
NUTRIENTS					
Ammonia as N	mg/L	*	-	once/event[‡]	grab
MONITORING REPORTS SHALL BE SUBMITTED BY THE 28TH DAY OF THE MONTH FOLLOWING DISCHARGE CESSATION.					

‡‡ Wastewater shall be stored and land applied during suitable conditions so that there is no discharge from the storage structures or land application site. To qualify for this discharge allowance, the facility must be managing the basin appropriately and land applying as frequently as possible to maintain sufficient freeboard at all times, particularly prior to rainy seasons. An emergency discharge from wastewater storage structure(s) may only occur if rainfall exceeds the chronic or catastrophic rainfall events. Catastrophic storm event is a precipitation event of 24 hour duration or less that exceeds the 25-year, 24-hour storm event. A chronic storm event is a precipitation event with a duration of more than 24 hours that exceeds the 1-in-10-year return frequency. Discharge for any other reason or wastewater discharge from land application sites shall constitute a permit violation and shall be reported in accordance with Standard Conditions, Part 1.

A catastrophic storm event is 6.17 inches within 24 hours; a chronic storm event is 5.02 inches continuing beyond 24 hours for this facility. Once/event means the facility must take at least one sample at least once per discharge event which is a continuous flow from the same catastrophic or chronic storm event. If there was no discharge, a report is not necessary; if a discharge occurred, the facility must report all results of sampling into the eDMR system by the 28th day of the month following the completion of the discharge. When a qualifying discharge spans two months, the report is due for the following month. Discharge greater than 4 days (96 hours) is prohibited.

PERMITTED FEATURE #002 *wastewater*	**TABLE A-3** **FINAL MONITORING REQUIREMENTS**

The final requirements shall become effective on **May 1, 2022** and remain in effect until expiration of the permit. This feature shall be monitored and operationally controlled by the facility as specified below. The permittee is required to sample the wastewater annually; regardless if land application occurred. The sample should be taken at the pump house or by some other means. If more than one sample was taken for the year, the facility will average the samples and report the information.

PARAMETERS	UNITS	MONITORING REQUIREMENTS			
		DAILY MAXIMUM	ANNUAL AVERAGE	MINIMUM SAMPLING FREQUENCY	SAMPLE TYPE
LIMIT SET: A					
CONVENTIONAL					
Chloride	mg/L	*	*	once/year	grab
Oil and Grease	mg/L	*	*	once/year	grab
pH †	SU	*	*	once/year	grab
METALS					
Aluminum, Total	µg/L	*	*	once/year	grab
Cadmium, Total	µg/L	*	*	once/year	grab
Chromium, Total	µg/L	*	*	once/year	grab
Copper, Total	µg/L	*	*	once/year	grab
Iron, Total	µg/L	*	*	once/year	grab
Lead, Total	µg/L	*	*	once/year	grab
Nickel, Total	µg/L	*	*	once/year	grab
Zinc, Total	µg/L	*	*	once/year	grab
NUTRIENTS					
Nitrate/Nitrite as N	mg/L	*	*	once/year	grab
Kjeldahl Nitrogen, Total	mg/L	*	*	once/year	grab

MONITORING REPORTS SHALL BE SUBMITTED ANNUALLY; THE FIRST REPORT IS DUE JANUARY 28, 2023.

OUTFALLS #003 *Stormwater*	**TABLE A-4** **FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS**

The facility is authorized to discharge from outfall(s) as specified. The final effluent limitations shall become effective on **May 1, 2022** and remain in effect until expiration of the permit. Discharges shall be controlled, limited and monitored by the facility as specified below:

EFFLUENT PARAMETERS	UNITS	FINAL LIMITATIONS		BENCH-MARKS	MONITORING REQUIREMENTS	
		DAILY MAXIMUM	MONTHLY AVERAGE		MEASUREMENT FREQUENCY	SAMPLE TYPE
LIMIT SET: Q						
PHYSICAL						
Flow	MGD	*		-	once/quarter ◊	24 Hr Est.
CONVENTIONAL						
Chemical Oxygen Demand	mg/L	**		120	once/quarter ◊	grab
Oil & Grease	mg/L	15		-	once/quarter ◊	grab
pH †	SU	6.5 to 9.0		-	once/quarter ◊	grab
Total Suspended Solids	mg/L	110		-	once/quarter ◊	grab
METALS						
Aluminum, Total Recoverable	µg/L	**		1100	once/quarter ◊	grab
Copper, Total Recoverable	µg/L	**		16	once/quarter ◊	grab
Iron, Total Recoverable	µg/L	**		4000	once/quarter ◊	grab

MONITORING REPORTS SHALL BE SUBMITTED QUARTERLY; THE FIRST REPORT IS DUE JULY 28, 2022.

* Monitoring and reporting requirement only
** Monitoring and reporting requirement with benchmark. See Special Conditions for additional requirements.
† pH: 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. Spills, Overflows, and Other Unauthorized Discharges.
   (a) Any spill, overflow, or other discharge(s) not specifically authorized are unauthorized discharges.
   (b) Should an unauthorized discharge cause or permit any contaminants to discharge or enter waters of the state, the unauthorized discharge must be reported to the regional office as soon as practicable but no more than 24 hours after the discovery of the discharge. If the spill or overflow needs to be reported after normal business hours or on the weekend, the facility must call the Department's 24 hour spill line at 573-634-2436.
   (c) If the discharge was from an overflow from a no-discharge wastewater basin, the report must include all records confirming operation and maintenance records documenting proper maintenance. Operations must demonstrate the ability to meet the no-discharge requirement.

2. No-Discharge Wastewater Holding Structure(s) Minimum Best Management Practices (BMPs):
   (a) To prevent unauthorized discharges, the no-discharge wastewater structure must be properly designed, operated, and maintained to contain all wastewater plus run-in and direct precipitation.
   (b) During normal weather conditions, the liquid level in the storage structure shall be maintained below the upper operating level, so adequate storage capacity is available for use during adverse weather periods. The liquid level in the storage structure should be lowered on a routine schedule based on the design storage period. Typically this should be accomplished prior to expected seasonal wet and winter climate periods.
   (c) Maintain liquid level in the no-discharge wastewater structure at least 2.0 feet from the bottom of the discharge pipe, top of the basin, or the bottom of the overflow canal, whichever is lowest.
   (d) Monthly inspection of no-discharge wastewater basin(s) shall occur. Inspection notes will be kept at the facility and made available to the Department upon request. Electronic records retention is acceptable.
   (e) The inspections will note any issues with the no-discharge structure and will record the level of liquid as indicated by the depth marker.

3. Any discharge not meeting permitted limits may be pumped and hauled to an accepting wastewater treatment facility, or otherwise properly disposed.

4. Electronic Discharge Monitoring Report (eDMR) Submission System. The NPDES Electronic Reporting Rule, 40 CFR Part 127, reporting of effluent monitoring data and any report required by the permit (unless specifically directed otherwise by the permit), shall be submitted via an electronic system to ensure timely, complete, accurate, and nationally consistent set of data for the NPDES program. The eDMR system is currently the only Department-approved reporting method for this permit unless specified elsewhere in this permit, or a waiver is granted by the Department. The facility must register in the Department's eDMR system through the Missouri Gateway for Environmental Management (MoGEM) before the first report is due. All reports uploaded into the system shall be reasonably named so they are easily identifiable, such as "WET Test Chronic Outfall 002 Jan 2023", or "Outfall004-DailyData-Mar2025".

5. Stormwater Pollution Prevention Plan (SWPPP).
   The facility's SIC code or description is found in 40 CFR 122.26(b)(14) and/or 10 CSR 20-6.200(2) and hence shall implement a Stormwater Pollution Prevention Plan (SWPPP) which must be prepared and implemented upon permit effective date. The SWPPP must be kept on-site and not sent to the Department unless specifically requested. The SWPPP must be reviewed and updated annually or if site conditions affecting stormwater change.

The facility 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 March 2021) https://www.epa.gov/sites/production/files/2021-03/documents/swppp_guide_industrial_2021_030121.pdf The purpose of the 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 ineffective at providing the necessary protections for which it was designed. Corrective action describes the steps the facility took to eliminate the deficiency.

The SWPPP must include:

(a) A listing of specific contaminants and their control measures (BMPs) and a narrative explaining how BMPs are implemented to control and minimize the amount of contaminants potentially entering stormwater.

(b) A map with all outfalls and structural BMPs marked.

(c) A schedule for at least once per month site inspections and brief written reports. The inspection report must include precipitation information for the entire period since last inspection, as well as observations and evaluations of BMP effectiveness. A BMP is considered to be disrupted if it is rendered ineffective as a result of damage or improper maintenance. Categorization of a deficiency is reliant on the length of time required to correct each disrupted BMP. Corrective action after discovering a disrupted BMP must be taken as soon as possible. Throughout coverage under this permit, the facility must perform ongoing SWPPP review and revision to incorporate any site condition changes.
   (1) Operational deficiencies are disrupted BMPs which the facility is able to and must correct within 7 calendar days.
   (2) Minor structural deficiencies are disrupted BMPs which the facility is able to and must correct within 14 calendar days.
   (3) Major structural deficiencies (deficiencies projected to take longer than 14 days to correct) are disrupted BMPs which must be reported as an uploaded attachment through the eDMR system with the DMRs. The initial report shall consist of the deficiency noted, the proposed remedies, the interim or temporary remedies (including proposed timing of the placement of the interim measures), and an estimate of the timeframe needed to wholly complete the repairs or construction. If required by the Department, the facility shall work with the regional office to determine the best course of action. The facility should consider temporary structures to control stormwater runoff. The facility shall correct the major structural deficiency as soon as reasonably achievable.
   (4) All actions taken to correct the deficiencies shall be included with the written report, including photographs, and kept with the SWPPP. Additionally, corrective action of major structural deficiencies shall be reported as an uploaded attachment through the eDMR system with the DMRs.
   (5) BMP failure causing discharge through an unregistered outfall is considered an illicit discharge and must be reported in accordance with Standard Conditions Part I.
   (6) Inspection reports must be kept on site with the SWPPP and maintained for a period of five (5) years. These must be made available to Department personnel upon request. Electronic versions of the documents and photographs are acceptable.

(d) A provision for designating a responsible individual for environmental matters and a provision for providing training to all personnel involved in housekeeping, material handling (including but not limited to loading and unloading), storage, and staging of all operational, maintenance, storage, and cleaning areas. Proof of training shall be submitted upon request by the Department.

6. Site-wide minimum Best Management Practices (BMPs). At a minimum, the facility shall adhere to the following:

(a) Provide good housekeeping practices on the site to keep trash from entry into waters of the state. Dumpsters should remain closed when not in use.

(b) Prevent the spillage or loss of fluids, oil, grease, fuel, etc. from vehicle maintenance, equipment cleaning, warehouse activities, and other areas, to prevent the contamination of stormwater from these substances.

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

(d) Store all paint, solvents, petroleum products, petroleum waste products (except fuels), and storage containers (such as drums, cans, or cartons) so 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. Spill records should be retained on-site.

(e) Ensure adequate provisions are provided to prevent surface water intrusion into the wastewater storage basin and to divert stormwater runoff around the wastewater storage basin.

(f) Provide sediment and erosion control sufficient to prevent or minimize sediment loss off of the property, and to protect embankments from erosion.

(g) Wash water for vehicles, building(s), or pavement must be handled in a no-discharge manner (infiltration, hauled off-site, etc.). Describe the no-discharge method used and include all pertinent information (quantity/frequency, soap use, effluent destination, BMPs, etc.) in the application for renewal. If wash water is not produced, note this instead.

(h) Fire protection test water must be handled in a no-discharge manner (infiltration, hauled off-site, etc.).

Describe the no-discharge method used and include all pertinent information (quantity/frequency, source water, effluent destination, BMPs, etc.) in the application for renewal. If fire protection test water is not produced, note this instead.

(i) After snow or ice, if the facility applies sand/salt to the pavement of parking lots, sidewalks, or stairs, the facility shall sweep the lots to remove sand/salt as soon as possible after snow or ice melt, collect excess solids, and minimize and control the discharge of solids into stormwater inlets. Salt and sand shall be stored in a manner minimizing mobilization in stormwater (for example: under roof, in covered container, in secondary containment, under tarp, etc.).

7. Stormwater Benchmarks. This permit stipulates numeric pollutant benchmarks applicable to the facility's stormwater discharges.
   (a) Benchmarks do not constitute direct numeric effluent limitations; therefore, a benchmark exceedance alone is not a permit violation. Stormwater monitoring, numeric benchmark compliance, and visual inspections shall be used to determine the overall effectiveness of the BMPs identified in the SWPPP.
   (b) If a sample exceeds a benchmark concentration, the facility must review the SWPPP and BMPs to determine what improvements or additional controls are needed to reduce pollutant concentrations in future stormwater discharges.
   (c) Every time a numeric benchmark exceedance occurs, a Corrective Action Report (CAR) must be completed. A CAR is a document recording the efforts undertaken by the facility to improve BMPs to meet benchmarks in future samples. CARs must be retained with the SWPPP and be available to the Department upon request. This permit may require CARs be submitted to the Department upon permit renewal; see Renewal Requirements section below.
   (d) Failure to take corrective action to address numeric benchmark exceedance, and failure to make measureable progress towards achieving the numeric benchmark(s), is a permit violation.
   (e) Stormwater benchmarks and required minimum BMPs as described in this permit are enforceable permit conditions. Any requested change(s) to numeric benchmark values or deviation from minimum BMP requirements must be established through the permitting process. Assessment, evaluation, and implementation of specific BMPs to meet numeric benchmarks or minimum BMP requirements, must be addressed through the SWPPPs and CARs.

8. Petroleum Secondary Containment.
   The drainage area around the secondary containment area and the interior of the containment area shall be inspected monthly. Solids, sludge, and soluble debris shall not be allowed to accumulate in the secondary containment.
   (a) The interior of the secondary containment area shall be checked at least monthly for signs of leaks, spills, and releases of petroleum.
   (b) All petroleum captured in the secondary containment area shall be expeditiously removed and the source of the petroleum determined. Leaks or otherwise compromised equipment or appurtenances shall be promptly addressed/repaired.
   (c) Before releasing water accumulated in petroleum secondary containment areas, the water and area must be examined for hydrocarbon odor and presence of sheen to protect the general criteria found at 10 CSR 20-7.031(4).
   (d) Unimpacted stormwater (i.e. free from hydrocarbon odor and presence of sheen), should be drained from the secondary containment as soon as reasonably possible after a precipitation event.
   (e) If subparts (a) and (b) above were not followed, impacted stormwater shall not be discharged from the secondary containment and shall instead be managed in accordance with legally approved methods for disposal of process wastewater, such as being sent to an accepting wastewater treatment facility.
   (f) If subparts (a) and (b) were followed, impacted stormwater can only be drained from the secondary containment after removal of all odor or sheen utilizing appropriate methods.
   (g) The area surrounding the secondary containment must be free of signs of vegetative stress or other indicia of petroleum discharge.
   (h) The area below the outlet of the secondary containment area must be maintained to minimize soil washout, such as with stabilized vegetation, rip rap, or by releasing accumulated water slowly.
   (i) Records of all inspections, testing, and/or treatment of water accumulated in secondary containment shall be available on demand to the Department. Electronic records retention is acceptable. These records must be included in the SWPPP and must be included in the application for renewal.

9. Oil/Water Separators. This site is authorized to operate oil water separator tanks (if considered USTs) for the treatment of wastewater or stormwater and falls under 10 CSR 26-2.010(2)(B) if treating water with petroleum oils. OWS, serving this facility are hereby authorized and shall be operated per manufacturer's specifications. The specifications and operating records must be made accessible to Department staff upon request. Petroleum oil water separator sludge is considered used oil; sludge must be disposed of in accordance with 10 CSR 25-11.279. OWS treating animal, vegetable, or food grade oils are not required to be authorized under these regulations. All best management practices for all OWS systems must be adhered.

10. 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 for permit shield, and the CWA §402(k) for toxic substances. 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 CWA §§301(b)(2)(C) and (D), §304(b)(2), and §307(a)(2), 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 already limited in the permit.

This permit may be modified, revoked and reissued, or terminated for cause, including determination new pollutants found in the discharge not identified in the application for the new or revised permit. The filing of a request by the facility for a permit modification, termination, notice of planned changes, or anticipated non-compliance does not stay any permit condition.

11. Reporting of Non-Detects.
    (a) Compliance analysis conducted by the facility or any contracted laboratory shall be conducted in such a way the precision and accuracy of the analyzed result can be enumerated. See sufficiently sensitive test method requirements in Standard Conditions Part I, §A, No. 4 regarding proper testing and detection limits used for sample analysis. For the purposes of this permit, the definitions in 40 CFR 136 apply; method detection limit (MDL) and laboratory-established reporting limit (RL) are used interchangeably in this permit. The reporting limits established by the laboratory must be below the lowest effluent limits established for the specified parameter (including any parameter's future limit after an SOC) in the permit unless the permit provides for an ML.
    (b) The facility shall not report a sample result as "non-detect" without also reporting the MDL. Reporting "non-detect" without also including the MDL will be considered failure to report, which is a violation of this permit.
    (c) For the daily maximum, the facility shall report the highest value; if the highest value was a non-detect, use the less than "<" symbol and the laboratory's highest method detection limit (MDL) or the highest reporting limit (RL); whichever is higher (e.g. <6).
    (d) When calculating monthly averages, zero shall be used in place of any value(s) not detected. Where all data used in the average are below the MDL or RL, the highest MDL or RL shall be reported as "<#" for the average as indicated in item (c).

12. All outfalls and permitted features must be clearly marked in the field. A sign is not needed for the land application field; feature #004.

13. Report 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.

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

15. This permit does not cover land disturbance activities.

16. This permit does not apply to fertilizer products receiving a current exemption under the Missouri Clean Water Law and regulations in 10 CSR 20-6.015(3)(B)8, and are land applied in accordance with the exemption.

17. This permit does not allow stream channel or wetland alterations unless approved by Clean Water Act §404 permitting authorities.

18. This permit does not authorize in-stream treatment, the placement of fill materials in flood plains, placement of solid materials into any waterway, the obstruction of stream flow, or changing the channel of a defined drainage course.

19. All records required by this permit may be maintained electronically. These records should be maintained in a searchable format.

20. Changes in Discharges of Toxic Pollutant.
    In addition to the reporting requirements under 40 CFR 122.41, all existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Director per 40 CFR 122.42(a)(1) and (2) as soon as recognizing:
    (a) 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) 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 the pollutant in the permit application in accordance with 40 CFR 122.21(g)(7).
        (4) The level established by the Director in accordance with 40 CFR 122.44(f).

(c) Authorization of new or expanded pollutant discharges may be required under a permit modification or renewal, and may require an antidegradation review.

21. This permit does not authorize the facility to accept, treat, or discharge wastewater from other sources unless explicitly authorized herein. If the facility would like to accept, treat, or discharge wastewater from another activity or facility, the permit must be modified to include external wastewater pollutant sources in the permit.

22. Any discharges (or qualified activities such as land application) not expressly authorized in this permit, and not clearly disclosed in the permit application, cannot become authorized or shielded from liability under CWA section 402(k) or Section 644.051.16, RSMo, by disclosure to EPA, state, or local authorities after issuance of this permit via any means, including any other permit applications, funding applications, the SWPPP, discharge monitoring reporting, or during an inspection. Submit a permit modification application, as well as an antidegradation determination if appropriate, to request authorization of new or expanded discharges.

23. Renewal Application Requirements.
    (a) This facility shall submit an appropriate and complete application to the Department no less than 180 days prior to the expiration date listed on page 1 of the permit.
    (b) Application materials shall include complete Form A, Form C, and Form D. If the form names have changed, the facility should ensure they are submitting the correct forms as required by regulation.
    (c) Sampling for all parameters on Form D is required by law for all process wastewater at this facility.
    (d) This facility must submit Form B for the domestic wastewater feature.
    (e) This facility must submit Form I for land application of wastewater.
    (f) The facility must sample the stormwater outfalls and provide analysis for every parameter contained in the permit at any outfall/feature for at the site in accordance with 10 CSR 20-6.200(2)(C)1.E(I) and (II)
    (g) The facility shall submit the SWPPP and all supporting documentation with the next renewal.
    (h) The facility may use the electronic submission system to submit the application to the Program, if available.
    (i) This facility must submit all corrective action reports completed for the last permit term if a benchmark exceedance occurred.
    (j) This facility must submit all soil testing with the application for permit renewal, if different parameters than on the soil sampling tables in part A of the permit.

D. LAND APPLICATION CONDITIONS

1. Surficial land application of wastewater materials listed in the Facility Description of this permit is authorized and shall be conducted according to the following conditions. These land application conditions do not apply to fertilizer products receiving a current exemption under the Missouri Clean Water Law and regulations in 10 CSR 20-6.015(3)(B)8, and are land applied in accordance with the exemption. The minimum application requirements enumerated here, when followed, exempt stormwater runoff sampling requirements pursuant to 10 CSR 20-6.200(2)(B)3.B. Sludge is not permitted for land application under this permit.

2. Storage Basin Minimum Best Management Practices (BMPs)
    (a) To maintain structural integrity, basins/lagoons shall be inspected at least monthly, the berms of the storage basins shall be mowed and kept free of any deep-rooted vegetation, animal dens, or other potential sources of damage, any leaks or structural issues shall be noted and repaired as soon as possible.
    (b) The facility shall ensure adequate berms are provided to prevent surface water intrusion and run-in into the storage basins, will also divert stormwater runoff from around the storage basins, and will protect embankments from erosion.
    (c) The minimum and maximum operating water levels for the storage basins shall be clearly marked.
    (d) Each storage basin shall be operated and maintained to achieve and maintain no discharge status; including maximum water elevations up to the operating level of the 1-in-10 year or 25-year, 24-hour storm events.
    (e) The minimum storage capacity for the basin shall be 120 days per 10 CSR 20-8.200(6)(C)1. D. for Daviess County facilities.
    (f) Storage basins shall be lowered to the minimum operating level prior to November 30 each year.
    (g) At least one sign shall appear for each basin describing the wastewater type.
    (h) It is a violation of this permit to place material in the emergency spillway or otherwise cause it to cease to function properly, as this may result in a catastrophic failure of the storage basin.

3. Land Application Equipment Minimum Requirements
    (a) Spray application equipment shall minimize the formation of aerosols.
    (b) Equipment shall be calibrated at least once per calendar year to ensure even distribution of wastewater.

4. Land Application Field(s) Minimum Requirements
    (a) No land application shall occur when the soil or ground is frosted, frozen, snow covered, or saturated. Daily observation of fields is required when land applying. Application activities shall cease if these conditions occur.

(b) There shall be no application during a precipitation event or if a precipitation event likely to create runoff is forecasted to occur within 24 hours of a planned application.
(c) Public Access Restrictions; this permit does not authorize application of wastewater to public use areas.
(d) If land application sites listed in this permit are also included as land application sites in another permit, the wastewater and sludge applications from all sources shall be included in the application rates in the facility description. Records of all sources must be kept for all permits.
(e) Grazing and Harvesting Deferment pursuant to 10 CSR 20-8.200(6)(E).
  (1) May 1 to October 31, the minimum grazing or forage harvest deferment shall be fourteen (14) days from application;
  (2) November 1 to April 30, the minimum grazing or forage harvest deferment shall be thirty (30) days from application;
  (3) If deferment period spans two timeframes, the minimum grazing or forage harvest deferment shall be thirty (30) days from most recent application.
  (4) Lactating dairy animal grazing is generally not recommended for application areas unless there has been a much longer deferment period.
(f) Land application shall occur only during daylight hours unless night time irrigation is necessary and the Water Protection Program has approved a nighttime irrigation plan.
(g) Land application fields shall be checked daily during land application for runoff.
(h) Sites utilizing spray irrigation shall monitor for the drifting of spray across property lines. Spray drift is not permissible.
(i) Setback distances from sensitive features per 10 CSR 20-8.200(6)(B). There shall be no land application within:
  (1) The 10 year floodplain;
  (2) 50 feet inside of the property line, public road, or drainage ditch;
  (3) 100 feet of any classified or unclassified gaining perennial or intermittent stream, any wetland, or any public or privately owned pond or lake;
  (4) 150 feet of any dwelling, residence, public building, or public use area (excluding roadways);
  (5) 300 feet of any potable water supply well not located on the property, adequate protections shall be implemented and maintained for any potable water supply well located within the application area;
  (6) 300 feet from any sinkhole, losing stream, or any other physiographic structure with a conduit to groundwater;

5. Application Rate(s) and Loading
(a) This permit does not authorize application of materials in concentrations known to cause, or having the potential to cause, phytotoxicity in plants per 10 CSR 20-6.015(4)1. If plant stress is observed, the facility may need to reduce application of wastewaters. If phytotoxicity is observed, the facility shall cease land application activities and evaluate the applied substances to determine the cause of phytotoxicity.
(b) The application rate shall not exceed any design hydraulic loading rate listed in the facility description.
(c) Runoff and ponding is prohibited.
(d) This permit does not authorize land disposal or the application of hazardous waste.
(e) The facility must maintain a record of all fertilizer products applied to fields; even exempted products, to determine total nutrient loading.
(f) The fertilizer recommendation shall be based on all of the following:
  (1) The nutrient recommendation (nitrogen or phosphorus) for each crop. Recommendations can be found in University of Missouri Extension Guide EQ202 Crop/Nutrient Considerations for Biosolids or from publications by other land grant universities in adjoining states,
  (2) Realistic yield goal for each crop. Yield goals should be based on actual crop yield records from multiple years for each field. Good judgment should be used to counteract unusually high or low yields. If a field's yield history is not available the USDA county wide average or other approved source may be used, and
  (3) The most recent soil test.

6. Record Keeping. The following record keeping shall occur, be maintained for at least five years, be made available to the Department upon request, and shall be submitted with the application for renewal.
(a) Daily land application log showing, at a minimum: date(s) of application, field identified, acres used, volume applied, weather condition (sunny, overcast, air temperature, etc), soil moisture condition, days since last precipitation event, and application method;
(b) Monthly visual storage structure inspections (if applicable);
(c) Equipment inspections and calibrations;
(d) Land application field inspections, including runoff, saturation, and ponding;
(e) Record of maintenance and repairs;
(f) Description of any unusual operating conditions encountered, narrative summary of any problems or deficiencies identified, corrective action taken, or improvements planned;
(g) The number of days the storage structure discharged during the year, the discharge flow, reason the discharge occurred, and effluent analysis performed including analytical result laboratory pages and any clean-up actions taken.
(h) Annual samples for each wastewater source shall be obtained and submitted to the department with the application for renewal materials.

The samples required shall contain all parameters listed in the table above and any other parameters sampled. The submission must include the date of sampling and have the wastewater identified. Submission of laboratory results sheets will likely meet this requirement.

(i) To ensure the soil does not exceed the cumulative loading rate, all records shall be maintained from the initial application date and for at least five years after application activities have ceased.

(j) Annual summary for each field used for land application showing: number of days application occurred, crop grown and yield, and total amount of wastewater and/or sludge applied (gallons and/or tons per acre).

E. NOTICE OF RIGHT TO APPEAL

If you were adversely affected by this decision, you may be entitled to pursue an appeal before the administrative hearing commission (AHC) pursuant to 621.250 and 644.051.6 RSMo. To appeal, you must file a petition with the AHC within thirty days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed; if it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the AHC. Any appeal should be directed to:

Administrative Hearing Commission; U.S. Post Office Building, Third Floor
131 West High Street, P.O. Box 1557; Jefferson City, MO 65102-1557
Phone: 573-751-2422’ Fax: 573-751-5018; Website: https://ahc.mo.gov

MISSOURI DEPARTMENT OF NATURAL RESOURCES
STATEMENT OF BASIS
MO-0113671
LANDMARK MANUFACTURING CORPORATION

This Statement of Basis (Statement) gives pertinent information regarding modification(s) to the above listed operating permit. A Statement is not an enforceable part of a Missouri State Operating Permit.

Part I – Facility Information

Outfall #005 was removed.

Part II – Modification Rationale

This operating permit is hereby modified to reflect the removal of outfall #005 and a change in inspection frequency from weekly to monthly per special condition #2(d). It was determined that outfall #005 does not discharge but this stormwater area flows to the basin serving outfall #002 therefore was already monitored. No other changes were made at this time; other than a review, and check for typographical errors and pagination.

Part III – 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. A PN is required because the inspection frequency is decreasing.

PUBLIC NOTICE:
The Department shall give public notice that a draft permit has been prepared and its issuance is pending. Additionally, public notice will be issued if a public hearing is to be held because of a significant degree of interest in and water quality concerns related to a draft permit. No public notice is required when a request for a permit modification or termination is denied; however, the requester and permittee must be notified of the denial in writing. The Department must issue public notice of a pending operating permit or of a new or reissued statewide general permit. The public comment period is the length of time not less than 30 days following the date of the public notice which interested persons may submit written comments about the proposed permit. For persons wanting to submit comments regarding this proposed operating permit, then please refer to the Public Notice page located at the front of this draft operating permit. The Public Notice page gives direction on how and where to submit appropriate comments.

✓ The Public Notice period for this operating permit starts November 11, 2022 and ends December 12, 2022.

DATE OF STATEMENT OF BASIS: NOVEMBER 4, 2022

COMPLETED BY:
PAM HACKLER, ENVIRONMENTAL ANALYST SCIENTIST
MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM
OPERATING PERMITS SECTION - INDUSTRIAL UNIT
(573) 526-3386
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MISSOURI DEPARTMENT OF NATURAL RESOURCES
FACT SHEET
FOR THE PURPOSE OF RENEWAL OF
MO-0113671
LANDMARK MANUFACTURING CORPORATION

The Federal Water Pollution Control Act (Clean Water Act (CWA) §402 Public Law 92-500 as amended) established the National Pollutant 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 (§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 644 RSMo as amended). MSOPs may also cover underground injection, non-discharging facilities, and land application facilities. Permits 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 applicable regulations, rationale for the development of limitations and conditions, and the public participation process for the Missouri State Operating Permit (MSOP or permit) listed below. A factsheet is not an enforceable part of a permit.

PART I. FACILITY INFORMATION

Facility Type: Industrial: Categorical; >1 MGD, no-discharge
SIC Code(s): 3465
NAICS Code(s): 336370
Application Date: 06/17/2021
Expiration Date: 09/30/2021
Last Inspection: 11/20/2017

FACILITY DESCRIPTION:
Light manufacturing: stamping, welding, steel processing, aluminum processing, corrosion protection dip.

Items listed in the facility (or outfall) description, applicable to the operation, maintenance, control, and resultant effluent quality are required to be enumerated in the facility description. The facility description ensures the facility continues to operate the wastewater (or stormwater) controls listed in the permit to preserve and maintain the effluent quality pursuant to 40 CFR 122.21(e). Any planned changes to the facility (which changes the facility or outfall description) are required to be reported to the Department pursuant to 40 CFR 122.41(l)(1)(ii). If the facility does not or cannot use all of their disclosed treatment devices, this is considered bypassing pursuant to 40 CFR 122.41(m) in the case of wastewater, and BMP disruption in the case of stormwater.

PERMITTED FEATURES TABLE:

OUTFALL	AVERAGE FLOW	DESIGN FLOW	TREATMENT LEVEL	EFFLUENT TYPE
#001	5903 gpd	5903 gpd	settling, retention, land application of wastewater	domestic wastewater
#002	0.6 MGD	0.6 MGD	settling, retention, land application of wastewater	industrial wastewater
#003	n/a stormwater	n/a stormwater	BMPs, stormwater basin	stormwater from plant proper area, south side of Quick Ave.
#004	n/a	n/a	absorption	land application field - sprinklers
#005	unknown	unknown	unknown	stormwater; added 2022 permit, north side of Quick Ave., lay down scrap area removed at 2022 mod, this area flows to basin serving outfall #002

FACILITY PERFORMANCE HISTORY & COMMENTS:
The electronic discharge monitoring reports were reviewed; several numeric violations were noted. The 2015 and the 2017 facility inspections showed several areas of non-compliance. In 2017, the facility corrected the berm deficiencies of the wastewater basin. According to the Daviess County assessor, the facility owns the portion of the property on the north side of the road. This contains a scrap area or lay-down area as visible from satellite imagery. This area requires a stormwater outfall; this is a new outfall designated

as outfall #005. According to the hypsography for this area, the stormwater will flow from east to west. It is the responsibility of the facility to add this outfall to the SWPPP as soon as possible.

The addition of this outfall and the contaminants of concern are similar to what are identified at outfall #003. Outfall #005 was placed in a general location; the facility will decide exactly where stormwater leaves this area and provide the exact UTM coordinates at the next renewal.

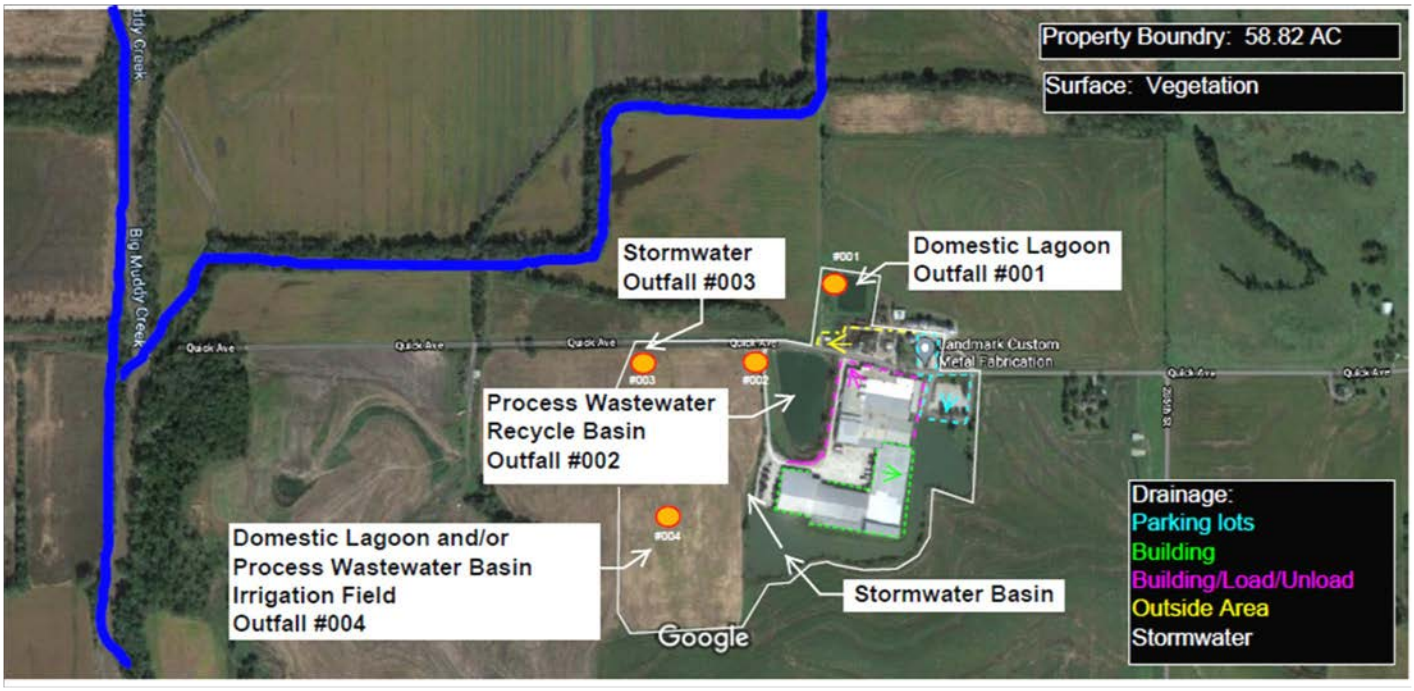
CONTINUING AUTHORITY:
Pursuant to 10 CSR 20-6.010(2)(A) and (E), the Department has received the appropriate continuing authority authorized signature from the facility. The Missouri Secretary of State continuing authority charter number for this facility is 00290930; this number was verified by the permit writer to be associated with the facility.

Pursuant to 10 CSR 20-6.010(2)(B)4, this facility is a Level 4 Authority.

- ✓ Pursuant to 10 CSR 20-6.010(2)(D), the facility indicated the closest collection system was greater than 2000 feet from the property line per 10 CSR 20-6.010(2)(C)1.

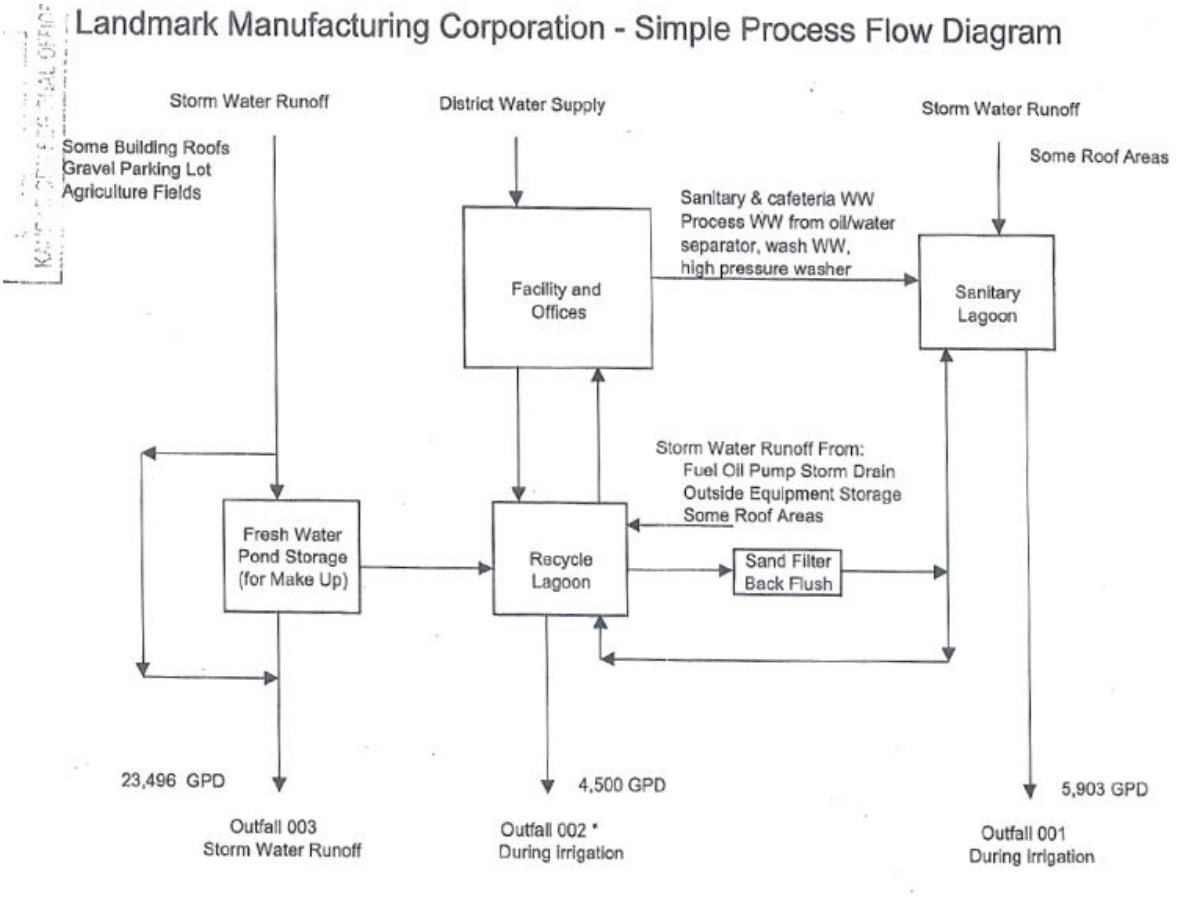
OTHER ENVIRONMENTAL PERMITS:
In accordance with 40 CFR 122.21(f)(6), the facility reported other environmental permits currently held by this facility. This facility has an Air Part 70 OP2009-24 permit.

FACILITY MAP:

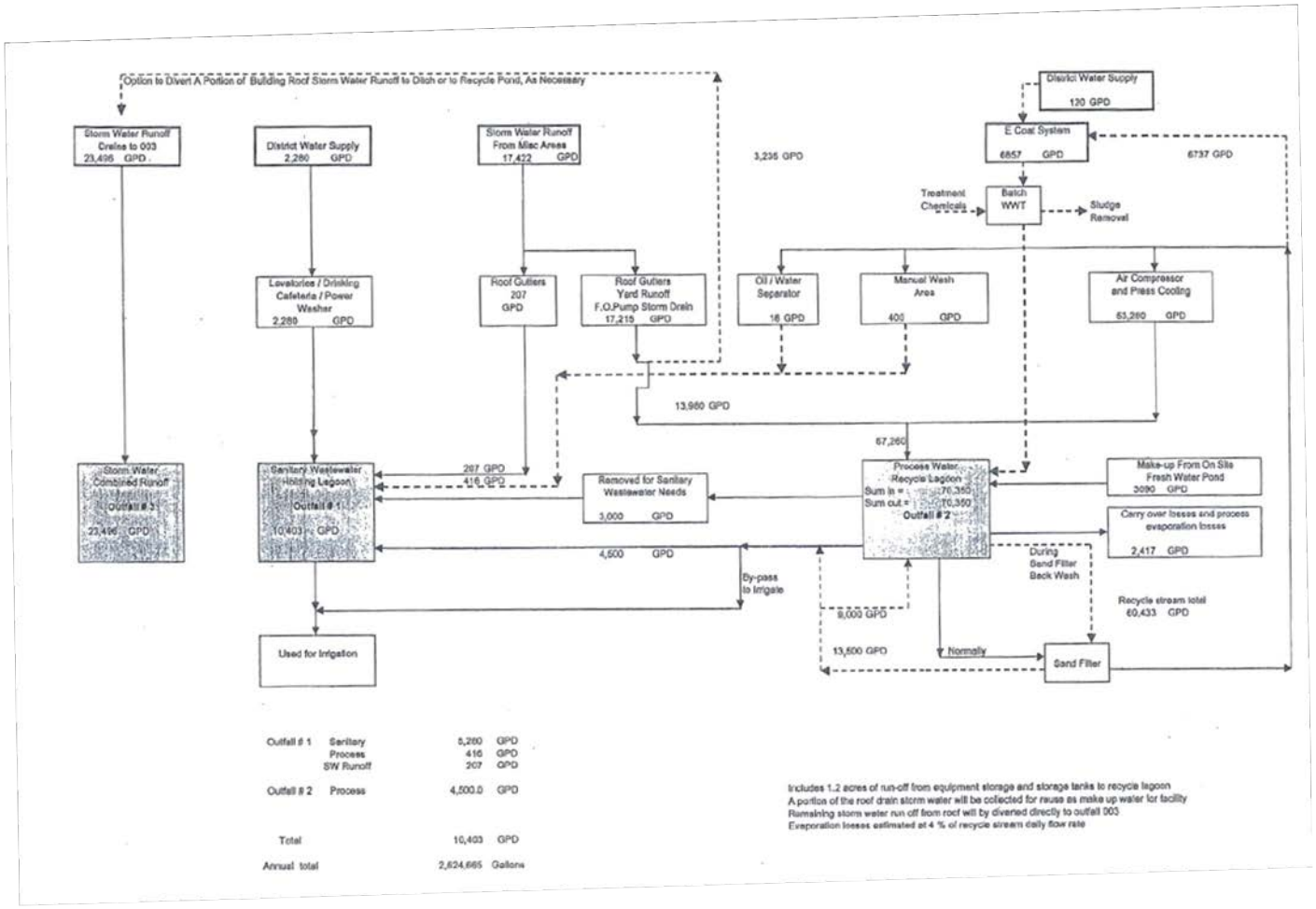


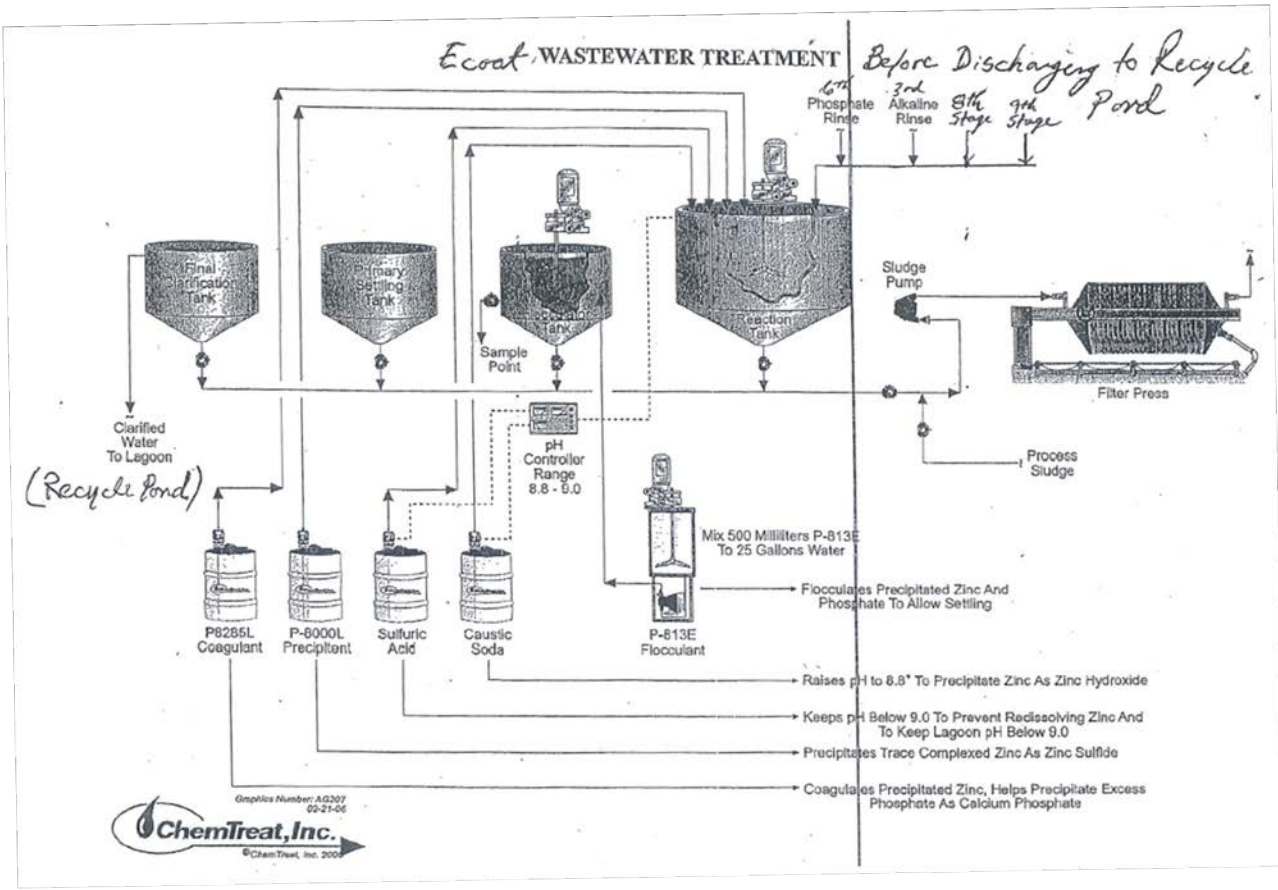
OUTFALL MAP:

WATER BALANCE DIAGRAMS:



* - Normally, Outfall 002 is not needed for irrigation. Liquid that is not recycled is sent to the Sanitary Lagoon prior to irrigation.


Option to Divert A Portion of Building Roof Storm Water Runoff to Ditch or to Recycle Pond, As Necessary
Storm Water Runoff Creine to 003 23,496 GPD
District Water Supply 2,280 GPD
Storm Water Runoff From Misc Areas 17,422 GPD
District Water Supply 120 GPD
E Coat System 6857 GPD
3,235 GPD
6737 GPD
Treatment Chemicals
Batch WWT
Sludge Removal
Lavatories / Drinking Cafeteria / Power Washer 2,280 GPD
Roof Gutters 207 GPD
Roof Gutters Yard Runoff F.O.Pump Storm Drain 17,215 GPD
Oil / Water Separator 18 GPD
Manual Wash Area 400 GPD
Air Compressor and Press Cooling 63,280 GPD
13,960 GPD
67,260
Storm Water Combined Runoff Outfall # 2 23,496 GPD
Sanitary Wastewater Holding Lagoon Outfall # 1 10,403 GPD
207 GPD
416 GPD
Removed for Sanitary Wastewater Needs 3,000 GPD
Process Water Recycle Lagoon Sum in = 70,350 Sum out = 70,350 Outfall # 2
Make-up From On Site Fresh Water Pond 3090 GPD
Carry over losses and process evaporation losses 2,417 GPD
4,500 GPD
By-pass to Irrigate
During Sand Filter Back Wash
Recycle stream total 60,433 GPD
8,000 GPD
13,500 GPD
Normally
Sand Filter
Used for Irrigation
Outfall # 1 Sanitary 5,280 GPD
Process 416 GPD
SW Runoff 207 GPD
Outfall # 2 Process 4,500.0 GPD
Total 10,403 GPD
Annual total 2,624,665 Gallons
Includes 1.2 acres of run-off from equipment storage and storage tanks to recycle lagoon
A portion of the roof drain storm water will be collected for reuse as make up water for facility
Remaining storm water run off from roof will by diverted directly to outfall 003
Evaporation losses estimated at 4 % of recycle stream daily flow rate


Ecoat WASTEWATER TREATMENT Before Discharging to Recycle Pond
6th Phosphate Rinse
3rd Alkaline Rinse
8th Stage
9th Stage
Final Clarification Tank
Primary Settling Tank
Reaction Tank
Sample Point
Sludge Pump
Filter Press
Clarified Water To Lagoon
(Recycle Pond)
pH Controller Range 8.8 - 9.0
Process Sludge
Mix 500 Milliliters P-813E To 25 Gallons Water
Flocculates Precipitated Zinc And Phosphate To Allow Settling
P8285L Coagulant
P-6000L Precipitant
Sulfuric Acid
Caustic Soda
P-813E Flocculant
Raises pH to 8.8* To Precipitate Zinc As Zinc Hydroxide
Keeps pH Below 9.0 To Prevent Redissolving Zinc And To Keep Lagoon pH Below 9.0
Precipitates Trace Complexed Zinc As Zinc Sulfide
Coagulates Precipitated Zinc, Helps Precipitate Excess Phosphate As Calcium Phosphate
Graphics Number: AG207 02-21-06
ChemTreat, Inc.
©ChemTreat, Inc. 2006

PART II. RECEIVING WATERBODY INFORMATION

NEARBY WATERBODY TABLE:

OUTFALL	WATERBODY NAME	CLASS	WBID	DESIGNATED USES	DISTANCE TO SEGMENT	12-DIGIT HUC
All	Tributary to 100K Extent-Remaining Stream	n/a	n/a	n/a	0.0 mi	102801011104: Big Muddy Creek
	100K Extent-Remaining Stream	C	3960	GEN, HHP, IRR, LWW, SCR, WBC-B, WWH (ALP)	~0.2 mi	

Classes are representations of hydrologic flow volume or lake basin size as defined in 10 CSR 20-7.031(1)(F). L1: Lakes with drinking water supply - wastewater discharges are not permitted to occur to L1 watersheds per 10 CSR 20-7.015(3)(C); L2: major reservoirs; L3: all other public and private lakes; P: permanent streams; C: streams which may cease flow in dry periods but maintain pools supporting aquatic life; E: streams which do not maintain surface flow; and W: wetlands. Losing streams are defined in 10 CSR 20-7.031(1)(O) and are designated on the losing stream dataset or determined by the Department to lose 30% or more of flow to the subsurface.

WBID: Waterbody Identification Number: Missouri Use Designation Dataset per 10 CSR 20-7.031(1)(Q) and (S) as 100K Extant-Remaining Streams or newer; 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; New C streams described on the dataset per 10 CSR 20-7.031(2)(A)3 as 100K Extent Remaining Streams.

HUC: Hydrologic Unit Code https://water.usgs.gov/GIS/huc.html

Designated Uses:
10 CSR 20-7.031(1)(C)1: **ALP** – Aquatic Life Protection (formerly AQL); current uses are defined to ensure the protection and propagation of fish shellfish and wildlife, 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 ALP effluent limitations in 10 CSR 20-7.031 Table A1-B3 for all habitat designations unless otherwise specified.
10 CSR 20-7.031(1)(C)2: Recreation in and on the water
WBC is 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 not included in WBC-A;
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 and drinking of water;
IRR – irrigation for use on crops utilized for human or livestock consumption, includes aquifers per 10 CSR 20-7.031(6)(A);
LWW – Livestock and Wildlife Watering (current narrative use is defined as LWP = Livestock and Wildlife Protection), includes aquifers per 10 CSR 20-7.031(6)(A);
DWS – Drinking Water Supply, includes aquifers per 10 CSR 20-7.031(6)(A);
IND – industrial water supply
10 CSR 20-7.031(1)(C)8 to 11: Wetlands (10 CSR 20-7.031 Tables A1-B3) do 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 20-7.015(7) and 10 CSR 20-7.031(6): **GRW** = Groundwater

Other Applicable Criteria:
10 CSR 20-7.031(4): **GEN** – general criteria
10 CSR 20-7.031(5)(N)6: **NNC** – lake numeric nutrient criteria apply
Water Quality Standards Search https://apps5.mo.gov/mocwis_public/waterQualityStandardsSearch.do

WATERS OF THE STATE DESIGNATIONS:
Waters of the state are divided into seven categories per 10 CSR 20-7.015(1)(B)1 through 7. The applicable water of the state category is listed below. Missouri's technology-based effluent regulations are found in [10 CSR 20-7.015] and are implemented in 10 CSR 20-7.015(2) through (8). When implementing technology regulations, considerations are made for the facility type, discharge type, and category of waters of the state. Stormwater discharges and land application sites are not subject to limitations found in 10 CSR 20-7.015. Effluent limitation derivations are discussed in PART IV: EFFLUENTS LIMITS DETERMINATIONS.
✓ All other waters; identified at 10 CSR 20-7.015(B)7 and 10 CSR 20-7.015(8)

EXISTING WATER QUALITY & IMPAIRMENTS:
The receiving waterbody(s) segment(s), upstream, and downstream confluence water quality was reviewed. The USGS https://waterdata.usgs.gov/nwis/sw or the Department's quality data database was reviewed. https://apps5.mo.gov/mocwis_public/wqa/waterbodySearch.do and https://apps5.mo.gov/wqa/ The Department's quality data database was reviewed. https://apps5.mo.gov/mocwis_public/wqa/waterbodySearch.do and https://apps5.mo.gov/wqa/ Impaired waterbodies which may be impacted by discharges from this facility were determined. Impairments include waterbodies on the 305(b) or 303(d) list and those waterbodies or watersheds under a TMDL. https://dnr.mo.gov/water/what-were-doing/water-planning/quality-standards-impaired-waters-total-maximum-daily-loads/tmdls 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.

https://dnr.mo.gov/water/what-were-doing/water-planning/quality-standards-impaired-waters-total-maximum-daily-loads/impaired-waters 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. A TMDL is a calculation of the maximum amount of a given pollutant a water body 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 for that watershed may be developed. The TMDL shall include the WLA calculation.

- ✓ This facility is located at the top of the watershed therefore no upstream is present at this facility.
- ✓ The Big Muddy Creek watershed, serving WBID #0436, is associated with the 2002 Big Muddy Creek EPA approved TMDL for sediment. This facility is not considered to be a source of the above listed pollutant(s) or considered to contribute to the impairment because this facility discharges only stormwater.

WATERBODY MONITORING REQUIREMENTS:

- ✓ No waterbody monitoring requirements are recommended at this time.

WATERBODY MIXING CONSIDERATIONS:

For all wastewater outfalls, mixing zone and zone of initial dilution are not allowed per 10 CSR 20-7.031(5)(A)4.B.(I)(a) and (b), as the base stream flow does not provide dilution to the effluent. For information how this regulation is used in determining effluent limits with or without mixing, see WASTELOAD ALLOCATION in Part III. If the base stream flow is above 0.1 cfs, mixing may be applied if 1) zones of passage are present, 2) mixing velocities are sufficient and stream bank configuration allows, 3) the aquatic life support system is maintained, 4) mixing zones do not overlap, 5) there are no drinking water intakes in the vicinity downstream, 6) the stream or lake has available pollutant loading to be allocated, and 7) downstream uses are protected. If mixing was not allowed in this permit, the facility may submit information, such as modeling, as to why mixing should be afforded to the outfall.

PART III. RATIONALE AND DERIVATION OF PERMIT CONDITIONS

ANTIBACKSLIDING:

Federal Regulations [CWA §303(d)(4); CWA §402(c); 40 CFR Part 122.44(l)] 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 reissuance conform to the anti-backsliding provisions of CWA §402(o), and 40 CFR 122.44.
  - ✓ 40 CFR 122.44(l)(2)(i); material and substantial alterations or additions to the permitted facility occurred after permit issuance justify the application of a less stringent effluent limitation.
    - No backsliding provisions are justified under this criteria.
  - ✓ 40 CFR 122.44(l)(i)(B)(1); 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.
    - Settleable solids was removed from outfall #003. The facility reported all non-detections. This permit continues the TSS requirement, thus this permit continues to limit solids appropriately for the stormwater at this site.
    - Zinc monitoring at outfall #003 was removed; the facility reported between non-detect and 17 µg/L in the last permit term. This parameter does not have RP. Given the data, monitoring is removed. Metals monitoring for three other metals parameters are continued. BMPs at this site applied to the other three metals are the same for zinc, therefore monitoring of zinc is no longer required.
  - ✓ 40 CFR 122.44(l)(i)(B)(2); the Department determined technical mistakes or mistaken interpretations of law were made in issuing the permit under CWA §402(a)(1)(b).
    - This permit does not require submitting precipitation data to the Department. This data should still be reviewed by the facility daily to determine best management practices and appropriate times of land application activities. This data no longer needs to be submitted to the Department as permitting decisions are based on the submitted precipitation data, and these data are available online.
    - Monitoring of total nitrogen and total phosphorus was removed for the emergency discharge provisions for basins #001 and #002. While nutrients are present in the domestic basin, nutrients action on the environment occur over a long term. Emergency discharges while discharging nutrients, have little positive correlation with negative long-term environmental impacts, such as increase in total chloroform or visual general criteria violations that long-term nutrient exposure can produce.
    - Standard conditions Part III was included with the last permit. However, standard conditions Part III have been revised to only include domestic sludge; it does not include industrial sludge at this time. This facility has not indicated they will be performing land application of domestic solids therefore, standard conditions part III is no longer required. The presscake is not permitted for land application either.

ANTIDEGRADATION REVIEW:
Process water discharges with new, altered, or expanding flows, 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 https://dnr.mo.gov/document-search/antidegradation-implementation-procedure Per [10 CSR 20-7.015(4)(A)], new discharges to losing streams shall be permitted only after other alternatives including land application, discharges to a gaining stream, or 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 has not submitted information proposing expanded or altered process water discharge; no further degradation proposed therefore no further review necessary.

BEST MANAGEMENT PRACTICES:
Minimum site-wide best management practices are established in this permit to ensure all facilities are managing their sites equally to protect waters of the state from certain activities which could cause negative effects in receiving water bodies. While not all sites require a SWPPP because the SIC codes are specifically exempted in 40 CFR 122.26(b)(14), these best management practices are not specifically included for stormwater purposes. These practices are minimum requirements for all industrial sites to protect waters of the state. If the minimum best management practices are not followed, the facility may violate general criteria [10 CSR 20-7.031(4)]. Statutes are applicable to all permitted facilities in the state, therefore pollutants cannot be released unless in accordance with 644.011 and 644.016 (17) RSMo.

CLOSURE:
To properly decontaminate and close a wastewater basin, the facility must draft a complete closure plan, and include the Closure Request Form #2512 https://dnr.mo.gov/document-search/facility-closure-request-form-mo-780-2512 The publication, Wastewater Treatment Plant Closure - PUB2568 found at https://dnr.mo.gov/print/document-search/pub2568 may be helpful to develop the closure plan. The regional office will then approve the closure plan, and provide authorization to begin the work. The regional office contact information can be found here: https://dnr.mo.gov/about-us/division-environmental-quality/regional-office

COST ANALYSIS FOR COMPLIANCE (CAFCOM):
Pursuant to 644.145 RSMo, when incorporating a new requirement for discharges from publicly owned facilities, or when enforcing provisions of this chapter or the CWA, pertaining to any portion of a publicly owned facility, the Department shall make a finding of affordability on the costs to be incurred and the impact of any rate changes on ratepayers upon which to base such permits and decisions, to the extent allowable under this chapter and the CWA. This process is completed through a CAFCom. Permits not including new requirements may be deemed affordable.

✓ The Department is not required to complete a cost analysis for compliance because the facility is not publicly owned.

CHANGES IN DISCHARGES OF TOXIC POLLUTANT:
This special condition reiterates the federal rules found in 40 CFR 122.44(f) for technology treatments and 122.42(a)(1) for all other toxic substances. In these rules, the facility is required to report changes in amounts of toxic substances discharged. Toxic substances are defined in 40 CFR 122.2 as "…any pollutant listed as toxic under section 307(a)(1)" or, in the case of "sludge use or disposal practices," any pollutant identified in regulations implementing section 405(d) of the CWA." Section 307 of the clean water act then refers to those parameters listed in 40 CFR 401.15 and any other toxic parameter the Department determines is applicable for reporting under these rules in the permit. The facility should also consider any other toxic pollutant in the discharge as reportable under this condition and must report all increases to the Department as soon as discovered in the effluent. The Department may open the permit to implement any required effluent limits pursuant to CWA §402(k) where sufficient data was not supplied within the application but was supplied at a later date by either the permittee or other resource determined to be representative of the discharge, such as sampling by Department personnel.

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

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

DISCHARGE MONITORING REPORTING – ELECTRONIC (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 requiring electronic data reporting. To comply with the federal rule, the Department is requiring all facilities to submit discharge monitoring data and reports online. To review historic data, the Department's database has a publically facing search engine, available at https://apps5.mo.gov/mocwis_public/dmrDisclaimer.do

Registration and other information regarding MoGEM can be found at https://dnr.mo.gov/mogem. Information about the eDMR system can be found at https://dnr.mo.gov/env/wpp/edmr.htm.The first user shall register as an Organization Official and the association to the facility must be approved by the Department. To access the eDMR system, use: https://apps5.mo.gov/mogems/welcome.action For assistance using the eDMR system, contact edmr@dnr.mo.gov or call 855-789-3889 or 573-526-2082. To assist the facility in entering data into the eDMR system, the permit describes limit sets designators in each table in Part A of the permit. Facility personnel will use these identifiers to ensure data entry is being completed appropriately. For example, M for monthly, Q for quarterly, A for annual, and others as identified.

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 facility must first submit an eDMR Waiver Request form available on the Department's web page. A request must be made for each operating permit. An approved waiver is not 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.

✓ This facility has not been granted a waiver, nor would this facility qualify for a waiver.

DOMESTIC WASTEWATER, SLUDGE, AND BIOSOLIDS:

Domestic wastewater is defined as wastewater originating primarily from the sanitary conveyances of bathrooms and kitchens. Domestic wastewater excludes stormwater, wash water, animal waste, process and ancillary wastewater.

✓ Applicable; this facility uses a land application system for domestic wastewater.

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. Biosolids are solid materials resulting from domestic wastewater treatment meeting federal and state criteria for productive use (i.e. fertilizer) and after having pathogens removed.

Additional information: http://extension.missouri.edu/main/DisplayCategory.aspx?C=74 (WQ422 through WQ449).

✓ Applicable, biosolids are removed by contract hauler.

EFFLUENT LIMITATIONS:

Two general types of effluent limitations, technology-based effluent limits (TBELs) and water quality based effluent limits (WQBELs) are reviewed. Permits are required to establish the most stringent or most protective limit. If the TBEL or WQBEL does not provide adequate protection for the receiving water, then the other must be used per 10 CSR 20-7.015(9)(A) or 40 CFR 122.44(b)(1). See WASTELOAD ALLOCATION below which describes how WQBEL wasteload allowances are established under the permit. Effluent limitations derived and established for this permit are based on current operations of the facility. Any flow through the outfall is considered a discharge and must be sampled and reported as provided in the permit. Daily maximums and monthly averages are required per 40 CFR 122.45(d)(1) for continuous discharges (not from a POTW).

EMERGENCY DISCHARGE:

For non-discharging permits, some permits may allow a small amount of wastewater discharge under very specific circumstances.

✓ Applicable, this permit allows intermittent qualifying emergency discharges within the confines of the requirements stipulated in the permit.

✓ The catastrophic (1 in 25 year storm event return frequency) and chronic (1 in 10 year storm event return frequency) events were determined for this facility's location using https://hdsc.nws.noaa.gov/hdsc/pfds/pfds_map_cont.html?bkmrk=mo The catastrophic event is occurring at or under 24 hours, and the chronic event is occurring or continuing for more than 24 hours.

✓ The permit stipulates the maximum timeframe for emergency discharges for a singular event at 4 days, or 96 hours. Chronic water quality criteria for most parameters are determined to be for a 4-day exposure; most acute water quality standards are based on 1 hour of exposure. It is expected that acute criteria may be exceeded during emergency discharge events, but at the time of the emergency discharge, receiving streams and nearby waterbodies will also be swollen with stormwater, which will temper the pollutants released from the emergency discharge. The permit limits the discharge to 4 days because the effluent produced from an emergency discharge has not been evaluated for chronic water quality criteria. To allow a discharge to occur over 96 hours is to potentially cause chronic harm to the organisms in the receiving stream as storm events typically do not last for 96 hours. If two distinct qualifying events cause the feature to discharge for a continuous time, the discharge may be separated for the purposes of reporting time, and two (or more) sampling sets are required.

FEDERAL EFFLUENT LIMITATION GUIDELINES:

Effluent Limitation Guidelines, or ELGs, are found at 40 CFR 400-499. https://www.ecfr.gov/current/title-40/chapter-I/subchapter-N 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. Effluent guidelines are not always established for every pollutant present in a point

source discharge. In many instances, EPA promulgates effluent guidelines for an indicator pollutant. Industrial facilities complying with the effluent guidelines for the indicator pollutant will also control other pollutants (e.g. pollutants with a similar chemical structure). For example, EPA may choose to regulate only one of several metals present in the effluent from an industrial category, and compliance with the effluent guidelines will ensure similar metals present in the discharge are adequately controlled. All are technology based limitations which must be met by the applicable facility at all times. Should Reasonable Potential be established for any particular parameter, and water-quality derived effluent limits are more protective of the receiving water's quality, the WQS will be used as the limiting factor in accordance with 40 CFR 122.44(d) and 10 CSR 20-7.015(9)(A).

- ✓ The facility has two associated ELGs (40 CFR 413 and 421) but does not discharge wastewater to waters of the state; stormwater discharges are not addressed by the ELGs. This is a land application permit therefore the ELG is not applied.

GENERAL CRITERIA CONSIDERATIONS:

In accordance with 40 CFR 122.44(d)(1), effluent limitations shall be placed into permits for pollutants determined to cause, have reasonable potential to cause, or to contribute to, an excursion above any water quality standard, including narrative water quality criteria. In order to comply with this regulation, the permit writer has completed a reasonable potential determination on whether discharges have reasonable potential to cause, or contribute to an excursion of the general criteria listed in 10 CSR 20-7.031(4). In instances where reasonable potential exists, the permit includes limitations to address the reasonable potential. In discharges where reasonable potential does not exist, the permit may include monitoring to later determine the discharge's potential to impact the narrative criteria. Additionally, 644.076.1 RSMo, as well as Part I §D – Administrative Requirements of Standard Conditions included in this permit state it shall be unlawful for any person to cause or allow any discharge of water contaminants from any water contaminant or point source located in Missouri in violation of §§644.006 to 644.141 of the Missouri Clean Water Law or any standard, rule, or regulation promulgated by the commission. See Part IV for specific determinations.

GROUNDWATER MONITORING:

Groundwater is a water of the state according to 644.016(27) RSMo, 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.

LAND APPLICATION:

Land application, or surficial dispersion of wastewater and/or sludge, is performed by facilities as an alternative to discharging. Authority to regulate these activities is pursuant to 644.026 RSMo. The Department implements requirements for these types of operations pursuant to 10 CSR 20-6.015(4)(A)1 which instructs the Department to develop permit conditions containing limitations, monitoring, reporting, and other requirements to protect soils, crops, surface waters, groundwater, public health, and the environment.

- ✓ Applicable, the facility shall comply with all applicable land application requirements listed in this permit. These requirements incorporated into this permit pursuant to 10 CSR 20-6.015(4) ensure appropriate minimum operational controls of the no-discharge land application systems. When operated correctly these permit conditions will prevent unauthorized and illicit discharges to waters of the state; and will protect soils, vegetation, surface water, groundwater, and public health. These requirements also ensure application activities fall within a productive use demonstration (agricultural use), prevent plant phytotoxicity, and prevent and protect soils loading of specified pollutants. The minimum requirements established in the permit are to meet, not only DNRs requirements, but to also ensure the exemptions for agricultural stormwater runoff in 10 CSR 20-6.200(1)(B)5 or 10 CSR 20-6.300(2)(D)2 continue to be met. When the facility follows all permit requirements, stormwater discharge monitoring requirements from land application sites found at 10 CSR 20-6.200(2)(B)3.B. are excused. The BMPs prescribed in the permit, such as not applying to saturated or frozen soil, or applying outside the setbacks, are specific BMPs appropriate for wastewater and stormwater management from land application areas.
- ✓ The facility disclosed they apply water using an in-situ spray sprinkler irrigation piped into a field.
- ✓ Pursuant to 10 CSR 20-8.200(6) Surface Irrigation of Wastewater. (B) Wetted Application Area. The wetted application area is the land area that is normally wetted by wastewater application. The wetted application area must be: 1. Located outside of flood-prone areas having a flood frequency greater than once every 10 years; 2. Established— A. At least one hundred fifty feet (150') from existing dwellings or public use areas, excluding roads or highways; B. At least fifty feet (50') inside the property line; C. At least three hundred feet (300') from any sinkhole, losing stream, or other structure or physiographic feature that may provide direct connection between the ground water table and the surface; D. At least three hundred feet (300') from any existing potable water supply well not located on the property. Adequate protection shall be provided for wells located on the application site; E. One hundred feet (100') to wetlands, ponds, gaining streams (classified or unclassified; perennial or intermittent); and F. If an established vegetated buffer or the wastewater is disinfected, the setbacks established in subsections (A)–(E) above may be decreased if the applicant demonstrates the risk is mitigated. 3. Fenced, or if not fenced, provide in the construction permit application or the facility plan, the— A. Method of disinfection being utilized; B. Suitable barriers in place, or C. Details on how public access is limited and not expected to be present. (C) Preapplication Treatment.

  At a minimum, treatment prior to irrigation shall provide performance equivalent to that obtained from a primary wastewater lagoon cell designed and constructed in accordance with sections (3) and (4) of this rule, except that the lagoon depth may be increased to include wastewater storage in addition to the primary volume.

- ✓ Following is a list of helpful publications; while generally geared to biosolids and domestic sludge, these documents can show operators and facilities specific best management practices which may be important to their own operations.
  - State and EPA Regulations for Domestic Wastewater Sludge and Biosolids https://extension.missouri.edu/publications/eq421
  - Land Application of Septage https://extension.missouri.edu/publications/eq422
  - Standards for Pathogens and Vectors https://extension.missouri.edu/publications/wq424
  - Interpretation of Laboratory Analysis of Samples https://extension2.missouri.edu/wq429
  - Biosolids Glossary of Terms https://extension2.missouri.edu/eq449
- ✓ Operations and Maintenance, and equipment resources:
  - Collection and Storage https://extension2.missouri.edu/eq431
  - Equipment for Off-Site Application https://extension2.missouri.edu/wq432
  - Equipment for On-Site Land Application https://extension2.missouri.edu/wq433
  - Operating Considerations for Equipment https://extension2.missouri.edu/wq434
- ✓ Land application of all pollutants must consider cumulative and average limits based on how the pollutant responds in the soil environment. Limits or monitoring requirements may reflect different monthly calculations based on pollutant behavior.
- ✓ The facility must follow the applicable application loading rates indicated in the permit's facility description and/or special conditions. The facility must follow the applicable loading rates in the permit's facility description for each land application area. This permit dictates the most conservative calculation will be used when determining application rates so that the most abundant pollutant is not over-applied.
- ✓ **Hydraulic Loading Rates** – wastewater must be land applied at rates to allow for proper soil absorption and plant uptake. In accordance with 10 CSR 20-8.200(6)(B), the hydraulic loading rate shall not exceed the soil permeability rate, or result in a discharge of wastewater from the land application field.
- ✓ **Nitrogen Loading Rates** – wastewater application rates should not exceed a nitrogen application rate of 150 pounds total nitrogen per acre per year, and the applied wastewater should not exceed 10 mg/L of nitrate nitrogen as N at any time.
- ✓ Fertilizer recommendations can also be obtained by using one of the following tools:
  - Land Applications Considerations (nutrient requirements for plant growth) https://extension.missouri.edu/publications/eq202
  - Crop/Nutrient Considerations https://extension2.missouri.edu/eq430
  - University of Missouri Nutrient Management Home Page: https://nmplanner.missouri.edu/
  - United States Department of Agriculture (USDA) Natural Resources Conservation Service (NRCS) Nutrient Management technical resources https://www.nrcs.usda.gov/wps/portal/nrcs/detail/national/technical/ecoscience/mnm/?cid=stelprdb1044741
- ✓ **Trace Element Loading Rate** – specific parameters have maximum soil loading rates; limitations are established in this permit to protect sudden phytotoxicity for the short term, future soil use, and overall plant fertility and fecundity over the long term. These requirements are authorized under 10 CSR 20-6.015(4)(A)1. Information used to develop parameter-specific conditions were based on *Design of Land Treatment Systems for Industrial Wastes – Theory and Practice*; by Pal and Overcash (P&O) 1981; and the development document and science-based numeric guidelines pursuant to 40 CFR 503 Subpart B; see also
  - Standards for Metals and Other Trace Substances https://extension.missouri.edu/publications/wq425
  - Activity and Movement of Plant Nutrients and Other Trace Substance https://extension.missouri.edu/publications/wq428
- ✓ Additional citations for specific parameters:
  - Chloride is limited at 125 mg/L to prevent sudden phytotoxicity. (P&O; p. 379)
  - Cobalt is limited at 1 ppm to prevent heavy metal toxicity. (P&O; p. 406)
  - Copper dosing was limited to 10 mg/L per application event to prevent abrupt plant phytotoxicity. (P&O; p. 418)
  - Lead, considered a heavy metal which will show injurious effects at levels above 1 mg/L (P&O; p. 406)
  - Selenium (P&O; P. 384) Selenium does not degrade in soil, water, or sunlight. Selenium can be a plant toxicant and in the form of selenate (SeO_4^{2-}) can be taken up by plants, and bioaccumulate. See also: Hladun, Parker, Tran, and Trumble. *Effects of selenium accumulation on phytotoxicity, herbivory, and pollination ecology in radish (Raphanus sativus L.).* Environmental Pollution 172 (2013) 70-75.
- ✓ Definitions used in the land application section of the permit can be found at 644.016 RSMo, 10 CSR 20-2, and 40 CFR 503.11.
- ✓ This permit does not authorize land disposal or the application of hazardous waste.

LAND DISTURBANCE:

Land disturbance, sometimes called construction activities, are actions which cause disturbance of the root layer or soil; these include clearing, grading, and excavating of the land. 40 CFR 122.26(b)(14) and 10 CSR 20-6.200(3) requires permit coverage for these activities. Coverage is not required for facilities when only providing maintenance of original line and grade, hydraulic capacity, or to continue the original purpose of the facility.

- ✓ Not applicable; this permit does not provide coverage for land disturbance activities. The facility may obtain a separate land disturbance permit (MORA) online at https://dnr.mo.gov/water/business-industry-other-entities/permits-certification-engineering-fees/stormwater/construction-land-disturbance MORA permits do not cover disturbance of contaminated soils, however, site specific permits such as this one can be modified to include appropriate controls for land disturbance of contaminated soils by adding site-specific BMP requirements and additional outfalls.

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. https://dnr.mo.gov/water/business-industry-other-entities/reporting/major-water-users All major water users are required by law to register water use annually (Missouri Revised Statutes Chapter 256.400 Geology, Water Resources and Geodetic Survey Section). https://dnr.mo.gov/document-search/frequently-asked-major-water-user-questions-pub2236/pub2236

✓ It is unknown if this facility falls under the definition of major water; this facility is not registered with the Department. The facility may need to register with the Department. Registration can be completed at this website: https://apps5.mo.gov/MWU/ if necessary.

METALS:
Effluent limitations for total recoverable metals were developed using methods and procedures outlined in the *Technical Support Document For Water Quality-based Toxic Controls* (EPA/505/2-90-001) and *The Metals Translator: Guidance For Calculating a Total Recoverable Permit Limit From a Dissolved Criterion* (EPA 823-B-96-007). "Aquatic Life Protection" in 10 CSR 20-7.031 Tables A1 and A2, as well as general criteria protections in 10 CSR 20-7.031(4) apply to this discharge. The hardness value used for hardness-dependent metals calculations is typically based on the ecoregion's 50th percentile (also known as the median) per 10 CSR 20-7.015(1)(CC), and is reported in the calculations below, unless site specific data was provided. Per a memorandum dated August 6, 2019, the Director has determined permit writers should use the median of the Level III Ecoregion to calculate permit limits, or site specific data if applicable. Additional use criterion (HHP, DWS, GRW, IRR, or LWW) may also be used, as applicable, to determine the most protective effluent limit for the receiving waterbody's class and uses. HHP, DWS, GRW, IRR, or LWW do not take hardness into account.

MODIFICATION REQUESTS:
Facilities have the option to request a permit modification from the Department at any time under RSMo 644.051.9. Requests must be submitted to the Water Protection Program with the appropriate forms and fees paid per 10 CSR 20-6.011. It is recommended facilities contact the permit writer early so the correct forms and fees are submitted, and the modification request can be completed in a timely fashion. Minor modifications, found in 40 CFR 122.63, are processed without the need for a public comment period. Major modifications, those requests not explicitly fitting under 40 CFR 122.63, do require a public notice period. Modifications to permits should be completed when: a new pollutant is found in the discharge; operational or functional changes occur which affect the technology, function, or outcome of treatment; the facility desires alternate numeric benchmarks; or other changes are needed to the permit.

Modifications are not required when utilizing or changing additives in accordance with the publication https://dnr.mo.gov/document-search/additive-usage-wastewater-treatment-facilities-pub2653/pub2653 nor are required when a temporary change or provisional discharge has been authorized by the regional office. While provisional discharges may be authorized by the regional office, they will not be granted for more than the time necessary for the facility to obtain an official modification from the Water Protection Program. Temporary provisional discharges due to weather events or other unforeseen circumstances may or may not necessitate a permit modification. The facility may ask for a Compliance Assistance Visit (CAV) from the regional office to assist in the decision-making process; CAVs are provided free to the permitted entity.

NUTRIENT MONITORING:
Nutrient monitoring is required for facilities characteristically or expected to discharge nutrients (nitrogenous compounds and/or phosphorus) when the design flow is equal to or greater than 0.1 MGD per 10 CSR 20-7.015(9)(D)8. This requirement is applicable to all Missouri waterways.

✓ This is a no-discharge permit therefore not subject to provisions found in 10 CSR 20-7.015 per 10 CSR 20-7.015(1)(C).

Water quality standards per 10 CSR 20-7.031(5)(N) describe nutrient criteria requirements assigned to lakes (which include reservoirs) in Missouri, equal to or greater than 10 acres during normal pool conditions. The Department's Nutrient Criteria Implementation Plan (NCIP) may be reviewed at: https://dnr.mo.gov/document-search/nutrient-criteria-implementation-plan-july-27-2018 Discharges of wastewater in to lakes or lake watersheds designated as L1 (drinking water use) are prohibited per 10 CSR 20-7.015(3)(C).

✓ This is a no-discharge permit therefore not subject to provisions found in 10 CSR 20-7.015 per 10 CSR 20-7.015(1)(C).

OIL/WATER SEPARATORS:
Oil water separator (OWS) tank systems are frequently found at industrial sites where process water and stormwater may contain oils and greases, oily wastewaters, or other immiscible liquids requiring separation. Food industry discharges typically require pretreatment prior to discharge to municipally owned treatment works. Per 10 CSR 26-2.010(2)(B), all oil water separator tanks must be operated according best management practices and USTs may be authorized in NPDES permits per 10 CSR 26-2.010(2) or otherwise may be regulated as a petroleum tank. Sludge generated by OWS is a waste pursuant to 10 CSR 25-11.279 requiring specific management standards pursuant to self-implementing regulations of 40 CFR Part 279.

✓ Not applicable; the facility has not disclosed the use of any oil water separators they wish to include under the NPDES permit at this facility, therefore oil water separator tanks are not authorized by this permit, but may be utilized.

OPERATOR CERTIFICATION REQUIREMENTS:
Operators or supervisors of operations at regulated domestic wastewater treatment facilities shall be certified in accordance with 10 CSR 20-9 and any other applicable state law or regulation.

✓ Not applicable; this facility is not owned or operated by a municipality, public sewer district, county, public water supply district, or private sewer company regulated by the Public Service Commission, or operated by a state or federal agency. Private entities are exempted from the population equivalent requirement unless the Department has reason to believe a certified operator is necessary.

PFAS VOLUNTARY SAMPLING:
The Department is implementing voluntary sampling of per-and polyfluoroalkyl substances, or more commonly known as PFAS. PFAS are a group of compounds common in industrial processes which degrade slowly in the environment and have suspected health effects such as cancer, decreased immune response, hepatotoxicity, and low infant birth weight. Deleterious effects can occur at levels as low as parts per trillion, or 1/1,000,000,000,000 of a gram. EPA plans to 1) require additional testing for facilities within industry groups having the highest likelihood of discharging PFAS; 2) promulgate Effluent Limitation Guidelines for these facilities; and 3) designate PFAS as RCRA hazardous wastes prior to 2024, per their PFAS Strategic Roadmap. Removal technologies for PFAS remain both traditionally expensive and resource-intensive. As such, understanding this facility's reasonable potential to violate future potential effluent limitations prior to their implementation will inform required process improvements in the future.

✓ This facility is a metal finisher. PFAS are primarily used as wetting agents, mist and fume suppressants, agents to reduce mechanical wear, or surface coatings to reduce corrosion. PFAS are especially prevalent in chromium electroplating facilities. The Department recommends sampling using Test Method 1633, found here: https://www.epa.gov/system/files/documents/2021-09/method_1633_draft_aug-2021.pdf. Anticipated detected analytes include PFBS, PFHxS, PFOS, 4:2 FTSA, 6:2 FTSA, 8:2 FTSA, PFBA, PFPeA, PFHxA, PFHpA, and PFOA. Sample results may be submitted with this permit's renewal application.

PERMIT SHIELD:
The permit shield provision of the Clean Water Act (Section 402(k)) and Missouri Clean Water Law (644.051.16 RSMo) provides that when a permit holder is in compliance with its NPDES permit or MSOP, it is effectively in compliance with certain sections of the Clean Water Act, and equivalent sections of the Missouri Clean Water Law. In general, the permit shield is a legal defense against certain enforcement actions, but is only available when the permittee is in compliance with its permit and satisfies other specific conditions, including having completely disclosed all discharges and all facility processes and activities to the Department at time of application. It is the permittee's responsibility to ensure that all potential pollutants, waste streams, discharges, and activities, as well as wastewater land application, storage, and treatment areas, are all fully disclosed to the Department at the time of application or during the draft permit review process. Previous permit applications are not necessarily evaluated or considered during permit renewal actions. All relevant disclosures should be provided with each permit application, including renewal applications, even when the same information was previously disclosed in a past permit application. Subsequent requests for authorization to discharge additional pollutants, expanded or newly disclosed flows, or for authorization for previously unpermitted and undisclosed activities or discharges, will likely require an official permit modification, including another public participation process.

PRETREATMENT:
This permit does not regulate pretreatment requirements for facilities discharging to an accepting permitted wastewater treatment facility. If applicable, the receiving entity (the publicly owned treatment works - POTW) is to ensure compliance with any effluent limitation guidelines for pretreatment listed in 40 CFR Subchapter N per 10 CSR 20-6.100. Pretreatment regulations per 644.016 RSMo are limitations on the introduction of pollutants or water contaminants into publicly owned treatment works or facilities.

✓ Not applicable, this facility does not discharge industrial wastewater to a POTW.

REASONABLE POTENTIAL (RP):
Regulations per 10 CSR 20-7.015(9)(A)2 and 40 CFR 122.44(d)(1)(i) requires effluent limitations for all pollutants which 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. Per 10 CSR 20-7.031(4), general criteria shall be applicable to all waters of the state at all times; however, acute toxicity criteria may be exceeded by permit allowance in zones of initial dilution, and chronic toxicity criteria may be exceeded by permit allowance in mixing zones.

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 the pollutant per 40 CFR Part 122.44(d)(1)(iii) and the most stringent limits per 10 CSR 20-7.031(9)(A).

Permit writers use reasonable potential determinations (RPD) as provided in Sections 3.1.2, 3.1.3, and 3.2 of the TSD. An RPD consists of evaluating visual observations, non-numeric information, or small amounts of numerical data (such as 1 data point supplied in the application). A stormwater RPD consists of reviewing application data and/or discharge monitoring data and comparing those

data to narrative or numeric water quality criteria. RPD decisions are based on minimal numeric samples, the type of effluent proposed for discharge, or the unavailability of numerical RPA for a parameter, such as pH, or oil and grease. Absent effluent data, effluent limits are derived without consideration of effluent variability and is assumed to be present unless found to be absent to meet the requirements of antidegradation review found in 10 CSR 20-7.031(3) and reporting of toxic substances pursuant to 40 CFR 122.44(f).

Permit writers use the Department's permit writer's manual (https://dnr.mo.gov/water/business-industry-other-entities/technical-assistance-guidance/wastewater-permit-writers-manual), 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, inspection reports, stream water quality information, stream flows, uses assigned to each waterbody, and all applicable site specific information and data gathered by the facility 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 facility; B. effluent guidelines; C. best professional judgment of the permit writer; D. water quality; and E. BMPs. Part IV provides specific decisions related to this permit.

Secondly, permit writers use mathematical reasonable potential analysis (RPA) using the *Technical Support Document for Water Quality Based Toxics Control (TSD)* methods (EPA/505/2-90-001) for continuous discharges. The TSD RPA method cannot be performed on stormwater as the flow is intermittent. See additional considerations under Part II WATERBODY MIXING CONSIDERATIONS and Part III WASTELOAD ALLOCATIONS. Wasteload allocations are determined utilizing the same equations and statistical methodology.

✓ No statistical RPAs were performed for this permit, as the conditions for stormwater were based on standardized benchmarks, the effluent limits are not based on effluent variability, or where variability is not used for certain water quality limits such as pH or oil and grease. Also, this is a land application permit.

REGIONAL OFFICES (ROS):
Regional Offices will provide a compliance assistance visit at a permittees request; a regional map with links to phone numbers can be found here: https://dnr.mo.gov/about-us/division-environmental-quality/regional-office. Or use https://dnr.mo.gov/compliance-assistance-enforcement to request assistance from the Region online.

RENEWAL REQUIREMENTS:
The renewal special condition permit requirement is designed to guide the facility to prepare and include all relevant and applicable information in accordance with 10 CSR 20-6.010(7)(A)-(C), and if applicable, federal regulations. The special condition may not include all requirements and requests for additional information may be made at the time of permit renewal under 644.051.13(5) RSMo and 40 CFR 122.21(h). Prior to submittal, the facility must review the entire submittal to confirm all required information and data is provided; it is the facility's responsibility to discern if additional information is required. Failure to fully disclose applicable information with the application or application addendums may result in a permit revocation per 10 CSR 20-6.010(8)(A) and may result in the forfeiture of permit shield protection authorized in 644.051.16 RSMo. Forms are located at: https://dnr.mo.gov/water/business-industry-other-entities/permits-certification-engineering-fees/wastewater

SAMPLING FREQUENCY JUSTIFICATION:
Sampling and reporting frequency was generally retained from previous permit. 40 CFR 122.45(d)(1) indicates all continuous discharges, such as wastewater discharges, shall be permitted with daily maximum and monthly average limits. Minimum sampling frequency for all parameters is annually per 40 CFR 122.44(i)(2).

SAMPLING TYPE JUSTIFICATION:
Sampling type was continued from the previous permit. The sampling types are representative of the activities.

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 and 10 CSR 20-7.031(11) providing certain conditions are met. An SOC is not allowed:

- For effluent limitations based on technology-based standards established in accordance with federal requirements, if the deadline for compliance established in federal regulations has passed in accordance with 40 CFR 125.3.
- For a newly constructed facility in most cases per 644.029 RSMo. Newly constructed facilities must meet all applicable effluent limitations (technology and water quality) when discharge begins. New facilities are required to install the appropriate control technologies as specified in a permit or antidegradation review. A SOC is allowed for a new water quality based effluent limit not included in a previously public noticed permit or antidegradation review, which may occur if a regulation changes during construction.

- To develop a TMDL, UAA, or other study associated with development of a site specific criterion. A facility is not prohibited from conducting these activities, but a SOC may not be specifically granted for conducting these activities.

In order to provide guidance in developing SOCs, and to attain a greater level of consistency, the Department issued a policy on development of SOCs on October 25, 2012. The policy provides guidance to permit writers on standard time frames for schedules for common activities, and guidance on factors to modify the length of the schedule.

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

SPILLS, OVERFLOWS, AND OTHER UNAUTHORIZED DISCHARGE REPORTING:

Per 260.505 RSMo, 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 possible 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.
https://revisor.mo.gov/main/OneSection.aspx?section=260.500&bid=13989&hl=

Any other spills, overflows, or unauthorized discharges reaching waters of the state must be reported to the regional office during normal business hours, or after normal business hours, to the Department's 24 hour Environmental Emergency Response spill line at 573-634-2436.

Certain industrial facilities are subject to the self-implementing regulations for Oil Pollution Prevention in 40 CFR 112, and are required to initiate and follow Spill Prevention, Control, and Countermeasure (SPCC) Plans. This permit, as issued, is not intended to be a replacement for any SPCC plan, nor can this permit's conditions be automatically relaxed based on the SPCC plan if the permit is more stringent than the plan.

SLUDGE – INDUSTRIAL:

Industrial sludge is solid, semi-solid, or liquid residue generated during the treatment of industrial process or non-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 any material derived from industrial sludge. Industrial sludge could also be derived from lagoon dredging or other similar maintenance activities. Certain oil sludges, like those from oil water separators, are subject to self-implementing federal regulations under 40 CFR 279 for used oils.

✓ Applicable; manufacturing sludge is removed as a presscake. Presscake is collected at the ecoat line and is not sent to the lagoon. Other sludge collected in the lagoon is stored in the lagoon. The permitted management strategy must be followed, see permit under FACILITY DESCRIPTION. If the permitted management strategy cannot be followed, the facility must obtain a permit modification.

STANDARD CONDITIONS:

The standard conditions Part I attached to this permit incorporate all sections of 10 CSR 20-6.010(8) and 40 CFR 122.41(a) through (n) by reference as required by law. These conditions, in addition to the conditions enumerated within the standard conditions should be reviewed by the facility to ascertain compliance with this permit, state regulations, state statutes, federal regulations, and the Clean Water Act. Standard Conditions Part III, if attached to this permit, incorporate requirements dealing with domestic wastewater, domestic sludge, and land application of domestic wastes.

STORMWATER PERMITTING: LIMITATIONS AND BENCHMARKS:

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-only discharges. The *Technical Support Document for Water Quality Based Toxics Control* (EPA/505/2-90-001; 1991) §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), a benchmark, or a monitoring requirement as dictated by site specific conditions, the BMPs in place, the BMPs proposed, past performance of the facility, and the receiving water's current quality.

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 Water Quality Standards (WQSs) are based on one hour of exposure, and must be protected at all times. Therefore, industrial stormwater facilities with toxic contaminants present in the stormwater may have the potential to cause a violation of acute WQSs if toxic contaminants occur in sufficient amounts. In this instance, the permit writer may apply daily maximum limitations. Conversely, it is unlikely for rainfall to cause a discharge for four continuous days from a facility; if this does occur however, the receiving stream will also likely sustain a significant amount of flow providing dilution. Most chronic WQSs are based on a four-day exposure with some exceptions. Under this scenario, most industrial stormwater facilities have limited potential to cause a violation of chronic water quality standards in the receiving stream.

A standard mass-balance equation cannot be calculated for stormwater because stormwater flow and flow in the receiving stream cannot be determined for conditions on any given day or storm event without real-time ad-hoc monitoring. The amount of stormwater discharged from the facility will vary based on current and 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, area of surfaces with reduced permeability (houses, parking lots, and the like) in the watershed, hydrogeology, topography, etc. Decreased permeability may increase the stream flow dramatically over a short period of time (flash).

Numeric benchmark values are based on site specific requirements taking in to account a number of factors but cannot be applied to any process water discharges. First, the technology in place at the site to control pollutant discharges in stormwater is evaluated. The permit writer also evaluates other similar permits for similar activities. A review of the guidance forming the basis of Environmental Protection Agency's (EPA's) *Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity* (MSGP) may also occur. 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 may also be used. 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. If a facility has not disclosed BMPs applicable to the pollutants for the site, the facility may not be eligible for benchmarks.

40 CFR 122.44(b)(1) requires the permit implement the most stringent limitations for each discharge, including industrially exposed stormwater; and 40 CFR 122.44(d)(1)(i) and (iii) requires the permit to include water-quality based effluent limitations where reasonable potential has been found. However, because of the non-continuous nature of stormwater discharges, staff are unable to perform statistical Reasonable Potential Analysis (RPA) under most stormwater discharge scenarios. Reasonable potential determinations (RPDs; see REASONABLE POTENTIAL above) using best professional judgment are performed.

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 facility in knowing when additional corrective actions may be necessary to comply with the conditions of the permit.

BMP inspections typically occur more frequently than sampling. Sampling frequencies are based on the facility's ability to comply with the benchmarks and the requirements of the permit. Inspections should occur after large rain events and any other time an issue is noted; sampling after a benchmark exceedance may need to occur to show the corrective active taken was meaningful.

When a permitted feature or outfall consists of only stormwater, a benchmark may be implemented at the discretion of the permit writer, if there is no RP for water quality excursions.

- ✓ Applicable, this facility has stormwater-only outfalls where benchmarks or limitations were deemed appropriate contaminant measures.

STORMWATER POLLUTION PREVENTION PLAN (SWPPP):

A SWPPP must be prepared by the facility 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.

Pursuant to 40 CFR 122.44(k), Best Management Practices (BMPs) must be used to control or abate the discharge of pollutants when: 1) Authorized under §304(e) of the Clean Water Act (CWA) for the control of toxic pollutants and hazardous substances from ancillary industrial activities; 2) Authorized under §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. A BMP may take the form of a numeric benchmark. In accordance with the EPA's *Developing Your Stormwater Pollution Prevention Plan, A Guide for Industrial Operators,* (EPA 833-B-09-002) published by the EPA in 2015 and again in 2021 https://www.epa.gov/sites/default/files/2021-03/documents/swppp_guide_industrial_2021_030121.pdf 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. Additional information can be found in *Stormwater Management for Industrial Activities: Developing Pollution Prevention Plans and Best Management Practices* (EPA 832-R-92-006; September 1992).

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 facility 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.

The facility should review the precipitation frequency maps for development of appropriate BMPs. The online map https://hdsc.nws.noaa.gov/hdsc/pfds/pfds_map_cont.html?bkmrk=mo can be targeted to the facility location and is useful when designing detention structures and planning for any structural BMP component. The stormwater map can also be used to determine if the volume of stormwater caused a disrupted BMP; and if the BMP should be re-designed to incorporate additional stormwater flows.

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 (https://dnr.mo.gov/document-search/antidegradation-implementation-procedure).

Alternative Analysis (AA) evaluation of the BMPs is a structured evaluation of BMPs which are reasonable and cost effective. The AA evaluation should include practices 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), §II.B.

If parameter-specific numeric benchmark exceedances continue to occur and the facility 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 facility 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, which includes an appropriate fee; the application is found at: https://dnr.mo.gov/water/business-industry-other-entities/permits-certification-engineering-fees/wastewater

- ✓ Applicable; a SWPPP shall be developed and implemented for this facility; see specific requirements in the SPECIAL CONDITIONS section of the permit.

SUFFICIENTLY SENSITIVE ANALYTICAL METHODS:

Please review Standard Conditions Part 1, §A, No. 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 and incorporated within this permit. 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 any given discharge at concentrations 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.

The reporting limits established by the chosen laboratory must be below the lowest effluent limits established for the specified parameter (including any parameter's future limit after an SOC) in the permit unless the permit provides for an ML or if the facility provides a written rationale to the Department. It is the permittee's responsibility to ensure the laboratory has adequate equipment and controls in place to quantify the pollutant. Inflated reporting limits will not be accepted by the Department if the reporting limit is above the parameter value stipulated in the permit. 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 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 facility is responsible for working with their contractors to ensure the analysis performed is sufficiently sensitive.

UNDERGROUND INJECTION CONTROL (UIC):
The UIC program for all classes of wells in the State of Missouri is administered by the Missouri Department of Natural Resources and approved by EPA pursuant to §§1422 and 1425 of the Safe Drinking Water Act (SDWA) and 40 CFR 147 Subpart AA. Injection wells are classified based on the liquids which are being injected. Class I wells are hazardous waste wells which are banned by 577.155 RSMo; Class II wells are established for oil and natural gas production; Class III wells are used to inject fluids to extract minerals; Class IV wells are also banned by Missouri in 577.155 RSMo; Class V wells are shallow injection wells; some examples are heat pump wells and groundwater remediation wells. Domestic wastewater being disposed of sub-surface is also considered a Class V well. In accordance with 40 CFR 144.82, construction, operation, maintenance, conversion, plugging, or closure of injection wells shall not cause movement of fluids containing any contaminant into Underground Sources of Drinking Water (USDW) if the presence of any contaminant may cause a violation of any drinking water standards or groundwater standards under 10 CSR 20-7.031, or other health based standards, or may otherwise adversely affect human health. If the director finds the injection activity may endanger USDWs, the Department may require closure of the injection wells, or other actions listed in 40 CFR 144.12(c), (d), or (e). In accordance with 40 CFR 144.26, the facility shall submit a Class V Well Inventory Form for each active or new underground injection well drilled, or when the status of a well changes, to the Missouri Department of Natural Resources, Geological Survey Program, P.O. Box 250, Rolla, Missouri 65402. The Class V Well Inventory Form can be requested from the Geological Survey Program or can be found at the following web address: https://dnr.mo.gov/document-search/class-v-well-inventory-form-mo-780-1774 Single family residential septic systems and non-residential septic systems used solely for sanitary waste and having the capacity to serve fewer than 20 persons a day are excluded from the UIC requirements (40 CFR 144.81(9)). The Department implements additional requirements for these types of operations pursuant to 10 CSR 20-6.015(4)(A)1 which instructs the Department to develop permit conditions containing limitations, monitoring, reporting, and other requirements to protect soils, crops, surface waters, groundwater, public health, and the environment.

✓ Not applicable; the facility has not submitted materials indicating the facility will be performing UIC at this site.

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 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. Thermal variances are regulated separately and are found under 644.

✓ 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; definitions], the WLA is the maximum amount of pollutant each discharger is allowed to discharge into the receiving stream without endangering water quality. Only streams with available load allocations can be granted discharge allowances. Outfalls afforded mixing allocations provide higher limits because the receiving stream is able to accept more pollutant loading without causing adverse impacts to the environment or aquatic life.

✓ Not applicable, this is a no-discharge permit therefore WLAs were not calculated.

WASTELOAD ALLOCATION (WLA) MODELING:
Facilities 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 STANDARD REVISION:
In accordance with 644.058 RSMo, the Department is required to utilize an evaluation of the environmental and economic impacts of modifications to water quality standards of twenty-five percent or more when making individual site-specific permit decisions.

✓ This operating permit does not contain requirements for a water quality standard changing twenty-five percent or more since the previous operating permit.

PART IV. EFFLUENT LIMIT DETERMINATIONS

FEATURES #001 & #002 – NO-DISCHARGE WASTEWATER STRUCTURES

Feature #001 is domestic wastewater; feature #002 is industrial wastewater.

REGULAR MONITORING TABLE:

PARAMETERS	UNIT	DAILY MINIMUM	MONTHLY AVERAGE	PREVIOUS PERMIT LIMITS	MINIMUM SAMPLING FREQUENCY	MINIMUM REPORTING FREQUENCY	SAMPLE TYPE
PHYSICAL							
FREEBOARD	FEET	2.0	*	NEW	ONCE MONTH	MONTHLY	MEASUREMENT

DERIVATION AND DISCUSSION OF LIMITS:

Freeboard

2 foot minimum freeboard level pursuant to 10 CSR 20-8.200(4)(A)3 for lagoons and basins. Monthly monitoring of the freeboard is required to ensure proper operational controls. This permitted feature was determined to be no-discharge. As such, an antidegradation review was not conducted and discharge authorization has not been granted. To ensure the basin remains no-discharge, comply with all BMPs listed, monitor freeboard/liquid levels, and report highest reading monthly. Permits only authorize non-emergency discharges after the facility has documented compliance with state and federal Clean Water laws and regulations, including antidegradation and construction requirements. Freeboard is the distance between the top of the liquid level and the bottom of the discharge pipe or canal. Freeboard should be measured to the nearest inch, and is reported in tenths of feet.

EMERGENCY DISCHARGE TABLE:

PARAMETERS	UNIT	DAILY MAX	OTHER	PREVIOUS PERMIT	MINIMUM SAMPLING FREQUENCY	REPORTING FREQUENCY	SAMPLE TYPE
PHYSICAL							
FLOW	MGD	*	*total	SAME	ONCE/DISCHARGE	ONCE/DISCHARGE	TOTAL
DURATION	hours	96	-	NEW	ONCE/DISCHARGE	ONCE/DISCHARGE	MEASURED
CONVENTIONAL							
CHEMICAL OXYGEN DEMAND	mg/L	*	-	BOD	ONCE/DISCHARGE	ONCE/DISCHARGE	GRAB
E. COLI	#/100 mL	*	-	SEASON	ONCE/DISCHARGE	ONCE/DISCHARGE	GRAB
OIL & GREASE	mg/L	*	-	SAME	ONCE/DISCHARGE	ONCE/DISCHARGE	GRAB
pH †	SU	*	min and max	SAME	ONCE/DISCHARGE	ONCE/DISCHARGE	GRAB
TOTAL SUSPENDED SOLIDS (TSS)	mg/L	*	-	SAME	ONCE/DISCHARGE	ONCE/DISCHARGE	GRAB
NUTRIENTS							
AMMONIA AS N	mg/L	*	-	SAME	ONCE/DISCHARGE	ONCE/DISCHARGE	GRAB

* monitoring and reporting requirement only
† report the minimum and maximum pH values; pH is not to be averaged
new parameter not established in previous state operating permit

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 ensure compliance with permitted effluent limitations. If the facility is unable to obtain effluent flow, then it is the responsibility of the facility 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).

Duration

The duration of the discharge is limited to 4 days under this permit. Under no circumstances can the facility allow any emergency discharge to occur longer than 96 hours to protect the receiving stream from chronic harm. See permit.

CONVENTIONAL:

Chemical Oxygen Demand (COD)
The previous permit required monitoring of BOD_5 for emergency discharges. However, as there is no expectation that the wastewater from either basin will occur for more than a few hours, and is limited to no more than 4 days, therefore the more appropriate parameter is COD. Both COD and BOD test methods aim to give an indication of the amount of pollution in a water sample. COD is the amount of oxygen required to chemically breakdown the pollutants whereas BOD is the amount of oxygen required to do this biologically through micro-organisms. BOD analysis is performed to determine what effect water containing bacteria and organic materials will have on animal and plant life, or when released into a stream or lake. There is a strong correlation between COD and BOD, however COD analysis is a much faster and more accurate method for wastewater of all types. COD analysis is a measurement of the oxygen-depletion capacity of a water sample contaminated with organic waste matter. Specifically, it measures the equivalent amount of oxygen required to chemically oxidize organic compounds in water to remove the pollution.

E. coli
This parameter is expected to be present in the discharge therefore sampling is required for each discharge. The previous permit limited the sampling to the "recreational season"; however, that requirement is only for determining permit limits for specific types of receiving streams. E. coli will be monitored in any discharge regardless of when it occurred during the year.

Oil & Grease
Sampling each discharge continued from previous permit per the permit writer's best professional judgment. The facility had no reported discharges during the last permit term. Oil and grease is considered a conventional pollutant. Oil and grease is a comprehensive test which measures for gasoline, diesel, crude oil, creosote, kerosene, heating oils, heavy fuel oils, lubricating oils, waxes, and some asphalt and pitch. The test can also detect some volatile organics such as benzene, toluene, ethylbenzene, or xylene, but these constituents are often lost during testing due to their boiling points. The permit writer completed an RPD on this parameter and found no RP because the facility land applies the wastewater. Oils and greases of different densities will possibly form sheen or unsightly bottom deposits at levels which vary. To protect the general criteria, it is the responsibility of the facility to visually observe the discharge and receiving waters for sheen or bottom deposits. This permit does not allow the facility to violate general criteria pursuant to 10 CSR 20-7.015(4) even if an emergency discharge is allowed.

pH
pH is a fundamental water quality indicator. Additionally, metals leachability and ammonia availability in wastewater is dependent on pH.

Total Suspended Solids (TSS)
TSS monitoring is included per the permit writer's best professional judgment. TSS can show via indirect measurement if sludge is being discharges with the wastewater. High TSS values can indicate metals are being discharged to the receiving stream. Solids can also suffocate aquatic life or cause general criteria violations pursuant to 10 CSR 20-7.031(4)(A) and (C). The value reported by the facility if there is a discharge will be evaluated to determine if a violation of general criteria occurred at the time of release.

NUTRIENTS:

Ammonia, Total as Nitrogen
Nitrogen is expected to be present in the emergency discharge therefore sampling is required for each discharge. Ammonia can be acutely toxic dependent on the levels discharged, the temperature, and pH of the discharge. Even if the discharge is allowed following the terms of the permit, the facility cannot violate general criteria, or cause toxicity in the receiving stream pursuant to 10 CSR 20-7.031(4)(D). If aquatic life is effected, the determination will be made that the general criteria were violated.

PERMITTED FEATURE #002 –WASTEWATER MONITORING

ANNUAL WASTEWATER MONITORING TABLE:

PARAMETERS	UNIT	DAILY MAX	MONTHLY AVG.	PREVIOUS PERMIT LIMITS	MINIMUM SAMPLING FREQUENCY	MINIMUM REPORTING FREQUENCY	SAMPLE TYPE
CONVENTIONAL							
CHLORIDES	mg/L	*	*	NEW	ONCE/YEAR	ONCE/YEAR	GRAB
OIL & GREASE	mg/L	*	*	NEW	ONCE/YEAR	ONCE/YEAR	GRAB
PH †	SU	6.5 TO 9.0	-	SAME	ONCE/YEAR	ONCE/YEAR	GRAB
METALS							
ALUMINUM, TOTAL	µg/L	*	*	SAME	ONCE/YEAR	ONCE/YEAR	GRAB
CADMIUM, TOTAL	µg/L	*	*	SAME	ONCE/YEAR	ONCE/YEAR	GRAB
CHROMIUM, TOTAL	µg/L	*	*	SAME	ONCE/YEAR	ONCE/YEAR	GRAB
COPPER, TOTAL	µg/L	*	*	SAME	ONCE/YEAR	ONCE/YEAR	GRAB
IRON, TOTAL	µg/L	*	*	SAME	ONCE/YEAR	ONCE/YEAR	GRAB
LEAD, TOTAL	µg/L	*	*	SAME	ONCE/YEAR	ONCE/YEAR	GRAB
NICKEL, TOTAL	µg/L	*	*	SAME	ONCE/YEAR	ONCE/YEAR	GRAB
ZINC, TOTAL	µg/L	*	*	SAME	ONCE/YEAR	ONCE/YEAR	GRAB
NUTRIENTS							
NITRATE/NITRITE AS N	mg/L	*	*	SAME	ONCE/YEAR	ONCE/YEAR	GRAB
TOTAL KJELDAHL NITROGEN	mg/L	*	*	SAME	ONCE/YEAR	ONCE/YEAR	GRAB

* monitoring and reporting requirement only
† report the minimum and maximum pH values; pH is not to be averaged
new parameter not established in previous state operating permit

IRRIGATION WASTEWATER MONITORING DERIVATION OF REQUIREMENTS:
A sample is required annually even if no irrigation took place.

CONVENTIONAL:

Chlorides
Monitoring is required to protect for sudden plant phytotoxicity pursuant to 10 CSR 20-6.015(4).

Oil & Grease
Monitoring of the wastewater prior to land application is necessary to ensure soils have the capacity to absorb any oils or greases. Runoff containing any sheen is prohibited by general criteria pursuant to 10 CSR 20-7.015(4).

pH
Monitoring only with a water quality-based limit of 6.5 to 9.0 SU. Although industrial wastewater has been successfully land applied at a wider range of pHs, metals toxicity and leaching can be impacted by pH. Thus, the range of 6.5 to 9.0 SU has been chosen as a limit to ensure the land application system maintains proper functionality.

METALS:

Aluminum, Total; Cadmium, Total; Chromium, Total; Copper, Total; Iron, Total; Lead, Total; Nickel, Total; Zinc, Total
These metals are continued from the previous permit. Monitoring is required to ensure the land application system does not have reasonable potential to cause or contribute to phytotoxicity pursuant to 10 CSR 20-6.015(4).

NUTRIENTS:

Nitrate/Nitrite as N, and Kjeldahl Nitrogen, Total (TKN)
Monitoring required to determine overall plant health and to determine compliance with groundwater uses pursuant to 10 CSR 20-6.015(4) and 10 CSR 20-7.031(6).

PERMITTED FEATURE #004 – LAND APPLICATION FIELD OPERATIONAL MONITORING

IRRIGATION OPERATIONS TABLE:

PARAMETERS	UNIT	DAILY MAX	MONTHLY AVG	PREVIOUS PERMIT LIMITS	MINIMUM SAMPLING FREQUENCY	MINIMUM REPORTING FREQUENCY	SAMPLE TYPE
IRRIGATION ACTIVITY							
APPLICATION AREA	ACRES	*	*	SAME	ONCE/DAY ♠	ONCE/MONTH	RECORD
APPLICATION RATE	GAL/ACRE	*	*	SAME	ONCE/DAY ♠	ONCE/MONTH	RECORD
IRRIGATION PERIOD	HOURS	*	*	SAME	ONCE/DAY ♠	ONCE/MONTH	RECORD
VOLUME IRRIGATED	GALLONS	*	*	SAME	ONCE/DAY ♠	ONCE/MONTH	RECORD

♠ Facility will maintain records for each day land application occurred. If no application occurred, a record is not required.

LAND APPLICATION FIELD OPERATIONAL MONITORING:

Application Area
Recording and reporting requirement only. In order to determine compliance with 10 CSR 20-6.015 and 10 CSR 20-8.200, reporting the area utilized will allow the Department to ensure compliance with setback distances. Adhering to the required setbacks prevents illicit discharges to waterbodies.

Application Rate
Recording and reporting requirement only. In order to determine compliance with 10 CSR 20-6.015 and 10 CSR 20-8.200, monitoring the rate will allow the Department to ensure appropriate permeability and plant uptake is occurring. Rates of application must be adjusted based on soil saturation; and rate monitoring will prevent soil saturation conditions possibly resulting in runoff or illicit discharges to waterbodies.

Irrigation Period
Recording and reporting requirement only. In order to determine compliance with 10 CSR 20-6.015 and 10 CSR 20-8.200 monitoring of irrigation period is required. Monitoring the irrigation period will also ensure soils do not get saturated and result in runoff or cause illicit discharges to waterbodies.

Volume Irrigated
Recording and reporting requirement only. In order to determine compliance with 10 CSR 20-6.015 and 10 CSR 20-8.200, monitoring of application activity is required. Monitoring the volume irrigated will allow the Department to ensure over application does not occur, and appropriate hydraulic loading is maintained within design levels. This will also help prevent runoff and illicit discharges due to soil saturation.

STORMWATER OUTFALLS #003 & #005 – STORMWATER ONLY
Outfall #005 removed at 2022 mod.

EFFLUENT LIMITATIONS TABLE:

PARAMETERS	UNIT	DAILY MAXIMUM LIMIT	BENCH-MARK	PREVIOUS PERMIT LIMITS	MINIMUM SAMPLING FREQUENCY	REPORTING FREQUENCY	SAMPLE TYPE
PHYSICAL							
FLOW	MGD	*	-	SAME	ONCE/QUARTER	QUARTERLY	24 HR. ESTIMATE
CONVENTIONAL							
COD	mg/L	**	120	*	ONCE/QUARTER	QUARTERLY	GRAB
OIL & GREASE	mg/L	15	-	SAME	ONCE/QUARTER	QUARTERLY	GRAB
pH †	SU	6.5 TO 9.0	-	SAME	ONCE/QUARTER	QUARTERLY	GRAB
TSS	mg/L	110	-	SAME	ONCE/QUARTER	QUARTERLY	GRAB
METALS							
ALUMINUM, TR	µg/L	**	1100	*	ONCE/QUARTER	QUARTERLY	GRAB
COPPER, TR	µg/L	**	16	*	ONCE/QUARTER	QUARTERLY	GRAB
IRON, TR	µg/L	**	4000	*	ONCE/QUARTER	QUARTERLY	GRAB

* monitoring and reporting requirement only
** monitoring with associated benchmark
† 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 ensure compliance with permitted effluent limitations. If the facility is unable to obtain effluent flow, then it is the responsibility of the facility 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), quarterly monitoring continued from previous permit. The facility reported from 0.001 to 0.95 MGD in the last permit term for outfall #003.

CONVENTIONAL:

Chemical Oxygen Demand (COD)
Monitoring with 120 mg/L daily maximum benchmark is included using the permit writer's best professional judgment. The last permit was monitoring only at outfall #003. There are no numeric 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 facility to identify increases in COD which may indicate materials/chemicals coming into contact with stormwater causing an increase in oxygen demand. Increases in COD may indicate a need for maintenance or improvement of BMPs. The facility reported from 25 to 66 mg/L in the last permit term. The benchmark value falls within the range of values implemented in other permits having similar industrial activities and is achievable through proper BMP controls.

Oil & Grease
15 mg/L daily maximum; continued from previous permit per the permit writer's best professional judgment. The facility reported from non-detect to 29 mg/L in the last permit term. Oil and grease is considered a conventional pollutant. Oil and grease is a comprehensive test which measures for gasoline, diesel, crude oil, creosote, kerosene, heating oils, heavy fuel oils, lubricating oils, waxes, and some asphalt and pitch. The test can also detect some volatile organics such as benzene, toluene, ethylbenzene, or xylene, but these constituents are often lost during testing due to their boiling points. The permit writer completed an RPD on this parameter and found RP based on sampling data. Oils and greases of different densities will possibly form sheen or unsightly bottom deposits at levels which vary from 15 mg/L. To protect the general criteria, it is the responsibility of the facility to visually observe the discharge and receiving waters for sheen or bottom deposits. The limit this permit applies does not allow the facility to violate general criteria pursuant to 10 CSR 20-7.015(4) even if data provided are below the numeric limit.
AQL Chronic: 10 mg/L per 10 CSR 20-7.031 Table A1
Set chronic standard equal to chronic WLA per TSD §5.4.2 (EPA/505/2-90-001); multiply by 1.5 to obtain acute limit.
10 mg/L * 1.5 = 15 mg/L, daily maximum limit

pH

6.5 to 9.0 SU – instantaneous grab sample. Water quality limits [10 CSR 20-7.031(5)(E)] are applicable to this outfall. pH is a fundamental water quality indicator. Additionally, metals leachability and ammonia availability in wastewater is dependent on pH. Limitations in this permit will protect against aquatic organism toxicity, downstream water quality issues, human health hazard contact, and negative physical changes in accordance with the general criteria at 10 CSR 20-7.031(4) and the Clean Water Act's (CWA) goal of 100% fishable and swimmable rivers and streams. The facility reported from 6.99 to 10.7 SU in the last permit term. The permit writer has determined RP based on the data provided.

Total Suspended Solids (TSS)

Monitoring with a daily maximum limit of 110 mg/L. There is no numeric 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 facility to identify increases in TSS indicating 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 facility reported from non-detect to 45 mg/L in the last permit term. The data themselves show no RP, but the activities performed on site have RP to cause or contribute to solids leaving the site. The determination at this time is to maintain the limit for TSS based on the activities at the site. The previous permit established this value as a technology based effluent limitation (TBEL). For this reason, the TBEL will remain in the permit. The limit is achievable through proper operational and maintenance of BMPs and falls within the range of values implemented in other permits having similar industrial activities.

METALS:

Data were not always reported correctly for these metals during the last permit term. Some data was obviously in mg/L. The facility is required to convert any data from the laboratory in mg/L to µg/L. To convert from mg/L to µg/L, move the decimal place three numerals to the right.

Aluminum, Total Recoverable

Previous permit limits were monitoring only; the facility reported between 211 and 562 µg/L in the last permit term. This parameter does not have RP via an RPD determination; see Part III REASONABLE POTENTIAL based on numeric data. A site inspection shows a variety of materials stored outside the manufacturing building. These materials include tires, metal and other debris, totes with product leaking out, filter press cake from e-coating, old paint cans, empty totes, and other assorted waste products. The metals and debris inherently contain metals that could be released into stormwater. The permittee conducts painting on some products. The filter cake was not defined, but it is related to the e-coating process. Depending on the rinsing process or type of coating, the material could contain metals possibly leaching from the filter press cake during precipitation events. This outfall can be afforded a benchmark. The EPA has conducted research for metals facilities and the stormwater discharged from similar facilities and the EPA has determined a benchmark or 1100 µg/L is appropriate for this type of facility in the 2021 MSGP, therefore this benchmark will be used. This facility, based on data, is able to meet this benchmark.

Copper, Total Recoverable

Previous permit limits monitoring only; the facility reported between 1.43 and 15 µg/L in the last permit term. This parameter does not have RP; see fact sheet Part III, REASONABLE POTENTIAL based on numeric data. A site inspection shows a variety of materials stored outside the manufacturing building. These materials include tires, metal and other debris, totes with product leaking out, filter press cake from e-coating, old paint cans, empty totes, and other assorted waste products. The metals and debris inherently contain metals that could be released into stormwater. The permittee conducts painting on some products. The filter cake was not defined, but it is related to the e-coating process. Depending on the rinsing process or type of coating, the material could contain metals possibly leaching from the filter press cake during precipitation events. The Department has evaluated the discharges at this and similar facilities with metals exposed to stormwater. The data at this facility show a benchmark of 16 µg/L is achievable, therefore this will be used as the benchmark. This facility, based on data, is able to meet this benchmark. 16 was the highest data point plus a 5% margin of safety, rounded to the nearest whole number. Data obtained at or below this number show no RP for water quality harm.

Iron, Total Recoverable

Previous permit limits were monitoring only; the facility reported between 250 and 2880 µg/L in the last permit term. This parameter does not have RP; see fact sheet Part III, REASONABLE POTENTIAL. A site inspection shows a variety of materials stored outside the manufacturing building. These materials include tires, metal and other debris, totes with product leaking out, filter press cake from e-coating, old paint cans, empty totes, and other assorted waste products. The metals and debris inherently contain metals that could be released into stormwater. The permittee conducts painting on some products. The filter cake was not defined, but it is related to the e-coating process. Depending on the rinsing process or type of coating, the material could contain metals possibly leaching from the filter press cake during precipitation events. The Department has conducted research for metals facilities and the stormwater discharged from similar facilities and determined a benchmark or 4000 µg/L is appropriate for this type of facility, therefore this benchmark will be used. This facility, based on data, is able to meet this benchmark.

PART V. ADMINISTRATIVE REQUIREMENTS

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

PUBLIC NOTICE:
The Department shall give public notice a draft permit has been prepared and its issuance is pending. Additionally, public notice will be issued if a public hearing is to be held because of a significant degree of interest in or with 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 facility must be notified of the denial in writing. https://dnr.mo.gov/water/what-were-doing/public-notices The Department must issue public notice of a pending operating 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 wishing to submit comments regarding this proposed operating permit, 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. All comments must be in written form.

- ✓ The Public Notice period for this operating permit started March 25, 2022 and ended April 25, 2022. During data entry, it was noted that oil and grease was left off of table A-2 in the permit. Oil and grease was identified in the fact sheet for sampling during emergency discharge. This parameter was added to table A-2. There were no comments received during PN.

DATE OF FACT SHEET: 4/27/2022

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.

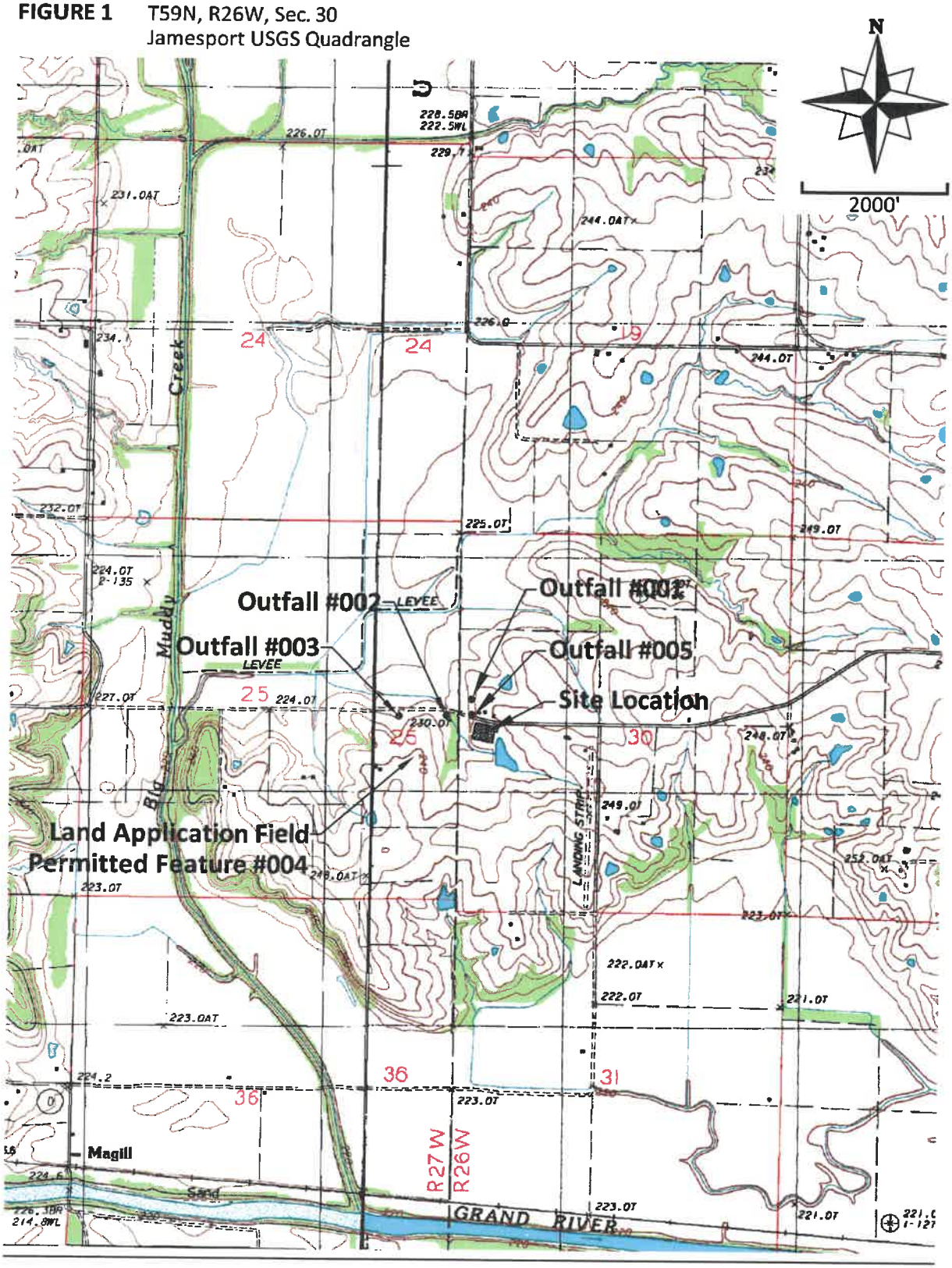
13. **Signatory Requirement.**
    a. All permit applications, reports required by the permit, or information requested by the Department shall be signed and certified. (See 40 CFR 122.22 and 10 CSR 20-6.010)
    b. The Federal Clean Water Act provides that any person who knowingly makes any false statement, 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.

Midwest Environmental CONSULTANTS

Landmark Manufacturing
Stormwater Pollution Prevention Plan (SWPPP)
Site Location Map

FIGURE 1 T59N, R26W, Sec. 30
Jamesport USGS Quadrangle



July 2022

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	22550 MH
DATE RECEIVED	FEE SUBMITTED
8.30.22	450.00
JET PAY CONFIRMATION NUMBER	

PLEASE READ ALL THE ACCOMPANYING INSTRUCTIONS BEFORE COMPLETING THIS FORM.
SUBMITTAL OF AN INCOMPLETE APPLICATION MAY RESULT IN THE APPLICATION BEING RETURNED.

IF YOUR FACILITY IS ELIGIBLE FOR A NO EXPOSURE EXEMPTION:
Fill out the No Exposure Certification Form (Mo 780-2828): https://dnr.mo.gov/forms/780-2828-f.pdf

1. REASON FOR APPLICATION:

- ☐ a. This facility is now in operation under Missouri State Operating Permit (permit) MO – _____, is submitting an application for renewal, and there is no proposed increase in design wastewater flow. Annual fees will be paid when invoiced and there is no additional permit fee required for renewal.
- ☐ b. This facility is now in operation under permit MO – _____, is submitting an application for renewal, and there is a proposed increase in design wastewater flow. Antidegradation Review may be required. Annual fees will be paid when invoiced and there is no additional permit fee required for renewal.
- ☐ c. This is a facility submitting an application for a new permit (for a new facility). Antidegradation Review may be required. New permit fee is required.
- ☑ d. This facility is now in operation under Missouri State Operating Permit (permit) MO – 0113671 and is requesting a modification to the permit. Antidegradation Review may be required. Modification fee is required.

2. FACILITY

NAME		TELEPHONE NUMBER WITH AREA CODE	
Landmark Manufacturing Corporation		(660) 663-2185	
ADDRESS (PHYSICAL)	CITY	STATE	ZIP CODE
28100 Quick Avenue	Gallatin	MO	64640

3. OWNER

NAME		TELEPHONE NUMBER WITH AREA CODE	
David Critten		(660) 663-2185	
EMAIL ADDRESS			
davidc@landmarkfab.com			
ADDRESS (MAILING)	CITY	STATE	ZIP CODE
28100 Quick Avenue	Gallatin	MO	64640

4. CONTINUING AUTHORITY

NAME		TELEPHONE NUMBER WITH AREA CODE	
Landmark Manufacturing Corporation		(660) 663-2185	
EMAIL ADDRESS			
kevinc@landmarkfab.com			
ADDRESS (MAILING)	CITY	STATE	ZIP CODE
28100 Quick Avenue	Gallatin	MO	64640

5. OPERATOR CERTIFICATION

NAME	CERTIFICATE NUMBER	TELEPHONE NUMBER WITH AREA CODE	
Not Applicable			
ADDRESS (MAILING)	CITY	STATE	ZIP CODE

6. FACILITY CONTACT

NAME	TITLE	TELEPHONE NUMBER WITH AREA CODE
Kevin Critten	President Operations	(660) 663-2185
E-MAIL ADDRESS		
kevinc@landmarkfab.com		

7. DOWNSTREAM LANDOWNER(S) Attach additional sheets as necessary.

NAME			
Critten Industries			
ADDRESS	CITY	STATE	ZIP CODE
26764 285th Steet	Gallatin	MO	64640

MO 780-1479 (04-21)

RECEIVED
AUG 30 2022
Water Protection Program

8. ADDITIONAL FACILITY INFORMATION

8.1 Legal Description of Outfalls. (Attach additional sheets if necessary.)
For Universal Transverse Mercator (UTM), use Zone 15 North referenced to North American Datum 1983 (NAD83)

001 ____¼ ____¼ Sec 30 T 59N R 26W Davie County
UTM Coordinates Easting (X): 425525 Northing (Y): 4416694

002 ____¼ ____¼ Sec 30 T 59N R 26W Davie County
UTM Coordinates Easting (X): 425437 Northing (Y): 4416561

003 ____¼ ____¼ Sec 30 T 59N R 26W Davie County
UTM Coordinates Easting (X): 425226 Northing (Y): 4416565

004 ____¼ ____¼ Sec 30 T 59N R 26W Davie County
UTM Coordinates Easting (X): 425282 Northing (Y): 4416299

Include all subsurface discharges and underground injection systems for permit consideration.

8.2 Primary Standard Industrial Classification (SIC) and Facility North American Industrial Classification System (NAICS) Codes.
Primary SIC 3465 and NAICS 336370 SIC _____ and NAICS _____
SIC _____ and NAICS _____ SIC _____ and NAICS _____

9. ADDITIONAL FORMS AND MAPS NECESSARY TO COMPLETE THIS APPLICATION

A. Is this permit for a manufacturing, commercial, mining, solid/hazardous waste, or silviculture facility? YES ☑ NO ☐
If yes, complete Form C.

B. Is the facility considered a "Primary Industry" under EPA guidelines (40 CFR Part 122, Appendix A) : YES ☐ NO ☑
If yes, complete Forms C and D.

C. Is wastewater land applied? YES ☑ NO ☐
If yes, complete Form I.

D. Are sludge, biosolids, ash, or residuals generated, treated, stored, or land applied? YES ☐ NO ☑
If yes, complete Form R.

E. Have you received or applied for any permit or construction approval under the CWA or any other environmental regulatory authority? YES ☑ NO ☐
If yes, please include a list of all permits or approvals for this facility:
Environmental Permits for this facility: MO-0113671

F. Do you use cooling water in your operations at this facility? YES ☑ NO ☐
If yes, please indicate the source of the water: Livingston County Rural Water District #4

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

10. 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 https://dnr.mo.gov/env/wpp/edmr.htmfor information on the Department's eDMR system and how to register.

☐ - I will register an account online to participate in the Department's eDMR system through the Missouri Gateway for Environmental Management (MoGEM) before any reporting is due, in compliance with the Electronic Reporting Rule.

☑ - I have already registered an account online to participate in the Department's eDMR system through MoGEM.

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

☐ - The permit I am applying for does not require the submission of discharge monitoring reports.

11. FEES

Permit fees may be paid by attaching a check, or online by credit card or eCheck through the JetPay system. Use the URL provided to access JetPay and make an online payment:
For new permits: https://magic.collectorsolutions.com/magic-ui/payments/mo-natural-resources/591

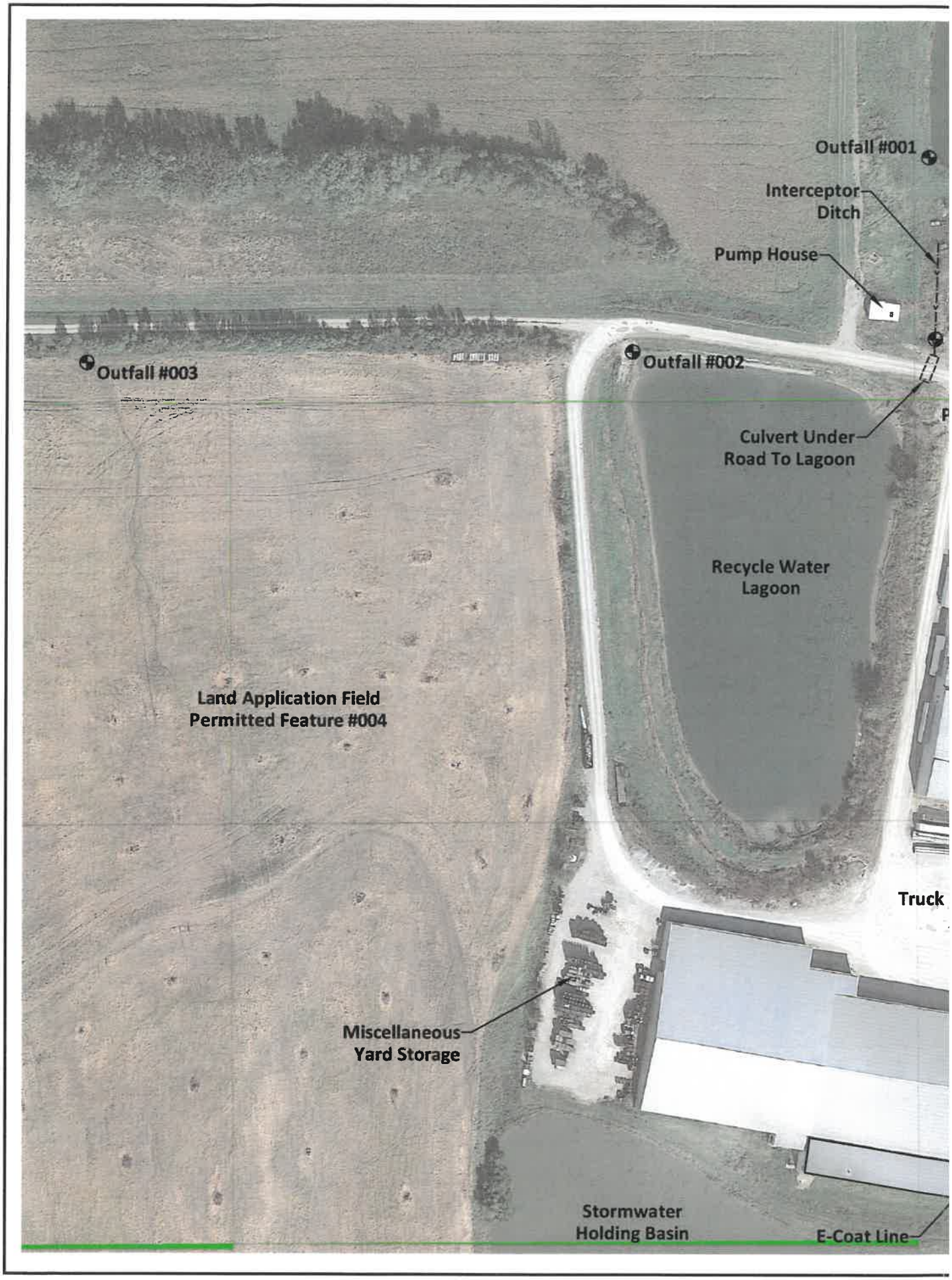
For modifications: https://magic.collectorsolutions.com/magic-ui/payments/mo-natural-resources/596

12. 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.

NAME AND OFFICIAL TITLE (TYPE OR PRINT)	TELEPHONE NUMBER WITH AREA CODE
Kevin Criten, President Operations	(660) 663-2185
SIGNATURE	DATE SIGNED
	8/25/22

MO 780-1479 (04-21)


Outfall #001
Interceptor Ditch
Pump House
Outfall #003
Outfall #002
Culvert Under Road To Lagoon
Recycle Water Lagoon
Land Application Field Permitted Feature #004
Truck
Miscellaneous Yard Storage
Stormwater Holding Basin
E-Coat Line

1. Interceptor ditch running north/south on west side of bone yard/fuel tank area.

2. Culvert on north side of Quick Avenue.

3. Culvert discharge point into Recycle Water Lagoon on south side of Quick Avenue.

4. View of bone yard/fuel tank area from Quick Avenue west of plant looking east. Ridge behind pump house building visible.

Midwest Environmental
CONSULTANTS
Sound Environmental Solutions

ap 40177

August 23, 2022

Missouri Department of Natural Resources
Water Protection Program
Water Pollution Control Branch
ATTN: Operating Permits Section
P.O. Box 176
Jefferson City, MO 65102-0176

Subject: Landmark Manufacturing Corporation, 28100 Quick Avenue, Gallatin, MO 64640
NPDES Permit MO-0113671, Permit Modifications

2009 E. McCarty Street
Suite 2
Jefferson City, MO 65101
voice: 573.636.9454
fax: 573.761.4200

1350 E. Kingsley St.
Suite E
Springfield, MO 65804
voice: 417.886.9200
fax: 417.886.9876

www.mecpc.com

Dear Sirs:

On behalf of Landmark Manufacturing Corporation, Midwest Environmental Consultants (MEC) submits this request for modifications to permit MO-0113671 to remove Outfall #005.

The Landmark property north of Quick Avenue, which includes a "bone yard" and bulk fuel tank area was not previously included in the facility permit and new Outfall #005 was added during renewal of this permit. The boneyard/fuel tank area and the entire plant area, slopes to the west. During our site visit on June 2, 2022, we attempted to identify the Outfall #005 discharge point so a sign could be placed. We noted that Landmark had constructed a ditch aligned north/south on the west side of the bone yard/fuel tank area. The ditch intercepts surface runoff and directs it to a culvert that conveys flow south beneath Quick Avenue and into the Recycle Water Lagoon (Permitted Feature #002). Photos are attached the interceptor ditch and culvert are attached.

Since runoff from the bone yard/fuel tank area (new Outfall #005) flows into the Recycle Water Lagoon (Permitted Feature #002) and would be governed by Outfall #002 effluent and monitoring requirements in Tables A-1, A-2, and A-3, we request that Outfall #005 be removed from the permit.

We also request that the inspection frequency of the no-discharge lagoons be changed. Under Section C. Special Condition 2(d), the required frequency of lagoon inspections is "weekly." Section D.2(a) requires that lagoons be inspected "monthly." We request that the weekly inspection frequency in Section C.2(d) be changed to monthly.

We believe that these requests meet the 40 CFR 122.63 definition of "Minor Modifications of Permits" under 122.63(e)(2) for deleting an outfall when discharge of pollutants is in accordance with permit limits. We are enclosing ¼ of the annual operating fee, which according to 10 CSR 20-6.011(2)(D)1 is $1,800.00, which would be $450.00.

Please call at (417) 886-9200 or email at blindsey@mecpc.com if you have any questions about this letter.

Sincerely,

Midwest Environmental Consultants

William B. Lindsey, P.E.
Project Principal