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-0111996
Owner:	MERIDIAN LAND COMPANY, LLC
Address:	17900 Veterans Memorial Pkwy, Foristell, MO 63348
Continuing Authority:	MERIDIAN LAND COMPANY, LLC
Address:	Same as above
Facility Name:	Eagle Ridge Landfill
Facility Address:	13100 Highway VV, Bowling Green, Missouri 63334
Legal Description:	See following page
UTM Coordinates:	See following page
Receiving Stream:	See following page
First Classified Stream and ID:	See following page
USGS Basin & Sub-watershed No.:	See following page

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

FACILITY DESCRIPTION

Active Municipal Solid Waste Landfill, etc.; SIC #4953; NAICS #562212. Facility has two non-discharging leachate basins. Leachate and sludge are hauled by tanker truck and is discharged to a permitted wastewater treatment facility. This facility does not require a certified wastewater operator per 10 CSR 20-9.030 as this facility is privately owned. Domestic wastewater is managed by sending to in a sub-surface system <3000 gallons/day.

Leachate cannot be discharged. Stormwater which has come into contact with leachate is considered leachate and cannot be discharged. Leachate, and stormwater which has come into contact with leachate, must be managed in accordance with the provisions contained in the Missouri Solid Waste Management Laws, regulations, and Sanitary Landfill Operating Permit; and Hazardous Waste Program (if applicable).

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

January 1, 2021
Effective Date

January 1, 2025
Modification Date

December 31, 2025
Expiration Date

John Hoke, Director, Water Protection Program

FACILITY DESCRIPTION (CONTINUED)

OUTFALL #001 – Eliminated during 2023 modification due to the construction of a new waste disposal cell.
Legal Description: Sec.02, T53N, R03W, Pike County
UTM Coordinates: X = 653769, Y = 4362586

OUTFALL #002 – Stormwater
Receives discharge from the south stormwater detention pond. Pond is equipped with skimmers. Drains approximately 52.5 acres.
Legal Description: Sec.02, T53N, R03W, Pike County
UTM Coordinates: X = 653892, Y = 4361910
Receiving Waterbody: Tributary to Gailey Branch
First Classified Waterbody and ID: Presumed Use Streams; (C) WBID# 5023
USGS Basin & Sub-watershed No.: Salt (07110007-0401)
Maximum Flow: 0.31 MGD (based on a 10-year, 24-hour storm event)

OUTFALL #003 – Stormwater
Receives stormwater from the east side of the landfill. Check dikes and riprap BMPs. Drains approximately 49 acres.
Legal Description: Sec.02, T53N, R03W, Pike County
UTM Coordinates: X = 654664, Y = 4362122
Receiving Waterbody: Tributary to Gailey Branch
First Classified Waterbody and ID: Presumed Use Streams; (C) WBID# 5023
USGS Basin & Sub-watershed No.: Salt (07110007-0401)
Maximum Flow: 0.29 MGD (based on a 10-year, 24-hour storm event)

OUTFALL #004 – Eliminated in last permit. Justification for removal of Outfall #004 indicates that this outfall does not include drainage from the active fill area including a haul road that is nearest to the outfall.
Legal Description: SW ¼, NW ¼, Sec. 2, T53N, R3W, Pike County
UTM Coordinates: X=653814, Y=4362201

OUTFALL #005 – Stormwater
Receives discharge from the north stormwater retention pond.
Legal Description: SW¼, NW¼, Sec.02, T53N, R03W, Pike County
UTM Coordinates: X = 653823, Y = 4362601
Receiving Waterbody: Tributary to Gailey Branch (C)
First Classified Waterbody and ID: Presumed Use Streams; (C) WBID# 5023
USGS Basin & Sub-watershed No.: Salt (07110007-0401)
Estimated Maximum Flow: 0.12 MGD (based on a 10-year, 24-hour storm event)

OUTFALL #006 – Eliminated during 2024 modification due to the construction of a new waste disposal cell.

OUTFALL #007 – Stormwater
Receives discharge from north stormwater retention pond. Drains approximately 12.5 acres.
Legal Description: Sec.02, T53N, R03W, Pike County
UTM Coordinates: X = 653823, Y = 4362601
Receiving Waterbody: Tributary to Gailey Branch (C)
First Classified Waterbody and ID: Presumed Use Streams; (C) WBID# 5023
USGS Basin & Sub-watershed No.: Salt (07110007-0401)
Estimated Maximum Flow: 0.32 MGD (based on a 10-year, 24-hour storm event)

OUTFALL #008 – Stormwater
Receives discharge from west stormwater retention pond. Drains approximately 7.7 acres.
Legal Description: Sec.02, T53N, R03W, Pike County
UTM Coordinates: X = 653499, Y = 4362482
Receiving Waterbody: Tributary to Gailey Branch (C)
First Classified Waterbody and ID: Presumed Use Streams; (C) WBID# 5023
USGS Basin & Sub-watershed No.: Salt (07110007-0401)
Estimated Maximum Flow: 0.32 MGD (based on a 10-year, 24-hour storm event)

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

OUTFALL, #002, #003, #005, #007 & #008 *Stormwater Only*	TABLE A-1 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 **January 1, 2021,** 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.
Precipitation	inches	*		-	once/quarter ◊	measured
CONVENTIONAL						
Biochemical Oxygen Demand$_5$ (BOD_5)	mg/L	**		45	once/quarter ◊	grab
Chemical Oxygen Demand	mg/L	**		90	once/quarter ◊	grab
Oil & Grease	mg/L	**		10	once/quarter ◊	grab
pH †	SU	6.5-9.0		-	once/quarter ◊	grab
Settleable Solids	mL/L/hr	**		1.5	once/quarter ◊	grab
Total Suspended Solids	mg/L	80		-	once/quarter ◊	grab
METALS						
Aluminum, Total Recoverable	µg/L	**		1,650	once/quarter ◊	grab
Iron, Total Recoverable	µg/L	**		4,000	once/quarter ◊	grab
Zinc, Total Recoverable	µg/L	**		162	once/quarter ◊	grab
NUTRIENTS						
Ammonia as N	mg/L	*		-	once/quarter ◊	grab
OTHER						
Benzene	µg/L	*		-	once/quarter ◊	grab
Chloride	mg/L	*		-	once/quarter ◊	grab
Chloride + Sulfate	mg/L	*		-	once/quarter ◊	grab
Sulfate	mg/L	*		-	once/quarter ◊	grab
MONITORING REPORTS SHALL BE SUBMITTED QUARTERLY; THE FIRST REPORT IS DUE APRIL 28, 2021. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						
LIMIT SET: A						
METALS						
Antimony, Total Recoverable	µg/L	*		-	once/year	grab
Arsenic, Total Recoverable	µg/L	*		-	once/year	grab
Beryllium, Total Recoverable	µg/L	*		-	once/year	grab
Cadmium, Total Recoverable	µg/L	*		-	once/year	grab
Chromium (III), Total Recoverable	µg/L	*		-	once/year	grab
Chromium (VI), Dissolved ‡‡	µg/L	*		-	once/year	grab
Copper, Total Recoverable	µg/L	*		-	once/year	grab
Lead, Total Recoverable	µg/L	*		-	once/year	grab
Mercury, Total Recoverable	µg/L	*		-	once/year	grab
Nickel, Total Recoverable	µg/L	*		-	once/year	grab
Selenium, Total Recoverable ††	µg/L	*		-	once/year	grab
Silver, Total Recoverable	µg/L	*		-	once/year	grab
Thallium, Total Recoverable ‡	µg/L	*		-	once/year	grab
MONITORING REPORTS SHALL BE SUBMITTED ANNUALLY; THE FIRST REPORT IS DUE JANUARY 28, 2022. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						

See Table Notes on Page 4

TABLE NOTES:

* Monitoring and reporting requirement only

** Monitoring and reporting requirement with benchmark. See Special Conditions for additional requirements.

⁂ At outfalls #002 and #005: Since the storm water basins have valves to control discharge, samples shall be collected during the first discharge of the quarter. An additional sample shall be collected any time either basin overflows the emergency outlet. Flow shall be estimated during the sampled discharge event each quarter. If a discharge does not occur within the reporting period, report as no discharge.

At outfall #003, #007, and #008: Samples shall be collected from a discharge resulting from a precipitation event greater than 0.1 inches in magnitude and occurring at least 72 hours from the previously measurable precipitation event. If a discharge does not occur within the reporting period, report as no discharge. The total amount of precipitation should be noted from the event from which the samples were collected.

† pH: the facility will report the minimum and maximum values; pH is not to be averaged.

†† This permit establishes monitoring for total recoverable selenium which has water quality standards below the most commonly used analytical method's detection limits. However, 40 CFR 136 indicates effluent characteristics can be effectively quantified using EPA approved method 200.9 or 3113B. These methods have detection limits of 0.6 µg/L and 2 µg/L respectively; either may be used to determine compliance with this permit. Alternate EPA approved methods may be used if they have reporting limits that are sufficiently sensitive and comparable to the methods listed above.

‡ This permit establishes monitoring for total recoverable thallium which has water quality standards below the most commonly used analytical method's detection limits. However, 40 CFR 136 indicates effluent characteristics can be effectively quantified using EPA approved method 200.9 or 200.8/3120B. Alternate EPA or ASTM approved methods may be used if they have reporting limits that are sufficiently sensitive and comparable to the methods listed above.

‡ ‡ This permit establishes monitoring for dissolved hexavalent chromium. This permit establishes the requirement to use Standard Method 3500-Cr C-2011 or newer to ensure data submitted to the Department conforms to the most sensitive method as required by Standard Conditions Part I Section A 4 and is analyzed within the required method holding times. Alternate EPA or ASTM approved methods may be used if they have reporting limits that are sufficiently sensitive and comparable to the methods listed above, and the samples remain within the necessary holding times.

◊ 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 above 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 unauthorized discharge was from an overflow from a no-discharge wastewater (leachate) basin, the report must include all records confirming operation and maintenance records documenting proper maintenance in accordance with condition (d) below.

C. SPECIAL CONDITIONS (continued)

(d) The facility shall adhere to the following minimum Best Management Practices (BMPs) for no-discharge wastewater (leachate) holding structures:
(1) To prevent unauthorized discharges, the no-discharge wastewater basin must be properly operated and maintained to contain all wastewater plus run-in and direct precipitation. 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. 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 lower.
(2) Weekly inspection of no-discharge wastewater basins shall occur. Inspection notes will be kept at the facility and made available to the Department upon request.
(3) The inspections will note any issues with the no-discharge structure and will record the level of liquid as indicated by the depth marker.

2. Electronic Discharge Monitoring Report (eDMR) Submission System
Per 40 CFR Part 127 National Pollutant Discharge Elimination System (NPDES) Electronic Reporting Rule, 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 about the NPDES program.
(a) eDMR Registration Requirements. The facility must register with the Department's eDMR system through the Missouri Gateway for Environmental Management (MoGEM) before the first report is due. 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. Regarding Standard Conditions Part I, Section B, #7, the eDMR system is currently the only Department approved reporting method for this permit unless a waiver is granted by the department. See paragraph (c) below.
(b) Electronic Submissions. To access the eDMR system, use the following link in your web browser: https://apps5.mo.gov/mogems/welcome.action. If you experience difficulties with using the eDMR system you may contact edmr@dnr.mo.gov or call 855-789-3889 or 573-526-2082 for assistance.
(c) Waivers from Electronic Reporting. The facility must electronically submit compliance monitoring data and reports unless a waiver is granted by the department in compliance with 40 CFR Part 127. Only facilities with an approved waiver request may submit monitoring data and reports on paper to the Department for the period the approved electronic reporting waiver is effective. Facilities may obtain an electronic reporting waiver by first submitting an eDMR Waiver Request Form: http://dnr.mo.gov/forms/780-2692-f.pdf. The department will either approve or deny this electronic reporting waiver request within 120 calendar days.

3. 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 should not be 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) published by the EPA in 2015 https://www.epa.gov/sites/production/files/2015-11/documents/swppp_guide_industrial_2015.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 (or 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. Throughout coverage under this permit, the facility must perform ongoing SWPPP review and revision to incorporate any site condition changes.
(1) Operational deficiencies must be corrected within seven (7) calendar days.
(2) Minor structural deficiencies must be corrected within fourteen (14) calendar days.
(3) Major structural deficiencies (deficiencies projected to take longer than 14 days to correct) must be reported as an uploaded attachment through the eDMR system with the DMRs.

C. SPECIAL CONDITIONS (continued)

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 an individual to be responsible 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.

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

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

(b) Ensure adequate provisions are provided to prevent surface water intrusion into the wastewater (leachate) storage basin, to divert stormwater runoff around the wastewater (leachate) storage basin, and to protect embankments from erosion.

(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 and 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) Provide good housekeeping practices on the site to keep trash from entry into waters of the state.

(1) The facility shall inspect the outfalls daily to ensure zero trash is found in or around the outfall. Any trash found will be collected and disposed of in a proper location.

(2) A log of inspections will be maintained with permit records.

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

(g) Remove sediment from stormwater sediment pond(s) no less than every ten years, or more frequently dependent on the amount of sediment received; sediment accumulated shall be no more than 20% total volume or as prescribed in the engineering design, whichever is less. Records must be retained since last cleanout.

(h) Facility shall inspect the site weekly for leachate outbreaks to ensure they are not discharging offsite and/or mingling with stormwater. If leachate outbreaks are found, they shall be repaired as soon as practicable. All new outbreaks since the previous inspection shall be reported to the Northeast Regional Office via email, to NERO@dnr.mo.gov. The report shall include the location of the outbreak (map), extent of outbreak and likelihood to reach waters of the state, remediation procedure, and expected remediation completion date. The report shall also include status of all other active leachate outbreak remediation activities.

5. Stormwater Benchmarks. This permit stipulates pollutant benchmarks applicable to your stormwater discharges.

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

(b) Any time a 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. If the efforts taken by the facility are not sufficient and subsequent exceedances of a benchmark occur, the facility must contact the Department if a benchmark value cannot be achieved. Failure to take corrective action to address a benchmark exceedance and failure to make measureable progress towards achieving the benchmarks is a permit violation.

C. SPECIAL CONDITIONS (continued)

6. Petroleum Secondary Containment.
   Before releasing water accumulated in petroleum secondary containment areas, it must be examined for hydrocarbon odor and presence of sheen to protect the general criteria found at 10 CSR 20-7.031(4).
   (a) If odor or sheen is found, the water shall not be discharged without treatment and shall be disposed of in accordance with legally approved methods, such as being sent to an accepting wastewater treatment facility.
   (b) If the facility wishes to discharge the accumulated stormwater with hydrocarbon odor or presence of sheen, the water shall be treated using an appropriate removal method. Following treatment and before release, the water shall be tested for oil and grease, benzene, toluene, ethylbenzene, and xylene using 40 CFR part 136 methods. All pollutant levels must be below the most protective, applicable standards for the receiving stream, found in 10 CSR 20-7.031 Table A before discharge is authorized. Records of all testing and treatment of water accumulated in secondary containment shall be available on demand to the Department. Electronic records retention is acceptable.

7. The full implementation of this operating permit, which includes implementation of any applicable schedules of compliance, shall constitute compliance with all applicable federal and state statutes and regulations in accordance with RSMo 644.051.16, and the CWA section 402(k); however, this permit may be reopened and modified, or alternatively revoked and reissued to comply with any applicable effluent standard or limitation issued or approved under Clean Water Act Sections 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 limited in the permit. This permit may be modified, revoked and reissued, or terminated for cause. 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.

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

9. 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.

10. The Department may require sampling and reporting as a result of illegal discharges from the site, compliance issues related to water quality concerns or BMP effectiveness, or evidence of off-site impacts from activities or discharges at the facility.

11. 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.

12. Changes in Discharges of Toxic Pollutant.
    In addition to the reporting requirements under 40 CFR 122.41(1), all existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Director as soon as they know or have reason to believe:
    (a) 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 that 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).

13. 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, Section A, #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.

C. SPECIAL CONDITIONS (continued)

(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).

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

15. The permittee is not required to procure a separate general permit (MO-RAxxx) for on-site land disturbance activities which discharge through outfalls authorized in this permit. Discharges must comply with the limits and conditions of this permit. If land disturbance activities discharge to any location other than through a permitted outfall, a separate MORA general permit may be required, or a modification of this operating permit.

16. This permit does not authorize 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. The facility must contact the U.S. Army Corps of Engineers (Corps) to determine if a CWA §404 Department of Army permit or §401 water quality certification is required for the project.

17. All records required by this permit may be maintained electronically per 432.255 RSMo.

18. 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 and Form C. If the form names have changed, then the facility should ensure they are submitting the correct forms as required by regulation.
(c) The facility may use the electronic submission system to submit the application to the Program, if available.
(d) This facility must submit all corrective action reports completed for the last permit term if a benchmark exceedance occurred.

D. 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 Sections 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
MODIFICATION STATEMENT OF BASIS
FOR
MO-0111996
EAGLE RIDGE LANDFILL

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. Changes found here supersede previous fact sheet determinations. The permit was revised as appropriate to reflect changes enumerated in this modification.

PART I. FACILITY INFORMATION

The facility's basic information has not changed; see original fact sheet.

PART II. MODIFICATION RATIONALE

This operating permit is hereby modified to reflect the removal of outfall #006 and the addition of two new stormwater outfalls, outfall #007 and #008. Due to the recent construction of Cell 12 at the facility, the existing sediment trap, outfall #006, will be eliminated since it was within the footprint of the new cell. Two new sediment ponds have been constructed which will receive stormwater runoff. No other changes were made at this time.

PART III. EFFLUENT LIMITS DETERMINATIONS

OUTFALL #007 & #008– STORMWATER OUTFALLS

EFFLUENT LIMITATIONS TABLE:

PARAMETERS	UNIT	DAILY MAXIMUM LIMIT	BENCH-MARK	PREVIOUS PERMIT LIMITS	MINIMUM SAMPLING FREQUENCY	REPORTING FREQUENCY	SAMPLE TYPE
PHYSICAL							
FLOW	MGD	*	-	NEW	ONCE/QUARTER	ONCE/QUARTER	24 HR. ESTIMATE
PRECIPITATION	inches	*	-	NEW	ONCE/QUARTER	ONCE/QUARTER	24 HR. TOT
CONVENTIONAL							
BOD_5	mg/L	**	45	NEW	ONCE/QUARTER	ONCE/QUARTER	GRAB
COD	mg/L	**	90	NEW	ONCE/QUARTER	ONCE/QUARTER	GRAB
OIL & GREASE	mg/L	**	10	NEW	ONCE/QUARTER	ONCE/QUARTER	GRAB
pH †	SU	6.5-9.0	-	NEW	ONCE/QUARTER	ONCE/QUARTER	GRAB
SETTLEABLE SOLIDS	mL/L/hr	**	1.5	NEW	ONCE/QUARTER	ONCE/QUARTER	GRAB
TSS	mg/L	80	-	NEW	ONCE/QUARTER	ONCE/QUARTER	GRAB
METALS							
ALUMINUM, TR	µg/L	**	1,650	*	ONCE/QUARTER	ONCE/QUARTER	GRAB
ANTIMONY, TR	µg/L	*	-	NEW	ONCE/YEAR	ONCE/YEAR	GRAB
ARSENIC, TR	µg/L	*	-	NEW	ONCE/YEAR	ONCE/YEAR	GRAB
BERYLLIUM, TR	µg/L	*	-	NEW	ONCE/YEAR	ONCE/YEAR	GRAB
CADMIUM, TR	µg/L	*	-	NEW	ONCE/YEAR	ONCE/YEAR	GRAB
CHROMIUM (III), TR	µg/L	*	-	NEW	ONCE/YEAR	ONCE/YEAR	GRAB
CHROMIUM (VI), DISS	µg/L	*	-	NEW	ONCE/YEAR	ONCE/YEAR	GRAB
COPPER, TR	µg/L	*	-	NEW	ONCE/YEAR	ONCE/YEAR	GRAB
IRON, TR	µg/L	**	4,000	NEW	ONCE/QUARTER	ONCE/QUARTER	GRAB
LEAD, TR	µg/L	*	-	NEW	ONCE/YEAR	ONCE/YEAR	GRAB
MERCURY, TR	µg/L	*	-	NEW	ONCE/YEAR	ONCE/YEAR	GRAB

NICKEL, TR	µg/L	*	-	NEW	ONCE/YEAR	ONCE/YEAR	GRAB
SELENIUM, TR	µg/L	*	-	NEW	ONCE/YEAR	ONCE/YEAR	GRAB
SILVER, TR	µg/L	*	-	NEW	ONCE/YEAR	ONCE/YEAR	GRAB
THALLIUM, TR	µg/L	*	-	NEW	ONCE/YEAR	ONCE/YEAR	GRAB
ZINC, TR	µg/L	**	162	NEW	ONCE/QUARTER	ONCE/QUARTER	GRAB
NUTRIENTS							
AMMONIA AS N	mg/L	*	-	NEW	ONCE/QUARTER	ONCE/QUARTER	GRAB
OTHER							
BENZENE	µg/L	*	-	NEW	ONCE/QUARTER	ONCE/QUARTER	GRAB
CHLORIDE	mg/L	*	-	NEW	ONCE/QUARTER	ONCE/QUARTER	GRAB
CHLORIDE + SULFATE	mg/L	*	-	NEW	ONCE/QUARTER	ONCE/QUARTER	GRAB
SULFATE	mg/L	*	-	NEW	ONCE/QUARTER	ONCE/QUARTER	GRAB

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

DERIVATION AND DISCUSSION OF LIMITS:

PHYSICAL:

Flow
In accordance with [40 CFR Part 122.44(i)(1)(ii)] the volume of effluent discharged from each outfall is needed to ensure compliance with permitted effluent limitations. If the facility is unable to obtain estimated effluent flow, then it is the responsibility of the facility to inform the Department. The facility will report the estimated total flow in millions of gallons per day (MGD), quarterly monitoring continued from previous permit.

Precipitation
Monitoring only requirement; measuring the amount of precipitation [(10 CSR 20-6.200(2)(C)1.E(VI)] during an event is necessary to ensure adequate stormwater management exists at the site. Knowing the amount of potential stormwater runoff can provide the facility a better understanding of any specific control measures be employed to ensure protection of water quality. The facility will provide the 24-hour accumulation value of precipitation from the day of sampling the other parameters.

CONVENTIONAL:

Biochemical Oxygen Demand - 5 Day (BOD_5)
Quarterly monitoring, with a benchmark of 45 mg/L. The previous permit had a daily maximum limit of 45 mg/L. The permit wrier reviewed DMR data for the site and determined no reasonable potential for exceeding narrative water quality standards due to this pollutant, therefore the limitation was replaced with a technology-based benchmark. The benchmark is believed to be achievable by landfill sites operating typical BMPs. This site had data below this benchmark in the previous permit cycle. BOD is a known pollutant of concern at landfills. It is found in the ELG at 40 CFR part 445.

Chemical Oxygen Demand (COD)
Quarterly monitoring with 90 mg/L daily maximum benchmark. The previous permit required a daily maximum limit of 90 mg/L. The permit wrier reviewed DMR data for the site and determined no reasonable potential for exceeding narrative water quality standards due to this pollutant, therefore the limitation was replaced with a technology-based benchmark. The benchmark is believed to be achievable by landfill sites operating typical BMPs. This site had data below 45 mg/L in the previous permit cycle. COD is a pollutant of concern at landfills and in stormwater in general. There is no numeric water quality standard for COD; however, increased oxygen demand may impact instream water quality. COD is also used as an indicator parameter. Monitoring allows the facility to identify increases in COD that may indicate materials 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 benchmark value falls within the range of values implemented in other landfill permits and is achievable through proper BMP controls.

Oil & Grease
Quarterly monitoring with a daily maximum benchmark of 10 mg/L. The previous permit had a daily maximum limit of 15 mg/L. The permit writer reviewed available DMR data for the site and determined no reasonable potential to exceed water quality

standards, either numeric or narrative, therefore limitations were removed and replaced with a technology-based benchmark. There was once exceedance of the water quality standard before upgrades were made to the site; however, since the upgrades, the site has experienced no further exceedances. Oil and grease is considered a conventional pollutant, and is a known pollutant of concern at landfills (especially those with heavy truck and machinery traffic), and in industrial stormwater in general. Oil and grease is a comprehensive test which measures for gasoline, diesel, crude oil, creosote, kerosene, heating oils, heavy fuel oils, lubricating oils, waxes, and some asphalt and pitch. The test can also detect some volatile organics such as benzene, toluene, ethylbenzene, or toluene, but these constituents are often lost during testing due to their boiling points. It is recommended to perform separate testing for these constituents if they are a known pollutant of concern at the site, i.e. aquatic life toxicity or human health is a concern. Results do not allow for separation of specific pollutants within the test, they are reported, totaled, as "oil and grease". Per 10 CSR 20-7.031 Table A1: *Criteria for Designated Uses*; 10 mg/L is the standard for protection of aquatic life. This standard will also be used to protect the general criteria found at 10 CSR 20-7.031(4).
Ten mg/L is the level at which sheen is expected to form on receiving waters. Oils and greases of different densities will possibly form sheen or unsightly bottom deposits at levels which vary from 10 mg/L. To protect the general criteria, it is the responsibility of the facility to visually observe the discharge and receiving waters for sheen or bottom deposits. The benchmark is achievable through proper operational and maintenance of BMPs and falls within the range of values implemented in other permits having similar industrial activities.

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. The stormwater at the site is variable in pH, limitations are appropriate as the stormwater has the potential to violate water quality. pH is a typical water quality indicator and maintenance of pH in the limited range will maintain the use designations of the receiving streams. The limit is achievable through operation of standard BMPs and prevention of contamination of stormwater by leachate.

Settleable Solids (SS)
Quarterly monitoring with a daily maximum benchmark of 1.5 mL/L/hour. The previous permit required a daily maximum limit of 1.5 mL/L/hr. The permit writer reviewed the data submitted by the site and determined no reasonable potential for this parameter to exceed narrative water quality standards; therefore, limitations were removed and replaced with a technology-based benchmark. Solids are one of the primary pollutants of concern at landfills due to the industrial activities taking place, including maintaining the active face, maintaining daily and other cover, and other land disturbance-based activities. There is no numeric water quality standard for SS; however, sediment discharges can negatively impact aquatic life habitat. Settleable solids are also a valuable indicator parameter. Solids monitoring allows the facility to identify increases in sediment and solids may indicate uncontrolled materials leaving the site. The benchmark value falls within the range of values implemented in other permits having similar industrial activities.

Total Suspended Solids (TSS)
Quarterly monitoring with a daily maximum limit of 80 mg/L, continued from the previous permit. The permit writer reviewed available DMR data for the site and determined reasonable potential to impact narrative water quality standards due to the exceedances of the permit limit in the previous permit cycle. The permit writer notes the data has improved since the installation of the new BMP measures; however, exceedances of the permitted limit still occurred. 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 benchmark 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:

Aluminum, Total Recoverable
Quarterly monitoring with a benchmark of 1,650 µg/L. The previous permit required monitoring only. DMR data showed the site has highly variable aluminum numbers, ranging from 90 µg/L up to 5,100 µg/L since the addition of the new BMP measures. Prior to the addition of the BMP measures, the site had data ranging up to 8,900 µg/L. The data improved on average by over 1,500 µg/L at outfall #001, 1,900 µg/L at outfall #002, and 1,400 µg/L at outfall #003. While this shows substantial improvement, the site should still be considering methods to improve the discharge data. The benchmark applied to the outfalls was set at the 99th percentile of the data for outfall #003. Outfall #003 was the best performing outfall at the site since the addition of the upgraded BMPs. The site should consider sources of aluminum in the discharge and consider BMP methods to remove it. Aluminum is found in a wide variety of consumer products and as an alloy in many metals. It is also naturally occurring in soils and can be found adsorbed to solids. For the previous modification, the facility supplied data indicating a large proportion of the aluminum is found in the total recoverable fraction, with much less in the more bioavailable dissolved fraction. For this reason, the permit writer does not believe limitations are necessary at this time to protect aquatic life in the receiving stream; however,

measures should be taken to reduce aluminum in the discharge and allow for incremental improvements in aluminum discharges at the site.

Iron, Total Recoverable
Quarterly monitoring with a benchmark of 4,000 µg/L. The previous permit required a benchmark of 1,000 µg/L. The permit writer used best professional judgment to increase the benchmark on this parameter to be in line with other landfill permits. 4,000 µg/L is considered to be typical and achievable at landfill sites. Iron is a component of leachate and is also naturally occurring in soils and thus may be a component of total suspended solids.

Zinc, Total Recoverable
Quarterly monitoring with a benchmark of 162 µg/L. The previous permit required annual monitoring only. The permit writer used best professional judgment to increase monitoring to quarterly due to variability in the data.
Quarterly monitoring will more accurately capture variations in discharges at the site. Zinc is a known pollutant of concern at landfills and is found as a component of leachate, as well as a naturally occurring component of soils. As it is found in soil, it may be adsorbed to suspended solids and transported to the outfall in this manner. The benchmark is set to the 99th percentile of available DMR data, meaning it is achievable at the site 99% of the time.

Antimony, Total Recoverable; Arsenic, Total Recoverable; Beryllium, Total Recoverable; Cadmium, Total Recoverable; Lead Total Recoverable; Selenium, Total Recoverable; Thallium, Total Recoverable
Annual monitoring. The previous permit required quarterly monitoring with benchmarks for these pollutants; however, the permit writer assessed the individual data and did not determine reasonable potential to exceed water quality standards for any of these parameters. The data consistently showed low values compared to the relevant water quality standards found in 10 CSR 20-7.031. Due to the consistency of the data and the lack of reasonable potential, the permit writer determined annual monitoring to be sufficient for this parameter. These are known pollutants of concern at landfills and are found in a variety of consumer products which may be discarded, additionally they are a known component of leachate; therefore, monitoring is continued.

Chromium (III), Total Recoverable; Chromium (VI) Dissolved; Copper, Total Recoverable; Mercury Total Recoverable; Nickel, Total Recoverable
Annual Monitoring, continued from the previous permit. DMR data continues to indicate no reasonable potential for these pollutants. Monitoring is continued as these are known pollutants of concern at landfills and are found in a variety of consumer products which may be discarded, additionally they are a known component of landfill leachate at many sites.

NUTRIENTS:

Ammonia, Total as Nitrogen
Quarterly monitoring, continued from the previous permit. There were no values that indicated reasonable potential to exceed acute water quality standards in stream reported in the previous permit cycle. Ammonia is a pollutant of concern in landfill leachate. Its toxicity is dependent on temperature, therefore quarterly monitoring is required to get the full range of seasonal changes for the parameter.

OTHER:

Benzene
Quarterly monitoring, continued from the previous permit. Benzene is a pollutant of concern at sites with heavy construction and truck traffic. It is also a component of leachate and can be found in nearly all petroleum-based products. It is considered a good indicator of petroleum discharges at a site; therefore, monitoring is continued. The previous permit required a benchmark; however, no values reported by the facility approached the benchmark value, so it is superfluous and therefore removed.

Ethylbenzene, Toluene
Monitoring for these pollutants is removed for these pollutants as they show no reasonable potential to exceed water quality standards. Data indicates they are not pollutants of concern at this site. Monitoring for benzene is continued as an indicator for petroleum discharges, therefore monitoring for these pollutants is not necessary at this time. Should petroleum discharges from the site be verified in future permit cycles, these pollutants may require monitoring to ensure protection of the water quality standards.

Chloride
Quarterly monitoring only, continued from the previous permit. Chloride is a pollutant of concern in landfill leachate. Additionally, monitoring for chloride is required to comply with the chloride + sulfate parameter below.

Sulfate
Quarterly monitoring required to determine chloride + sulfate below. The facility shall sample and independently report the analytical value of sulfate. Reporting this parameter is new to this permit; however, monitoring was already required to comply with chloride + sulfate.

Chloride + Sulfate
Quarterly monitoring. The previous permit had a limit of 1,000 mg/L for this parameter; however, all data at this site does not indicate reasonable potential to exceed water quality standards, and a technology limit is infeasible as there is no readily available treatment for chloride and sulfate in stormwater. Monitoring is continued as this is a known pollutant of concern at landfill sites.

PART IV. ADMINISTRATIVE REQUIREMENTS

On the basis of preliminary staff review, and utilizing current applicable standards and regulations, the Department, as administrative agent for the Missouri Clean Water Commission, proposes to issue this permit subject to specified effluent limitations, schedules, and special conditions. The changes contained herein do not require a public notice comment period per 10 CSR 20-6.020. The proposed determinations are tentative pending public comment.

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

- ✓ The Public Notice period for this operating permit started on October 11, 2024, and ended on November 11, 2024. No comments were received.

DATE OF FACT SHEET: JULY 29, 2024

COMPLETED BY:
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MISSOURI DEPARTMENT OF NATURAL RESOURCES
MODIFICATION STATEMENT OF BASIS
FOR
MO-0111996
EAGLE RIDGE LANDFILL

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. Changes found here supersede previous fact sheet determinations. The permit was revised as appropriate to reflect changes enumerated in this modification.

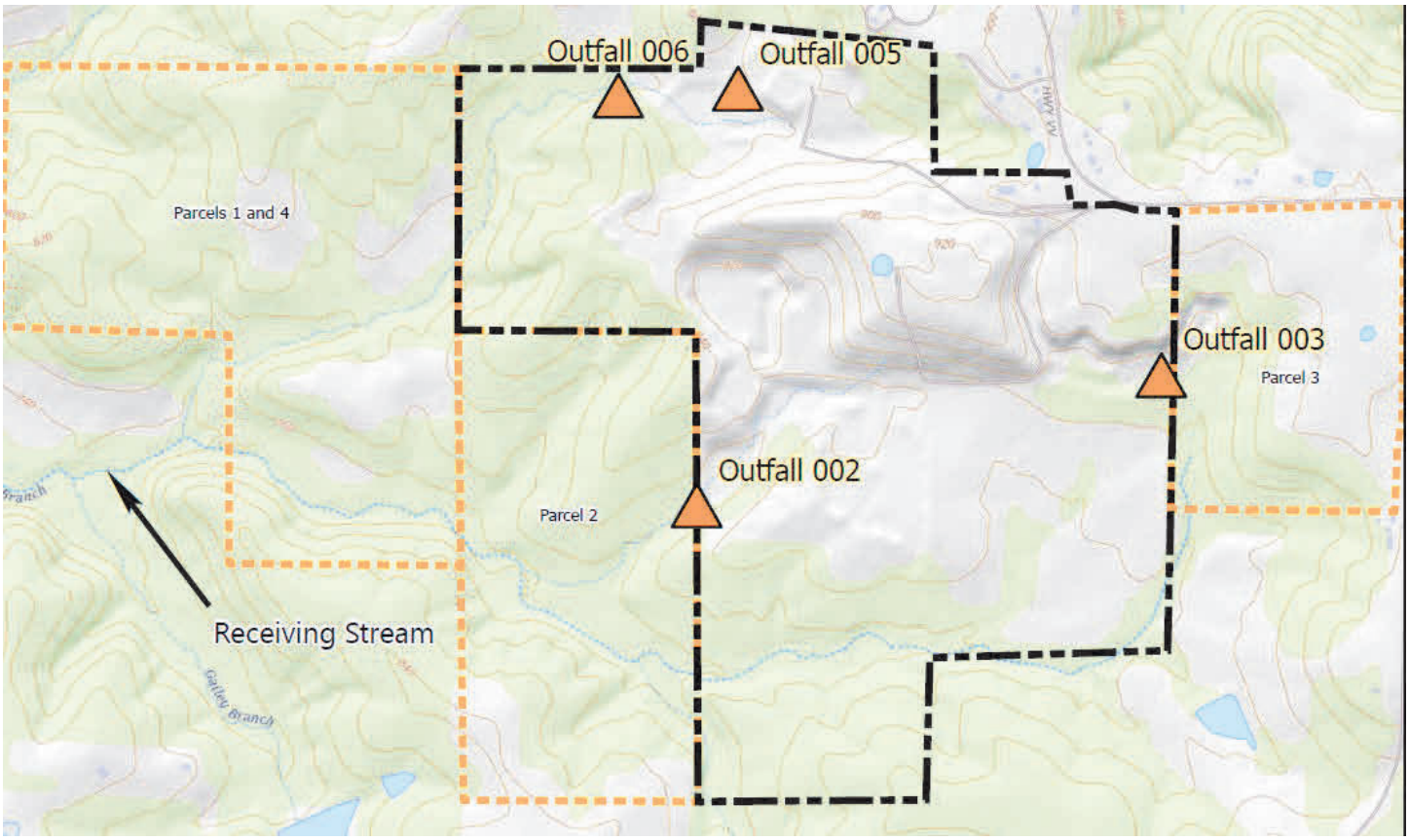
PART I. FACILITY INFORMATION

The facility's basic information has not changed; see original fact sheet.

PERMITTED FEATURES TABLE:

OUTFALL	AVERAGE FLOW	MAXIMUM FLOW	TREATMENT LEVEL	EFFLUENT TYPE
#002	dependent on precipitation	2.44 MGD	BMPs, sedimentation	landfill stormwater
#003	dependent on precipitation	1.4 MGD	BMPs	landfill stormwater
#005	dependent on precipitation	0.12 MGD	BMPs, sedimentation	landfill stormwater
#006	dependent on precipitation	0.09 MGD	BMPs, sedimentation	landfill stormwater

FACILITY MAP:



PART II. MODIFICATION RATIONALE

This operating permit is hereby modified to reflect the removal of outfall #001 and the addition of two new stormwater outfalls, outfall #005 and #006. Due to the recent construction of Cell 11 at the facility the northern sediment pond was abandoned since it was within the footprint of the new cell. A new sediment pond has been constructed that receives stormwater runoff from the northern portion of the landfill and will discharge stormwater through a new outfall, designated Outfall #005. A temporary sediment trap has also been constructed that receives runoff from the northwestern portion of the landfill and will discharge through the new outfall designated, Outfall #006. The sediment trap will remain until Cell 12 is built, which is anticipated to occur in 2024. No other changes were made at this time.

PART III. EFFLUENT LIMITS DETERMINATIONS

OUTFALL #005 & #006– STORMWATER OUTFALLS

EFFLUENT LIMITATIONS TABLE:

PARAMETERS	UNIT	DAILY MAXIMUM LIMIT	BENCH-MARK	PREVIOUS PERMIT LIMITS	MINIMUM SAMPLING FREQUENCY	REPORTING FREQUENCY	SAMPLE TYPE
PHYSICAL							
FLOW	MGD	*	-	NEW	ONCE/QUARTER	ONCE/QUARTER	24 HR. ESTIMATE
PRECIPITATION	inches	*	-	NEW	ONCE/QUARTER	ONCE/QUARTER	24 HR. TOT
CONVENTIONAL							
BOD_5	mg/L	**	45	NEW	ONCE/QUARTER	ONCE/QUARTER	GRAB
COD	mg/L	**	90	NEW	ONCE/QUARTER	ONCE/QUARTER	GRAB
OIL & GREASE	mg/L	**	10	NEW	ONCE/QUARTER	ONCE/QUARTER	GRAB
pH †	SU	6.5-9.0	-	NEW	ONCE/QUARTER	ONCE/QUARTER	GRAB
SETTLEABLE SOLIDS	mL/L/hr	**	1.5	NEW	ONCE/QUARTER	ONCE/QUARTER	GRAB
TSS	mg/L	80	-	NEW	ONCE/QUARTER	ONCE/QUARTER	GRAB
METALS							
ALUMINUM, TR	µg/L	**	1,650	*	ONCE/QUARTER	ONCE/QUARTER	GRAB
ANTIMONY, TR	µg/L	*	-	NEW	ONCE/YEAR	ONCE/YEAR	GRAB
ARSENIC, TR	µg/L	*	-	NEW	ONCE/YEAR	ONCE/YEAR	GRAB
BERYLLIUM, TR	µg/L	*	-	NEW	ONCE/YEAR	ONCE/YEAR	GRAB
CADMIUM, TR	µg/L	*	-	NEW	ONCE/YEAR	ONCE/YEAR	GRAB
CHROMIUM (III), TR	µg/L	*	-	NEW	ONCE/YEAR	ONCE/YEAR	GRAB
CHROMIUM (VI), DISS	µg/L	*	-	NEW	ONCE/YEAR	ONCE/YEAR	GRAB
COPPER, TR	µg/L	*	-	NEW	ONCE/YEAR	ONCE/YEAR	GRAB
IRON, TR	µg/L	**	4,000	NEW	ONCE/QUARTER	ONCE/QUARTER	GRAB
LEAD, TR	µg/L	*	-	NEW	ONCE/YEAR	ONCE/YEAR	GRAB
MERCURY, TR	µg/L	*	-	NEW	ONCE/YEAR	ONCE/YEAR	GRAB
NICKEL, TR	µg/L	*	-	NEW	ONCE/YEAR	ONCE/YEAR	GRAB
SELENIUM, TR	µg/L	*	-	NEW	ONCE/YEAR	ONCE/YEAR	GRAB
SILVER, TR	µg/L	*	-	NEW	ONCE/YEAR	ONCE/YEAR	GRAB
THALLIUM, TR	µg/L	*	-	NEW	ONCE/YEAR	ONCE/YEAR	GRAB
ZINC, TR	µg/L	**	162	NEW	ONCE/QUARTER	ONCE/QUARTER	GRAB
NUTRIENTS							
AMMONIA AS N	mg/L	*	-	NEW	ONCE/QUARTER	ONCE/QUARTER	GRAB
OTHER							
BENZENE	µg/L	*	-	NEW	ONCE/QUARTER	ONCE/QUARTER	GRAB

CHLORIDE	mg/L	*	-	NEW	ONCE/QUARTER	ONCE/QUARTER	GRAB
CHLORIDE + SULFATE	mg/L	*	-	NEW	ONCE/QUARTER	ONCE/QUARTER	GRAB
SULFATE	mg/L	*	-	NEW	ONCE/QUARTER	ONCE/QUARTER	GRAB

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

DERIVATION AND DISCUSSION OF LIMITS:

PHYSICAL:

Flow
In accordance with [40 CFR Part 122.44(i)(1)(ii)] the volume of effluent discharged from each outfall is needed to ensure compliance with permitted effluent limitations. If the facility is unable to obtain estimated effluent flow, then it is the responsibility of the facility to inform the Department. The facility will report the estimated total flow in millions of gallons per day (MGD), quarterly monitoring continued from previous permit.

Precipitation
Monitoring only requirement; measuring the amount of precipitation [(10 CSR 20-6.200(2)(C)1.E(VI)] during an event is necessary to ensure adequate stormwater management exists at the site. Knowing the amount of potential stormwater runoff can provide the facility a better understanding of any specific control measures be employed to ensure protection of water quality. The facility will provide the 24 hour accumulation value of precipitation from the day of sampling the other parameters.

CONVENTIONAL:

Biochemical Oxygen Demand - 5 Day (BOD_5)
Quarterly monitoring, with a benchmark of 45 mg/L. The previous permit had a daily maximum limit of 45 mg/L. The permit wrier reviewed DMR data for the site and determined no reasonable potential for exceeding narrative water quality standards due to this pollutant, therefore the limitation was replaced with a technology based benchmark. The benchmark is believed to be achievable by landfill sites operating typical BMPs. This site had data below this benchmark in the previous permit cycle. BOD is a known pollutant of concern at landfills. It is found in the ELG at 40 CFR part 445.

Chemical Oxygen Demand (COD)
Quarterly monitoring with 90 mg/L daily maximum benchmark. The previous permit required a daily maximum limit of 90 mg/L. The permit wrier reviewed DMR data for the site and determined no reasonable potential for exceeding narrative water quality standards due to this pollutant, therefore the limitation was replaced with a technology based benchmark. The benchmark is believed to be achievable by landfill sites operating typical BMPs. This site had data below 45 mg/L in the previous permit cycle. COD is a pollutant of concern at landfills and in stormwater in general. There is no numeric water quality standard for COD; however, increased oxygen demand may impact instream water quality. COD is also used as an indicator parameter. Monitoring allows the facility to identify increases in COD that may indicate materials 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 benchmark value falls within the range of values implemented in other landfill permits and is achievable through proper BMP controls.

Oil & Grease
Quarterly monitoring with a daily maximum benchmark of 10 mg/L. The previous permit had a daily maximum limit of 15 mg/L. The permit writer reviewed available DMR data for the site and determined no reasonable potential to exceed water quality standards, either numeric or narrative, therefore limitations were removed and replaced with a technology based benchmark. There was once exceedance of the water quality standard before upgrades were made to the site; however, since the upgrades, the site has experienced no further exceedances. Oil and grease is considered a conventional pollutant, and is a known pollutant of concern at landfills (especially those with heavy truck and machinery traffic), and in industrial stormwater in general. Oil and grease is a comprehensive test which measures for gasoline, diesel, crude oil, creosote, kerosene, heating oils, heavy fuel oils, lubricating oils, waxes, and some asphalt and pitch. The test can also detect some volatile organics such as benzene, toluene, ethylbenzene, or toluene, but these constituents are often lost during testing due to their boiling points. It is recommended to perform separate testing for these constituents if they are a known pollutant of concern at the site, i.e. aquatic life toxicity or human health is a concern. Results do not allow for separation of specific pollutants within the test, they are reported, totaled, as "oil and grease". Per 10 CSR 20-7.031 Table A1: *Criteria for Designated Uses*; 10 mg/L is the standard for protection of aquatic life. This standard will also be used to protect the general criteria found at 10 CSR 20-7.031(4).

Ten mg/L is the level at which sheen is expected to form on receiving waters. Oils and greases of different densities will possibly form sheen or unsightly bottom deposits at levels which vary from 10 mg/L. To protect the general criteria, it is the responsibility of the facility to visually observe the discharge and receiving waters for sheen or bottom deposits. The benchmark is achievable through proper operational and maintenance of BMPs and falls within the range of values implemented in other permits having similar industrial activities.

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. The stormwater at the site is variable in pH, limitations are appropriate as the stormwater has the potential to violate water quality. pH is a typical water quality indicator and maintenance of pH in the limited range will maintain the use designations of the receiving streams. The limit is achievable through operation of standard BMPs and prevention of contamination of stormwater by leachate.

Settleable Solids (SS)

Quarterly monitoring with a daily maximum benchmark of 1.5 mL/L/hour. The previous permit required a daily maximum limit of 1.5 mL/L/hr. The permit writer reviewed the data submitted by the site and determined no reasonable potential for this parameter to exceed narrative water quality standards; therefore, limitations were removed and replaced with a technology based benchmark. Solids are one of the primary pollutants of concern at landfills due to the industrial activities taking place, including maintaining the active face, maintaining daily and other cover, and other land disturbance based activities. There is no numeric water quality standard for SS; however, sediment discharges can negatively impact aquatic life habitat. Settleable solids are also a valuable indicator parameter. Solids monitoring allows the facility to identify increases in sediment and solids may indicate uncontrolled materials leaving the site. The benchmark value falls within the range of values implemented in other permits having similar industrial activities.

Total Suspended Solids (TSS)

Quarterly monitoring with a daily maximum limit of 80 mg/L, continued from the previous permit. The permit writer reviewed available DMR data for the site and determined reasonable potential to impact narrative water quality standards due to the exceedances of the permit limit in the previous permit cycle. The permit writer notes the data has improved since the installation of the new BMP measures; however, exceedances of the permitted limit still occurred. 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 benchmark 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:

Aluminum, Total Recoverable

Quarterly monitoring with a benchmark of 1,650 µg/L. The previous permit required monitoring only. DMR data showed the site has highly variable aluminum numbers, ranging from 90 µg/L up to 5,100 µg/L since the addition of the new BMP measures. Prior to the addition of the BMP measures, the site had data ranging up to 8,900 µg/L. The data improved on average by over 1,500 µg/L at outfall #001, 1,900 µg/L at outfall #002, and 1,400 µg/L at outfall #003. While this shows substantial improvement, the site should still be considering methods to improve the discharge data. The benchmark applied to the outfalls was set at the 99th percentile of the data for outfall #003. Outfall #003 was the best performing outfall at the site since the addition of the upgraded BMPs. The site should consider sources of aluminum in the discharge and consider BMP methods to remove it. Aluminum is found in a wide variety of consumer products and as an alloy in many metals. It is also naturally occurring in soils, and can be found adsorbed to solids. For the previous modification, the facility supplied data indicating a large proportion of the aluminum is found in the total recoverable fraction, with much less in the more bioavailable dissolved fraction. For this reason, the permit writer does not believe limitations are necessary at this time to protect aquatic life in the receiving stream; however, measures should be taken to reduce aluminum in the discharge and allow for incremental improvements in aluminum discharges at the site.

Iron, Total Recoverable

Quarterly monitoring with a benchmark of 4,000 µg/L. The previous permit required a benchmark of 1,000 µg/L. The permit writer used best professional judgment to increase the benchmark on this parameter to be in line with other landfill permits. 4,000 µg/L is considered to be typical and achievable at landfill sites. Iron is a component of leachate and is also naturally occurring in soils and thus may be a component of total suspended solids.

Zinc, Total Recoverable

Quarterly monitoring with a benchmark of 162 µg/L. The previous permit required annual monitoring only. The permit writer used best professional judgment to increase monitoring to quarterly due to variability in the data.

Quarterly monitoring will more accurately capture variations in discharges at the site. Zinc is a known pollutant of concern at landfills and is found as a component of leachate, as well as a naturally occurring component of soils. As it is found in soil, it may be adsorbed to suspended solids and transported to the outfall in this manner. The benchmark is set to the 99th percentile of available DMR data, meaning it is achievable at the site 99% of the time.

Antimony, Total Recoverable; Arsenic, Total Recoverable; Beryllium, Total Recoverable; Cadmium, Total Recoverable; Lead Total Recoverable; Selenium, Total Recoverable; Thallium, Total Recoverable
Annual monitoring. The previous permit required quarterly monitoring with benchmarks for these pollutants; however, the permit writer assessed the individual data and did not determine reasonable potential to exceed water quality standards for any of these parameters. The data consistently showed low values compared to the relevant water quality standards found in 10 CSR 20-7.031. Due to the consistency of the data and the lack of reasonable potential, the permit writer determined annual monitoring to be sufficient for this parameter. These are known pollutants of concern at landfills and are found in a variety of consumer products which may be discarded, additionally they are a known component of leachate; therefore, monitoring is continued.

Chromium (III), Total Recoverable; Chromium (VI) Dissolved; Copper, Total Recoverable; Mercury Total Recoverable; Nickel, Total Recoverable
Annual Monitoring, continued from the previous permit. DMR data continues to indicate no reasonable potential for these pollutants. Monitoring is continued as these are known pollutants of concern at landfills and are found in a variety of consumer products which may be discarded, additionally they are a known component of landfill leachate at many sites.

NUTRIENTS:

Ammonia, Total as Nitrogen
Quarterly monitoring, continued from the previous permit. There were no values that indicated reasonable potential to exceed acute water quality standards in stream reported in the previous permit cycle. Ammonia is a pollutant of concern in landfill leachate. Its toxicity is dependent on temperature, therefore quarterly monitoring is required to get the full range of seasonal changes for the parameter.

OTHER:

Benzene
Quarterly monitoring, continued from the previous permit. Benzene is a pollutant of concern at sites with heavy construction and truck traffic. It is also a component of leachate, and can be found in nearly all petroleum based products. It is considered a good indicator of petroleum discharges at a site, therefore monitoring is continued. The previous permit required a benchmark; however, no values reported by the facility approached the benchmark value, so it is superfluous and therefore removed.

Ethylbenzene, Toluene
Monitoring for these pollutants is removed for these pollutants as they show no reasonable potential to exceed water quality standards. Data indicates they are not pollutants of concern at this site. Monitoring for benzene is continued as an indicator for petroleum discharges, therefore monitoring for these pollutants is not necessary at this time. Should petroleum discharges from the site be verified in future permit cycles, these pollutants may require monitoring to ensure protection of the water quality standards.

Chloride
Quarterly monitoring only, continued from the previous permit. Chloride is a pollutant of concern in landfill leachate. Additionally, monitoring for chloride is required to comply with the chloride + sulfate parameter below.

Sulfate
Quarterly monitoring required to determine chloride + sulfate below. The facility shall sample and independently report the analytical value of sulfate. Reporting this parameter is new to this permit; however, monitoring was already required to comply with chloride + sulfate.

Chloride + Sulfate
Quarterly monitoring. The previous permit had a limit of 1,000 mg/L for this parameter; however, all data at this site does not indicate reasonable potential to exceed water quality standards, and a technology limit is infeasible as there is no readily available treatment for chloride and sulfate in stormwater. Monitoring is continued as this is a known pollutant of concern at landfill sites.

PART IV. ADMINISTRATIVE REQUIREMENTS

On the basis of preliminary staff review, and utilizing current applicable standards and regulations, the Department, as administrative agent for the Missouri Clean Water Commission, proposes to issue this permit subject to specified effluent limitations, schedules, and special conditions. The changes contained herein do not require a public notice comment period per 10 CSR 20-6.020. The proposed determinations are tentative pending public comment.

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

✓ The Public Notice period for this operating permit began on May 26, 2023 and ended June 26, 2023. No comments were received.

DATE OF FACT SHEET: APRIL 20, 2023

COMPLETED BY:
KYLE O'ROURKE, ENVIRONMENTAL SCIENTIST
MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM
OPERATING PERMITS SECTION - INDUSTRIAL UNIT
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MISSOURI DEPARTMENT OF NATURAL RESOURCES
FACT SHEET
FOR THE PURPOSE OF RENEWAL
OF
MO-0111996
EAGLE RIDGE LANDFILL

The Federal Water Pollution Control Act ("Clean Water Act" Section 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 (Section 301 of the "Clean Water Act"). After a permit is obtained, a discharge not in compliance with all permit terms and conditions is unlawful. Missouri State Operating Permits (MSOPs) are issued by the Director of the Missouri Department of Natural Resources (Department) under an approved program, operating in accordance with federal and state laws (Federal "Clean Water Act" and "Missouri Clean Water Law" Section 644 as amended). MSOPs are issued for a period of five (5) years unless otherwise specified for less.

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

PART I. FACILITY INFORMATION

Facility Type:	Industrial Stormwater >1 MGD
SIC Code(s):	4953
NAICS Code(s):	562212
Application Date:	07/01/2020
Modification Date:	01/01/2018
Expiration Date:	12/31/2020
Last Inspection:	04/24/2017, WPP CAV; 03/29/2016 WPP Inspection; 05/20/2020 WMP Inspection

FACILITY DESCRIPTION:
Active Municipal Solid Waste Landfill, etc.; SIC #4953; NAICS #562212. Facility has two non-discharging leachate basins. Leachate and sludge is hauled by tanker truck and is discharged to a permitted wastewater treatment facility. This facility does not require a certified wastewater operator per 10 CSR 20-9.030 as this facility is privately owned. Domestic wastewater is managed in a sub-surface system <3000 gallons/day.

In accordance with 40 CFR 122.21(f)(6), the Department evaluated other permits currently held by this facility. This facility has the following permits: Missouri Solid Waste Permit #116305; Part 70 Air Pollution Control Program permit #OP2014-022 (expired 01/05/2020), pending renewal project #AP201907011.

PERMITTED FEATURES TABLE:

OUTFALL	AVERAGE FLOW	DESIGN FLOW	TREATMENT LEVEL	EFFLUENT TYPE
#001	dependent on precipitation	2.11 MGD	BMPs, sedimentation	landfill stormwater
#002	dependent on precipitation	2.44 MGD	BMPs, sedimentation	landfill stormwater
#003	dependent on precipitation	1.4 MGD	BMPs	landfill stormwater

FACILITY PERFORMANCE HISTORY & COMMENTS:
The electronic discharge monitoring reports were reviewed for the last permit term. The data showed exceedances for oil and grease at outfall #001, aluminum at outfalls #001 and #002, and COD and TSS at all outfalls. In 2018, the permit was modified to bring it into line with current (at that time) landfill permitting practice. On March 30, 2017, The Missouri Department of Natural Resources issued a Notice of Violation to The Meridian Land Company, LLC for permit violations at the Eagle Ridge Landfill; specifically, exceedances of the permit limits for total suspended solids, total recoverable aluminum, and oil & grease. On April 24, 2017, Department representatives met with representatives of the facility to discuss the situation, and possible paths forward. During the meeting, it was agreed the facility would submit a Storm Water Action Plan (SWAP). On May 30, 2017, the Department received a

draft SWAP as part of the response. The Plan was approved June 29, 2017, and included a provision for submittal of a permit modification to reflect current landfill permitting practices.

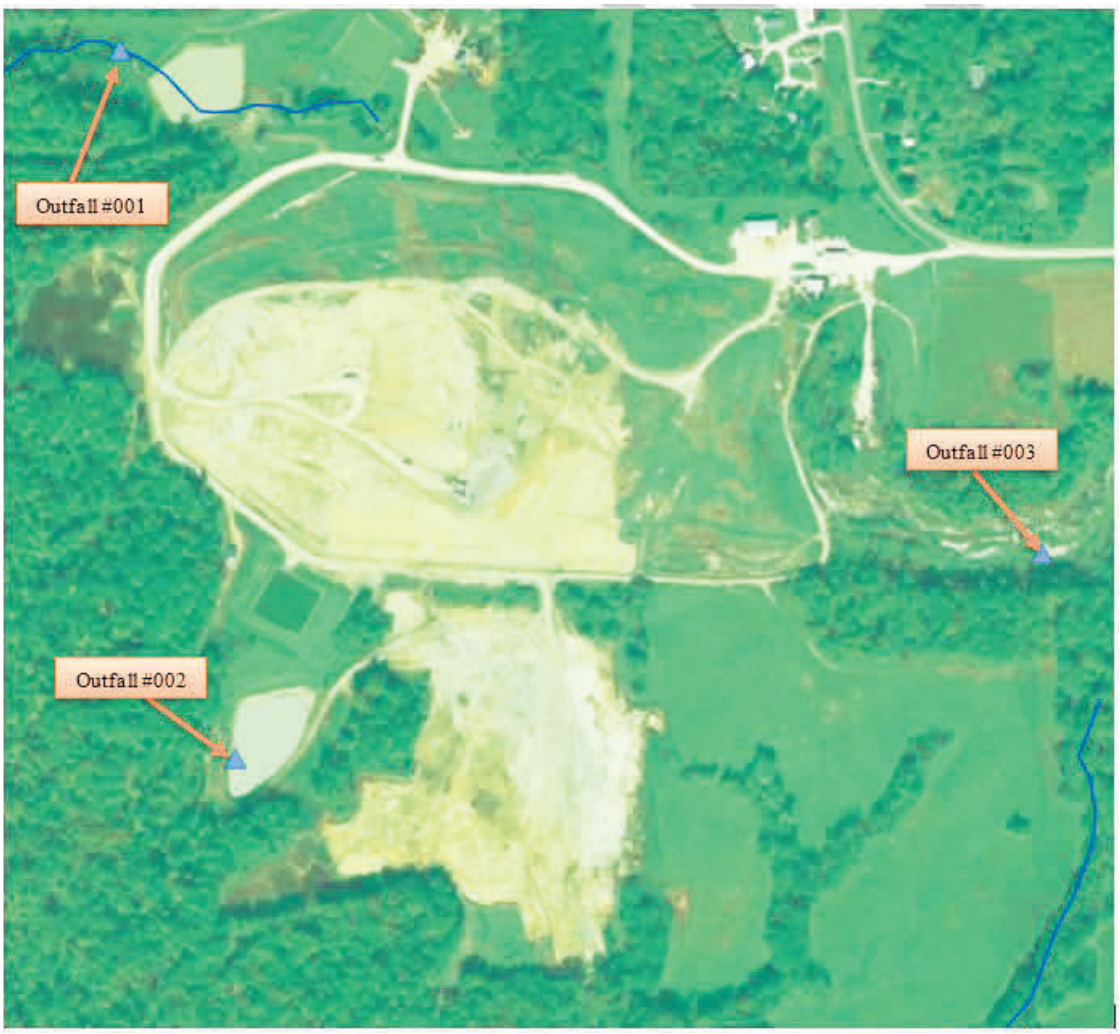
On August 14, 2017, the facility submitted the modification request as outlined in the SWAP. The request refers to the SWAP to outline improvements to be made to the stormwater infrastructure, stormwater sampling techniques, and improved maintenance of the BMPs at the site.

Since 2018, Eagle Ridge has performed numerous upgrades to BMPs at the site, including the installation of rock check dams, cleaning of the stormwater basins, and others. Review of the data indicates these upgrades improved effluent at the site a great deal; however, some levels of metals still need to be addressed through additional work on BMP measures. Most parameters have come into compliance following the addition of the new BMPs; however, aluminum continues to have elevated discharge data. This permit cycle adds a benchmark for aluminum, set at the 99th percentile of the best performing outfall at the site. This is a target goal for the facility to work iteratively to achieve at all outfalls.

The permit writer also reviewed the most recent Waste Management program inspection, done 05/20/2020. This inspection was one of a series of inspections which had unsatisfactory findings. These inspections noted loose trash and leachate outbreaks, which the site has not fully addressed at this time. The permit writer finds reasonable potential for violation of the general criteria found at 10 CSR 20-7.031(4) due to these findings. Several special conditions were added to this permit to address collection of trash (to prevent discharge of trash to the outfalls), the management and reporting of leachate outbreaks (to prevent contamination of stormwater by leachate at the site—which could also impact aluminum and TSS numbers), and the management of the no-discharge holding structures for leachate (to prevent overtopping and illegal discharges).

CONTINUING AUTHORITY:
The Missouri Secretary of State continuing authority charter number for this facility is FL001414996; this number was verified by the permit writer to be associated with the facility and precisely matches the continuing authority reported by the facility. The facility confirmed the correct continuing authority via email 09/18/2020.

FACILITY MAP:



PART II. RECEIVING WATERBODY INFORMATION

RECEIVING WATERBODY TABLE:

OUTFALL	WATERBODY NAME	CLASS	WBID	DESIGNATED USES	DISTANCE TO SEGMENT	12-DIGIT HUC
#001	100K Extent-Remaining Stream	C	3960	GEN, HHP, IRR, LWW, SCR, WBC-B, WWH (ALP)	0.0 mi	Peno Creek 07110007-0401
#002	Tributary to Gailey Branch	n/a	n/a	GEN	0.0 mi	
	100K Extent-Remaining Stream	C	3960	GEN, HHP, IRR, LWW, SCR, WBC-B, WWH (ALP)	0.26 mi	
#003	Tributary to Gailey Branch	n/a	n/a	GEN	0.0 mi	
	100K Extent-Remaining Stream	C	3960	GEN, HHP, IRR, LWW, SCR, WBC-B, WWH (ALP)	0.1 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: wetland. 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: 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.

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 = 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 currently does not have corresponding habitat use criteria for these defined uses): WSA = storm- and flood-water storage and attenuation; WHP = habitat for resident and migratory wildlife species; WRC = recreational, cultural, educational, scientific, and natural aesthetic values and uses; WHC = hydrologic cycle maintenance.
10 CSR 20-7.031(4): **GEN** = general criteria; acute toxicity criteria applicable to all waters even those lacking designated uses
n/a = not applicable

EXISTING WATER QUALITY:
The receiving waterbody has no relevant water quality data available. Downstream, a use attainment assessment done in July 2019 found Gailey Branch was impaired for the AQL use due to low dissolved oxygen (DO).

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

✓ Applicable; Gailey Branch is listed on the 2016 Missouri 303(d) list for DO. The source of the impairment is listed as "unknown".
- This facility is not considered a source of the above listed pollutant(s) or considered to contribute to the impairment.

TOTAL MAXIMUM DAILY LOAD (TMDL):
A TMDL is a calculation of the maximum amount of a given pollutant 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 may be developed. The TMDL shall include the WLA calculation. http://dnr.mo.gov/env/wpp/tmdl/

✓ Not applicable; this facility does not discharge to a waterbody/watershed with a TMDL.

UPSTREAM OR DOWNSTREAM IMPAIRMENTS:
The permit writer has reviewed upstream and downstream stream segments of this facility for impairments.
- ✓ This facility is located at the top of the watershed therefore no upstream is present at this location/outfalls.
- ✓ The permit writer has noted downstream of the facility the stream is on the 303(d) list for DO. The facility is not suspected to cause the impairment, therefore no additional actions are taken in this permit. The terms and conditions of this permit are expected to be protective of receiving streams' water quality.

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. Effluent limitations may not be applicable to certain waters of the state, facility type, or discharge type. In these cases, effluent limitations may be based on a best professional judgment evaluation. The best professional judgment evaluation will take site specific conditions into consideration; including facility type, the receiving water body classification, and type of discharge. Stormwater discharges and land application sites are not directly subject to limitations found in 10 CSR 20-7.015, but may be subject to limitations determined by the best professional judgment evaluation. Effluent limitation derivations are discussed in PART IV: EFFLUENTS LIMITS DETERMINATIONS.
- ✓ All other waters

LAKE NUMERIC NUTRIENT CRITERIA:
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/env/wpp/rules/documents/nutrient-implementation-plan-final-072618.pdf 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).
- ✓ Not applicable; this facility does not discharge in a lake watershed.

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

MIXING CONSIDERATIONS:
For all 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.

PART III. RATIONALE AND DERIVATION OF PERMIT CONDITIONS

ALTERNATIVE EVALUATIONS FOR NEW FACILITIES:
As per [10 CSR 20-7.015(4)(A)], discharges to losing streams shall be permitted only after other alternatives including land application, discharges to a gaining stream and connection to a regional wastewater treatment facility have been evaluated and determined to be unacceptable for environmental and/or economic reasons.
- ✓ Not applicable; the facility does not discharge to a losing stream as defined by [10 CSR 20-2.010(36)] & [10 CSR 20-7.031(1)(N)], and is an existing facility.

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 for the reissuance conform to the anti-backsliding provisions of Section 402(o) of the Clean Water Act, and 40 CFR Part 122.44.
  - ✓ Material and substantial alterations or additions to the permitted facility occurred after permit issuance justify the application of a less stringent effluent limitation.
    - The facility installed major BMP upgrades to the site. A modification was done in January 2018 to incorporate these changes; however, it was unclear at that time how the upgrades would affect the effluent data at the site. The permit writer is now able to consider the changes by utilizing the data when making decisions in this permit renewal. (see below)
  - ✓ 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.
    - DMR data were available to support converting some limitations to benchmarks. The limitations on BOD, COD, oil and grease, and settleable solids were converted to benchmarks. The data submitted by this facility showed no water quality concern either numeric or narrative for these pollutants, therefore a technology based benchmark is appropriate.

- Monitoring was removed for toluene and ethylbenzene. DMR data showed these pollutants to be well below the water quality standards. Additionally, monitoring for benzene is continued in this permit. Benzene is an appropriate indicator pollutant for other petroleum pollutants, and has the lowest water quality standard of the three, making it the most protective pollutant to use as an indicator.
- DMR data showed chloride + sulfate has no reasonable potential to exceed water quality standards, with all data being reported well under the water quality standards. The permit writer therefore removed limitations on this pollutant. Monitoring for this pollutant is continued, as chlorides are a pollutant of concern in landfill leachate.
- Monitoring for antimony, arsenic, beryllium, cadmium, lead, selenium, silver, and thallium was reduced to annual. Review of the data for these pollutants showed consistent low numbers and non-detects. Due to the consistency of the data, the permit writer uses best professional judgment to determine annual monitoring for these pollutants will sufficiently characterize the effluent. Any benchmarks for these parameters were also removed. Additionally, limitations were removed from silver and the requirement is now monitoring only. The data was consistently low, as previously discussed, and did not show reasonable potential to exceed in-stream water quality standards; therefore, monitoring only is appropriate for this pollutant.

✓ The Department determined technical mistakes or mistaken interpretations of law were made in issuing the permit under section 402(a)(1)(b).

- The previous permit had a 1,000 µg/L benchmark for iron, which was based on the chronic water quality criteria for iron found in 10 CSR 20-7.031 Table A1. The permit writer has changed this benchmark to 4,000 µg/L to be in line with other landfill permits. 4,000 µg/L is a reasonable, technologically feasible number to achieve in stormwater at landfill sites. Additionally, the permit writer has determined no reasonable potential for this facility to cause an exceedance of iron water quality standards in stream, as precipitation events are generally acute events and do not take place or cause discharge over enough days to endanger approaching the chronic standard for 4 days instream.
- Monitoring for hardness is removed from this permit. The Department will use ecoregion specific hardness to determine limitations for metals, if necessary. Monitoring of hardness at the facility outfalls is no longer necessary, therefore the requirement is removed. However, removal of monitoring in the permit does not preclude the facility from continued monitoring if the facility determines a site specific need for metals translator or would like to gather additional information about the effluent.
- The previous permit special conditions contained a specific set of prohibitions related to general criteria (GC) found in 10 CSR 20-7.031(4); however, there was no determination as to whether the discharges have reasonable potential to cause or contribute to excursion of those general water quality criteria in the previous permit. This permit assesses each general criteria as listed in the previous permit's special conditions. Federal regulations 40 CFR 122.44(d)(1)(iii) requires instances where reasonable potential (RP) to cause or contribute to an exceedance of a water quality standard exists, a numeric limitation must be included in the permit. Rather than conducting the appropriate RP determination, the previous permit simply placed the prohibitions in the permit. These conditions were removed from the permit. Appropriate reasonable potential determinations were conducted for each general criterion listed in 10 CSR 20-7.031(4)(A) through (I) and effluent limitations were placed in the permit for those general criteria where it was determined the discharge had reasonable potential to cause or contribute to excursions of the general criteria. Specific effluent limitations were not included for those general criteria where it was determined the discharges will not cause or contribute to excursions of general criteria. Removal of the prohibitions does not reduce the protections of the permit or allow for impairment of the receiving stream. The permit maintains sufficient effluent limitations, monitoring requirements and best management practices to protect water quality while maintaining permit conditions applicable to facility disclosures and in accordance with 10 CSR 20-7.031(4) where no water contaminant by itself or in combination with other substances shall prevent the water of the state from meeting the following conditions:
  (A) Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses.
    - For all outfalls, there is no RP for putrescent bottom deposits preventing full maintenance of beneficial uses because nothing disclosed by the facility indicates putrescent wastewater would be discharged from the facility.
    - For all outfalls, there is no RP for unsightly or harmful bottom deposits preventing full maintenance of beneficial uses because nothing disclosed by the facility indicates unsightly or harmful bottom deposits would be discharged from the facility.
  (B) Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses.
    - For all outfalls, there is no RP for oil in sufficient amounts to be unsightly preventing full maintenance of beneficial uses because nothing disclosed by the facility indicates oil will be present in sufficient amounts to impair beneficial uses.
    - For all outfalls, there is RP for scum and floating debris in sufficient amounts to be unsightly preventing full maintenance of beneficial uses because of an inspection done by the Waste Management Program indicating large amounts of free trash were found at the site. The permit writer included a condition in this permit requiring the clean-up and maintenance of the site to prevent contamination of stormwater with these substances. This condition authorizes zero trash to discharge from the site. (See special condition #4 for minimum BMPs.)

(C) Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses.
- For all outfalls, there is RP for unsightly color or turbidity in sufficient amounts preventing full maintenance of beneficial uses because DMR data provided by the site indicates occasional spikes of high levels of TSS in the effluent. Limitations are retained on TSS to protect this general criterion.
- For all outfalls, there is no RP for offensive odor in sufficient amounts preventing full maintenance of beneficial uses because nothing disclosed by the facility indicates offensive odor will be present in sufficient amounts to impair beneficial uses.

(D) Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life.
- The permit writer considered specific toxic pollutants when writing this permit. Numeric effluent limitations are included for those pollutants could be discharged in toxic amounts. These effluent limitations are protective of human health, animals, and aquatic life.

(E) Waters shall maintain a level of water quality at their confluences to downstream waters that provides for the attainment and maintenance of the water quality standards of those downstream waters, including waters of another state.
- This criteria was not assessed for antibacksliding as this is a new requirement, approved by the EPA on July 30, 2019.

(F) There shall be no significant human health hazard from incidental contact with the water.
- Much like the condition above, the permit writer considered specific toxic pollutants when writing this permit, including those pollutants could cause human health hazards. The discharge is limited by numeric effluent limitations for those conditions could result in human health hazards.

(G) There shall be no acute toxicity to livestock or wildlife watering.
- The permit writer considered specific toxic pollutants when writing this permit. Numeric effluent limitations are included for those pollutants could be discharged in toxic amounts. These effluent limitations are protective of livestock and wildlife watering.

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

(I) Waters shall be free from used tires, car bodies, appliances, demolition debris, used vehicles or equipment and solid waste as defined in Missouri's Solid Waste Law, section 260.200, RSMo, except as the use of such materials is specifically permitted pursuant to section 260.200-260.247.
- There is reasonable potential for the wastes listed above to be found in the receiving stream at the outfalls of this solid waste facility because of an inspection done by the Waste Management Program indicating large amounts of free trash were found at the site. The permit writer included a condition in this permit requiring the clean-up and maintenance of the site around the outfalls to prevent contamination of stormwater with these substances. This condition authorizes zero trash to discharge from the site (special condition #4).

- The previous permit had a special condition which indicated spills from hazardous waste substances must be reported to the department. However, this condition is covered under standard conditions therefore was removed from special conditions.
- The previous permit had a special condition requiring fueling facilities comply with applicable federal and state regulations concerning underground and aboveground storage, spill prevention, etc. The permit writer determined this special condition was outside the scope of NPDES permitting and removed this condition.

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 http://dnr.mo.gov/env/wpp/permits/antideg-implementation.htm

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

This permit requires the development and implementation of a Stormwater Pollution Prevention Plan (SWPPP) which must include an alternative analysis (AA) of the BMPs. The SWPPP must be developed, implemented, updated, and maintained at the facility. Failure to implement and maintain the chosen alternative, is a permit violation. The AA is a structured evaluation of BMPs to determine

which are reasonable and cost effective. Analysis should include practices designed to be 1) non-degrading, 2) less degrading, or 3) degrading water quality. The chosen BMP will be the most reasonable and cost effective while ensuring the highest statutory and regulatory requirements are achieved and the highest quality water attainable for the facility is discharged. The analysis must demonstrate why "no discharge" or "no exposure" are not feasible alternatives at the facility. Existing facilities with established SWPPPs and BMPs need not conduct an additional alternatives analysis unless new BMPs are established to address BMP failures or benchmark exceedances. This structured analysis of BMPs serves as the antidegradation review, fulfilling the requirements of 10 CSR 20-7.015(9)(A)5 and 7.031(3). For stormwater discharges with new, altered, or expanding discharges, the stormwater BMP chosen for the facility, through the AA performed by the facility, must be implemented and maintained at the facility. Failure to implement and maintain the chosen BMP alternative is a permit violation; see SWPPP.

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

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 RSMo 644.011 and 644.016 (17).

COST ANALYSIS FOR COMPLIANCE (CAFCOM):

Pursuant to Section 644.145, RSMo, when incorporating a new requirement for discharges from publicly owned facilities, or when enforcing provisions of this chapter or the Federal Water Pollution Control Act, 33 U.S.C. 1251 et seq., pertaining to any portion of a publicly owned facility, the Department of Natural Resources 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 Federal Water Pollution Control Act. This process is completed through a cost analysis for compliance. 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) and 122.42(a)(1). 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 found in 40 CFR 401.15. The facility should also consider any other toxic pollutant in the discharge as reportable under this condition.

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.

DOMESTIC WASTEWATER, SLUDGE, AND BIOSOLIDS:

Domestic wastewater is defined as wastewater (i.e., human sewage) originating primarily from the sanitary conveyances of bathrooms and kitchens. Domestic wastewater excludes stormwater, animal waste, process waste, and other similar waste.

✓ Not applicable; this facility discharges domestic wastewater subsurface with flows of 3,000 gallons per day or less as calculated in accordance with 19 CSR 20-3.060(1)(E) and tables 2A and 2B. The domestic wastewater system is jurisdiction of the Missouri Department of Health and Senior Services or Local Public Health Agency. This permit does not authorize any industrial wastewater for introduction into the sub-surface system.

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).

✓ Not applicable; domestic wastewater at this site falls under the jurisdiction of the Department of Health and Senior Services; see above.

EFFLUENT LIMITATIONS:
Effluent limitations derived and established for this permit are based on current operations of the facility and applied per 10 CSR 20-7.015(9)(A) as applicable. Any flow through the outfall is considered a discharge and must be sampled and reported as provided in the permit. Future permit action due to facility modification may contain new operating permit terms and conditions which supersede the terms and conditions, including effluent limitations, of this operating permit. Daily maximums and monthly averages are required per 40 CFR 122.45(d)(1) for continuous discharges (not from a POTW).

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

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

To assist the facility in entering data into the eDMR system, the permit describes limit sets in each table in Part A of the permit. The data entry personnel should use these identifiers to ensure data entry is being completed appropriately.
✓ The facility is currently using the eDMR data reporting system.

FEDERAL EFFLUENT LIMITATION GUIDELINE:
Effluent Limitation Guidelines, or ELGs, are found at 40 CFR 400-499. These are limitations established by the EPA based on the SIC code and the type of work a facility is conducting. Most ELGs are for process wastewater and some address stormwater. All are technology based limitations which must be met by the applicable facility at all times.
✓ The facility has an associated ELG (40 CFR 445) but does not discharge wastewater to waters of the state; uncontaminated stormwater discharges are not addressed by the ELG.

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 within the permit 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, RSMo 644.076.1, as well as Section D – Administrative Requirements of Standard Conditions Part I of 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 sections 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 RSMo 644.016(27), 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 to maintain a basin as no-discharge. Requirements for these types of operations are found in 10 CSR 20-6.015; authority to regulate these activities is from RSMo 644.026.
✓ Not applicable; this permit does not authorize operation of a surficial land application system to disperse wastewater or sludge.
✓ 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.

✓ Applicable; this permit provides coverage for land disturbance activities. The permittee is not required to procure a separate general permit (MO-RAxxx) for on-site land disturbance activities which discharge through outfalls authorized in this permit. Discharges must comply with the limits and conditions of this permit. If land disturbance activities discharge to any location other than through a permitted outfall, a separate MORA general permit may be required, or a modification of this operating permit.

MAJOR WATER USER:
Any surface or groundwater user with a water source and the equipment necessary to withdraw or divert 100,000 gallons (or 70 gallons per minute) or more per day combined from all sources from any stream, river, lake, well, spring, or other water source is considered a major water user in Missouri. All major water users are required by law to register water use annually (Missouri Revised Statues Chapter 256.400 Geology, Water Resources and Geodetic Survey Section). https://dnr.mo.gov/pubs/pub2236.htm

✓ Not applicable; this facility cannot withdraw water from the state in excess of 70 gpm/0.1 MGD.

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 is a stormwater only 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 to manufacturer's specifications and authorized in NPDES permits per 10 CSR 26-2.010(2) or may be regulated as a petroleum tank.

✓ 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 and therefore oil water separator tanks are not authorized by this permit.

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 required to have a certified operator. This permit does not cover domestic wastewater or the domestic wastewater population equivalent (PE) is less than two hundred (200). Additionally, 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.

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 RSMo 644.016 are limitations on the introduction of pollutants or water contaminants into publicly owned treatment works or facilities.

✓ Applicable; this entity reported wastewater is discharged to a POTW and falls under a category requiring pretreatment requirements.

REASONABLE POTENTIAL (RP):
Federal regulation [40 CFR Part 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 in zones of initial dilution, and chronic toxicity criteria may be exceeded by permit 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 may use mathematical reasonable potential analysis (RPA) using the Technical Support Document for Water Quality Based Toxics Control (TSD) methods (EPA/505/2-90-001) as found in Section 3.3.2, or may also use reasonable potential determinations (RPD) as provided in Sections 3.1.2, 3.1.3, and 3.2 of the TSD.

✓ Not applicable; a mathematical RPA was not conducted for this facility. This permit establishes permit limits and benchmarks for stormwater. The Department has determined stormwater is not a continuous discharge and is therefore not necessarily dependent on mathematical RPAs. However, the permit writer completed an RPD, a reasonable potential determination, using best

professional judgment for all of the appropriate parameters in this permit. An RPD consists of reviewing application data and/or discharge monitoring data for the last five years and comparing those data to narrative or numeric water quality criteria.

- ✓ Permit writers use the Department's permit writer's manual (http://dnr.mo.gov/env/wpp/permits/manual/permit-manual.htm), the EPA's permit writer's manual (https://www.epa.gov/npdes/npdes-permit-writers-manual), program policies, and best professional judgment. For each parameter in each permit, the permit writer carefully considers all applicable information regarding: technology based effluent limitations, effluent limitation guidelines, water quality standards, stream flows and uses, and all applicable site specific information and data gathered by the 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.

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 RSMo 644.051.13(5) 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 disclosure 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 RSMo 644.051.16.

SAMPLING FREQUENCY JUSTIFICATION:
Sampling and reporting frequency was generally retained from previous permit. Some parameters were reduced to annual monitoring due to low variability in effluent quality.

Sampling frequency for stormwater-only outfalls is typically quarterly even though BMP inspection occurs monthly. The facility may sample more frequently if additional data is required to determine if best management operations and technology are performing as expected.

SAMPLING TYPE JUSTIFICATION:
Sampling type was continued from the previous permit. The sampling types are representative of the discharges, and are protective of water quality. Discharges with altering effluent should have composite sampling; discharges with uniform effluent can have grab samples. Grab samples are usually appropriate for stormwater. Parameters which must have grab sampling are: pH, ammonia, *E. coli*, total residual chlorine, free available chlorine, hexavalent chromium, dissolved oxygen, total phosphorus, volatile organic compounds, and others. For further information on sampling and testing methods see 10 CSR 20-7.015(9)(D)2.

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

- ✓ Not applicable; this permit does not contain a SOC. Limits have not become more restrictive.

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 practicable moment after discovery. The Department may require the submittal of a written report detailing measures taken to clean up a spill. These reporting requirements apply whether or not the spill results in chemicals or materials leaving the permitted property or reaching waters of the state. This requirement is in addition to the noncompliance reporting requirement found in Standard Conditions Part I. http://dnr.mo.gov/env/esp/spillbill.htm

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.

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.

- ✓ Applicable; sludge is removed by contract hauler and taken to a permitted wastewater treatment facility.

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 statues, 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) Section 3.1 indicates most procedures within the document apply only to water quality based approaches, not end-of-pipe technology-based controls. Hence, stormwater-only outfalls will generally only contain a maximum daily limit (MDL), 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):
In accordance with 40 CFR 122.44(k), Best Management Practices (BMPs) must be used to control or abate the discharge of pollutants when: 1) Authorized under section 304(e) of the Clean Water Act (CWA) for the control of toxic pollutants and hazardous substances from ancillary industrial activities; 2) Authorized under section 402(p) of the CWA for the control of stormwater discharges; 3) Numeric effluent limitations are infeasible; or 4) the practices are reasonably necessary to achieve effluent limitations and standards or to carry out the purposes and intent of the CWA. In accordance with the EPA's *Developing Your Stormwater Pollution Prevention Plan, A Guide for Industrial Operators*, (EPA 833-B-09-002) published by the EPA in 2015 https://www.epa.gov/sites/production/files/2015-11/documents/swppp_guide_industrial_2015.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).

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. 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.

Areas which should be included in the SWPPP are identified in 40 CFR 122.26(b)(14). Once the potential sources of stormwater pollution have been identified, a plan should be formulated to best control the amount of pollutant being released and discharged by each activity or source. This should include, but is not limited to, minimizing exposure to stormwater, good housekeeping measures, proper facility and equipment maintenance, spill prevention and response, vehicle traffic control, and proper materials handling. Once a plan has been developed the facility will employ the control measures determined to be adequate to achieve the benchmark values discussed above. The facility will conduct monitoring and inspections of the BMPs to ensure they are working properly and re-evaluate any BMP not achieving compliance with permitting requirements. For example, if sample results from an outfall show values of TSS above the benchmark value, the BMP being employed is deficient in controlling stormwater pollution. Corrective action should be taken to repair, improve, or replace the failing BMP. This internal evaluation is required at least once per month but should be continued more frequently if BMPs continue to fail. If failures do occur, continue this trial and error process until appropriate BMPs have been established.

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

Alternative Analysis (AA) evaluation of the BMPs is a structured evaluation of BMPs 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), Section 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/forms/#WaterPollution

- ✓ 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, section A, number 4. The analytical and sampling methods used shall conform to the reference methods listed in 10 CSR 20-7.015 and/or 40 CFR 136 unless alternates are approved by the Department 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 a 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. 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 section 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 RSMo 577.155; 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 RSMo 577.155; 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 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: http://dnr.mo.gov/forms/780-1774-f.pdf 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)).
✓ 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.
✓ 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 amount of pollutant each discharger is allowed to discharge into the receiving stream without endangering water quality. Two general types of effluent limitations, technology-based effluent limits (TBELs) and water quality based effluent limits (WQBELs) are reviewed. If one limit does not provide adequate protection for the receiving water, then the other must be used per 10 CSR 20-7.015(9)(A). Total Maximum Daily Loads, if required for this facility, were also reviewed.
✓ Not applicable; wasteload allocations were either not calculated or were not based on standard TSD methods.

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 section 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 LIMITS DETERMINATIONS

OUTFALL #001, #002, AND #003 – STORMWATER OUTFALLS

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	ONCE/QUARTER	24 HR. ESTIMATE
PRECIPITATION	inches	*	-	SAME	ONCE/QUARTER	ONCE/QUARTER	24 HR. TOT
CONVENTIONAL							
BOD_5	mg/L	**	45	45 LIMIT	ONCE/QUARTER	ONCE/QUARTER	GRAB
COD	mg/L	**	90	90 LIMIT	ONCE/QUARTER	ONCE/QUARTER	GRAB
OIL & GREASE	mg/L	**	10	15 LIMIT	ONCE/QUARTER	ONCE/QUARTER	GRAB
pH †	SU	6.5-9.0	-	SAME	ONCE/QUARTER	ONCE/QUARTER	GRAB
SETTLEABLE SOLIDS	mL/L/hr	**	1.5	1.5 LIMIT	ONCE/QUARTER	ONCE/QUARTER	GRAB
TSS	mg/L	80	-	SAME	ONCE/QUARTER	ONCE/QUARTER	GRAB
METALS							
HARDNESS	REMOVED FROM MONITORING						
ALUMINUM, TR	µg/L	**	1,650	*	ONCE/QUARTER	ONCE/QUARTER	GRAB
ANTIMONY, TR	µg/L	*	-	**4.3	ONCE/YEAR	ONCE/YEAR	GRAB
ARSENIC, TR	µg/L	*	-	**20	ONCE/YEAR	ONCE/YEAR	GRAB
BERYLLIUM, TR	µg/L	*	-	**5	ONCE/YEAR	ONCE/YEAR	GRAB
CADMIUM, TR	µg/L	*	-	**5.4	ONCE/YEAR	ONCE/YEAR	GRAB
CHROMIUM (III), TR	µg/L	*	-	SAME	ONCE/YEAR	ONCE/YEAR	GRAB
CHROMIUM (VI), DISS	µg/L	*	-	SAME	ONCE/YEAR	ONCE/YEAR	GRAB
COPPER, TR	µg/L	*	-	SAME	ONCE/YEAR	ONCE/YEAR	GRAB
IRON, TR	µg/L	**	4,000	**1,000	ONCE/QUARTER	ONCE/QUARTER	GRAB
LEAD, TR	µg/L	*	-	**89.9	ONCE/YEAR	ONCE/YEAR	GRAB
MERCURY, TR	µg/L	*	-	SAME	ONCE/YEAR	ONCE/YEAR	GRAB
NICKEL, TR	µg/L	*	-	SAME	ONCE/YEAR	ONCE/YEAR	GRAB
SELENIUM, TR	µg/L	*	-	**5	ONCE/YEAR	ONCE/YEAR	GRAB
SILVER, TR	µg/L	*	-	4.4 LIMIT	ONCE/YEAR	ONCE/YEAR	GRAB
THALLIUM, TR	µg/L	*	-	**6.3	ONCE/YEAR	ONCE/YEAR	GRAB
ZINC, TR	µg/L	**	162	*	ONCE/QUARTER	ONCE/QUARTER	GRAB
NUTRIENTS							
AMMONIA AS N	mg/L	*	-	SAME	ONCE/QUARTER	ONCE/QUARTER	GRAB
OTHER							
BENZENE	µg/L	*	-	**71	ONCE/QUARTER	ONCE/QUARTER	GRAB
CHLORIDE	mg/L	*	-	SAME	ONCE/QUARTER	ONCE/QUARTER	GRAB
CHLORIDE + SULFATE	mg/L	*	-	1000 LIMIT	ONCE/QUARTER	ONCE/QUARTER	GRAB
ETHYLBENZENE	REMOVED FROM MONITORING						
SULFATE	mg/L	*	-	NEW	ONCE/QUARTER	ONCE/QUARTER	GRAB
TOLUENE	REMOVED FROM MONITORING						

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

DERIVATION AND DISCUSSION OF LIMITS:

PHYSICAL:

Flow
In accordance with [40 CFR Part 122.44(i)(1)(ii)] the volume of effluent discharged from each outfall is needed to ensure compliance with permitted effluent limitations. If the facility is unable to obtain estimated effluent flow, then it is the responsibility of the facility to inform the Department. The facility will report the estimated total flow in millions of gallons per day (MGD), quarterly monitoring continued from previous permit.

Precipitation
Monitoring only requirement; measuring the amount of precipitation [(10 CSR 20-6.200(2)(C)1.E(VI)] during an event is necessary to ensure adequate stormwater management exists at the site. Knowing the amount of potential stormwater runoff can provide the facility a better understanding of any specific control measures be employed to ensure protection of water quality. The facility will provide the 24 hour accumulation value of precipitation from the day of sampling the other parameters.

CONVENTIONAL:

Biochemical Oxygen Demand - 5 Day (BOD_5)
Quarterly monitoring, with a benchmark of 45 mg/L. The previous permit had a daily maximum limit of 45 mg/L. The permit wrier reviewed DMR data for the site and determined no reasonable potential for exceeding narrative water quality standards due to this pollutant, therefore the limitation was replaced with a technology based benchmark. The benchmark is believed to be achievable by landfill sites operating typical BMPs. This site had data below this benchmark in the previous permit cycle. BOD is a known pollutant of concern at landfills. It is found in the ELG at 40 CFR part 445.

Chemical Oxygen Demand (COD)
Quarterly monitoring with 90 mg/L daily maximum benchmark. The previous permit required a daily maximum limit of 90 mg/L. The permit wrier reviewed DMR data for the site and determined no reasonable potential for exceeding narrative water quality standards due to this pollutant, therefore the limitation was replaced with a technology based benchmark. The benchmark is believed to be achievable by landfill sites operating typical BMPs. This site had data below 45 mg/L in the previous permit cycle. COD is a pollutant of concern at landfills and in stormwater in general. There is no numeric water quality standard for COD; however, increased oxygen demand may impact instream water quality. COD is also used as an indicator parameter. Monitoring allows the facility to identify increases in COD that may indicate materials 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 benchmark value falls within the range of values implemented in other landfill permits and is achievable through proper BMP controls.

Oil & Grease
Quarterly monitoring with a daily maximum benchmark of 10 mg/L. The previous permit had a daily maximum limit of 15 mg/L. The permit writer reviewed available DMR data for the site and determined no reasonable potential to exceed water quality standards, either numeric or narrative, therefore limitations were removed and replaced with a technology based benchmark. There was once exceedance of the water quality standard before upgrades were made to the site; however, since the upgrades, the site has experienced no further exceedances. Oil and grease is considered a conventional pollutant, and is a known pollutant of concern at landfills (especially those with heavy truck and machinery traffic), and in industrial stormwater in general. Oil and grease is a comprehensive test which measures for gasoline, diesel, crude oil, creosote, kerosene, heating oils, heavy fuel oils, lubricating oils, waxes, and some asphalt and pitch. The test can also detect some volatile organics such as benzene, toluene, ethylbenzene, or toluene, but these constituents are often lost during testing due to their boiling points. It is recommended to perform separate testing for these constituents if they are a known pollutant of concern at the site, i.e. aquatic life toxicity or human health is a concern. Results do not allow for separation of specific pollutants within the test, they are reported, totaled, as "oil and grease". Per 10 CSR 20-7.031 Table A1: *Criteria for Designated Uses*; 10 mg/L is the standard for protection of aquatic life. This standard will also be used to protect the general criteria found at 10 CSR 20-7.031(4). Ten mg/L is the level at which sheen is expected to form on receiving waters. Oils and greases of different densities will possibly form sheen or unsightly bottom deposits at levels which vary from 10 mg/L. To protect the general criteria, it is the responsibility of the facility to visually observe the discharge and receiving waters for sheen or bottom deposits. The benchmark is achievable through proper operational and maintenance of BMPs and falls within the range of values implemented in other permits having similar industrial activities.

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. The stormwater at the site is variable in pH, limitations are appropriate as the stormwater has the potential to violate water quality. pH is a typical water quality indicator and maintenance of pH in the limited range will maintain the use designations of the receiving streams. The limit is achievable through operation of standard BMPs and prevention of contamination of stormwater by leachate.

Settleable Solids (SS)
Quarterly monitoring with a daily maximum benchmark of 1.5 mL/L/hour. The previous permit required a daily maximum limit of 1.5 mL/L/hr. The permit writer reviewed the data submitted by the site and determined no reasonable potential for this parameter to exceed narrative water quality standards; therefore, limitations were removed and replaced with a technology based benchmark. Solids are one of the primary pollutants of concern at landfills due to the industrial activities taking place, including maintaining the active face, maintaining daily and other cover, and other land disturbance based activities. There is no numeric water quality standard for SS; however, sediment discharges can negatively impact aquatic life habitat. Settleable solids are also a valuable indicator parameter. Solids monitoring allows the facility to identify increases in sediment and solids may indicate uncontrolled materials leaving the site. The benchmark value falls within the range of values implemented in other permits having similar industrial activities.

Total Suspended Solids (TSS)
Quarterly monitoring with a daily maximum limit of 80 mg/L, continued from the previous permit. The permit writer reviewed available DMR data for the site and determined reasonable potential to impact narrative water quality standards due to the exceedances of the permit limit in the previous permit cycle. The permit writer notes the data has improved since the installation of the new BMP measures; however, exceedances of the permitted limit still occurred. 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 benchmark 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:

Hardness as $CaCO_3$
Monitoring for this parameter is removed. The Department now uses an ecoregion hardness to determine water quality standards for metals or other pollutants if necessary.

Aluminum, Total Recoverable
Quarterly monitoring with a benchmark of 1,650 µg/L. The previous permit required monitoring only. DMR data showed the site has highly variable aluminum numbers, ranging from 90 µg/L up to 5,100 µg/L since the addition of the new BMP measures. Prior to the addition of the BMP measures, the site had data ranging up to 8,900 µg/L. The data improved on average by over 1,500 µg/L at outfall #001, 1,900 µg/L at outfall #002, and 1,400 µg/L at outfall #003. While this shows substantial improvement, the site should still be considering methods to improve the discharge data. The benchmark applied to the outfalls was set at the 99^{th} percentile of the data for outfall #003. Outfall #003 was the best performing outfall at the site since the addition of the upgraded BMPs. The site should consider sources of aluminum in the discharge and consider BMP methods to remove it. Aluminum is found in a wide variety of consumer products and as an alloy in many metals. It is also naturally occurring in soils, and can be found adsorbed to solids. For the previous modification, the facility supplied data indicating a large proportion of the aluminum is found in the total recoverable fraction, with much less in the more bioavailable dissolved fraction. For this reason, the permit writer does not believe limitations are necessary at this time to protect aquatic life in the receiving stream; however, measures should be taken to reduce aluminum in the discharge and allow for incremental improvements in aluminum discharges at the site.

Iron, Total Recoverable
Quarterly monitoring with a benchmark of 4,000 µg/L. The previous permit required a benchmark of 1,000 µg/L. The permit writer used best professional judgment to increase the benchmark on this parameter to be in line with other landfill permits. 4,000 µg/L is considered to be typical and achievable at landfill sites. Iron is a component of leachate and is also naturally occurring in soils and thus may be a component of total suspended solids.

Zinc, Total Recoverable
Quarterly monitoring with a benchmark of 162 µg/L. The previous permit required annual monitoring only. The permit writer used best professional judgment to increase monitoring to quarterly due to variability in the data. Quarterly monitoring will more accurately capture variations in discharges at the site. Zinc is a known pollutant of concern at landfills and is found as a component of leachate, as well as a naturally occurring component of soils. As it is found in soil, it may be adsorbed to suspended solids and transported to the outfall in this manner. The benchmark is set to the 99^{th} percentile of available DMR data, meaning it is achievable at the site 99% of the time.

Antimony, Total Recoverable; Arsenic, Total Recoverable; Beryllium, Total Recoverable; Cadmium, Total Recoverable; Lead Total Recoverable; Selenium, Total Recoverable; Thallium, Total Recoverable
Annual monitoring. The previous permit required quarterly monitoring with benchmarks for these pollutants; however, the permit writer assessed the individual data and did not determine reasonable potential to exceed water quality standards for any of these parameters. The data consistently showed low values compared to the relevant water quality standards found in 10 CSR 20-7.031. Due to the consistency of the data and the lack of reasonable potential, the permit writer determined annual monitoring to be sufficient for this parameter. These are known pollutants of concern at landfills and are found in a variety of consumer products which may be discarded, additionally they are a known component of leachate; therefore, monitoring is continued.

Chromium (III), Total Recoverable; Chromium (VI) Dissolved; Copper, Total Recoverable; Mercury Total Recoverable; Nickel, Total Recoverable
Annual Monitoring, continued from the previous permit. DMR data continues to indicate no reasonable potential for these pollutants. Monitoring is continued as these are known pollutants of concern at landfills and are found in a variety of consumer products which may be discarded, additionally they are a known component of landfill leachate at many sites.

NUTRIENTS:

Ammonia, Total as Nitrogen
Quarterly monitoring, continued from the previous permit. There were no values that indicated reasonable potential to exceed acute water quality standards in stream reported in the previous permit cycle. Ammonia is a pollutant of concern in landfill leachate. Its toxicity is dependent on temperature, therefore quarterly monitoring is required to get the full range of seasonal changes for the parameter.

OTHER:

Benzene
Quarterly monitoring, continued from the previous permit. Benzene is a pollutant of concern at sites with heavy construction and truck traffic. It is also a component of leachate, and can be found in nearly all petroleum based products. It is considered a good indicator of petroleum discharges at a site, therefore monitoring is continued. The previous permit required a benchmark; however, no values reported by the facility approached the benchmark value, so it is superfluous and therefore removed.

Ethylbenzene, Toluene
Monitoring for these pollutants is removed for these pollutants as they show no reasonable potential to exceed water quality standards. Data indicates they are not pollutants of concern at this site. Monitoring for benzene is continued as an indicator for petroleum discharges, therefore monitoring for these pollutants is not necessary at this time. Should petroleum discharges from the site be verified in future permit cycles, these pollutants may require monitoring to ensure protection of the water quality standards.

Chloride
Quarterly monitoring only, continued from the previous permit. Chloride is a pollutant of concern in landfill leachate. Additionally, monitoring for chloride is required to comply with the chloride + sulfate parameter below.

Sulfate
Quarterly monitoring required to determine chloride + sulfate below. The facility shall sample and independently report the analytical value of sulfate. Reporting this parameter is new to this permit; however, monitoring was already required to comply with chloride + sulfate.

Chloride + Sulfate
Quarterly monitoring. The previous permit had a limit of 1,000 mg/L for this parameter; however, all data at this site does not indicate reasonable potential to exceed water quality standards, and a technology limit is infeasible as there is no readily available treatment for chloride and sulfate in stormwater. Monitoring is continued as this is a known pollutant of concern at landfill sites.

PART V. ADMINISTRATIVE REQUIREMENTS

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

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

- ✓ This permit will maintain synchronization by expiring the end of the 4th quarter, 2025.

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 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 facility must be notified of the denial in writing. http://dnr.mo.gov/env/wpp/permits/pn/index.html

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 started on October 23, 2020 and ended on November 23, 2020. No comments were received.

DATE OF FACT SHEET: 09/03/2020
COMPLETED BY:
AMBERLY SCHULZ, ENVIRONMENTAL ANALYST
MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM
OPERATING PERMITS SECTION – STORMWATER AND CERTIFICATION UNIT
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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.

AP 44330

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

FOR AGENCY USE ONLY	
CHECK NUMBER	
DATE RECEIVED	FEE SUBMITTED
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 – 0111996 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	
Eagle Ridge Landfill		(573) 324-5610	
ADDRESS (PHYSICAL)	CITY	STATE	ZIP CODE
13100 Highway VV	Bowling Green	MO	63334

3. OWNER

NAME		TELEPHONE NUMBER WITH AREA CODE	
Meridian Land Company, LLC		(314) 291-3131	
EMAIL ADDRESS			
GAsciutto@meridianwaste.com			
ADDRESS (MAILING)	CITY	STATE	ZIP CODE
17900 Veterans Memorial Pkwy	Foristell	MO	63348

4. CONTINUING AUTHORITY

NAME		TELEPHONE NUMBER WITH AREA CODE	
Same as Owner			
EMAIL ADDRESS			
ADDRESS (MAILING)	CITY	STATE	ZIP CODE

5. OPERATOR CERTIFICATION

NAME	CERTIFICATE NUMBER	TELEPHONE NUMBER WITH AREA CODE	
ADDRESS (MAILING)	CITY	STATE	ZIP CODE

6. FACILITY CONTACT

NAME	TITLE	TELEPHONE NUMBER WITH AREA CODE
Roger Brown	General Manager	(314) 799-7889
E-MAIL ADDRESS		
rbrown@meridianwaste.com		

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

NAME			
See Location Map Attached			
ADDRESS	CITY	STATE	ZIP CODE

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 _____ T _____ R _____ _____ County
UTM Coordinates Easting (X): _____ Northing (Y): _____

002 NE ¼ SW ¼ Sec 2 T 53N R 3W Pike County
UTM Coordinates Easting (X): 653891 Northing (Y): 4361910

003 NE ¼ SE ¼ Sec 2 T 53N R 3W Pike County
UTM Coordinates Easting (X): 654664 Northing (Y): 4362122

004 _____¼ _____¼ Sec _____ T _____ R _____ _____ County
UTM Coordinates Easting (X): _____ Northing (Y): _____

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 4953 and NAICS _____ 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: See Attached Permit List

F. Do you use cooling water in your operations at this facility? YES ☐ NO ☑
If yes, please indicate the source of the water: _____

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
Gregg Asciutto, Area President	(314) 291-3131
SIGNATURE	DATE SIGNED
	3/28/24

8.1 – Legal Description of Outfalls

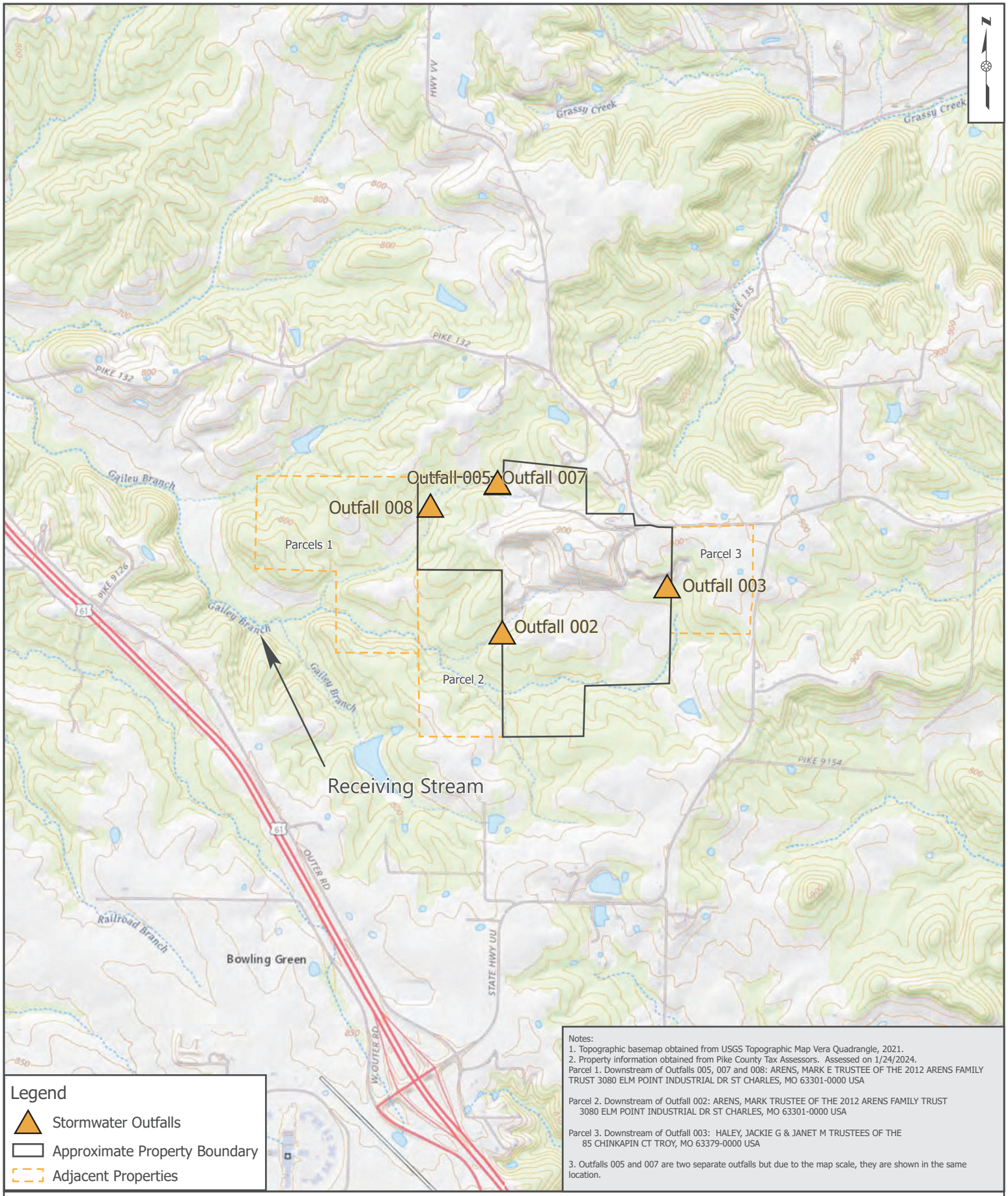
1. Outfall 005:
   SW¼, NW¼, Section 2, T53N, R3W, Pike County
   UTM Coordinates: Easting (X): 653823, Northing (Y): 4362601

2. Outfall 007
   SW¼, NW¼, Section 2, T53N, R3W, Pike County
   UTM Coordinates: Easting (X): 653823, Northing (Y): 4362601

3. Outfall 008
   SW¼, NW¼, Section 2, T53N, R3W, Pike County
   UTM Coordinates: Easting (X): 653499, Northing (Y): 4362482

9.E – List of all Permits/Approvals for this Facility

1. Missouri State Operating Permit No. MO-0111996
2. Solid Waste Permit to Operate No. 0116305
3. Air Construction Permit No. 112019-002
4. Title V Permit No. OP2014-022
5. Air Construction Permit No. 042023-006
6. New Source Review Temporary Permit No. 072023-007



Notes:
1. Topographic basemap obtained from USGS Topographic Map Vera Quadrangle, 2021.
2. Property information obtained from Pike County Tax Assessors. Assessed on 1/24/2024.
Parcel 1. Downstream of Outfalls 005, 007 and 008: ARENS, MARK E TRUSTEE OF THE 2012 ARENS FAMILY TRUST 3080 ELM POINT INDUSTRIAL DR ST CHARLES, MO 63301-0000 USA

Parcel 2. Downstream of Outfall 002: ARENS, MARK TRUSTEE OF THE 2012 ARENS FAMILY TRUST 3080 ELM POINT INDUSTRIAL DR ST CHARLES, MO 63301-0000 USA

Parcel 3. Downstream of Outfall 003: HALEY, JACKIE G & JANET M TRUSTEES OF THE 85 CHINKAPIN CT TROY, MO 63379-0000 USA

3. Outfalls 005 and 007 are two separate outfalls but due to the map scale, they are shown in the same location.

Legend
- Stormwater Outfalls
- Approximate Property Boundary
- Adjacent Properties

Location Map

Eagle Ridge - MSOP Modification
Meridian Land Company, LLC
Pike County, Missouri
3/11/2024

0 1,000 2,000 Feet
1 inch equals 2,000 Feet

DISCLAIMER:
This drawing and the information contained herein is for general presentation purposes only and is a compilation of shapefile(s) provided by various source(s). The source and accuracy of the file(s) has not been verified by HHNT and therefore the drawing is not intended for use as a engineering drawing or for design purposes.

HHNT
HODGES, HARBIN, NEWBERRY & TRIBBLE, INC.
Consulting Engineers

Path: I:\Meridian Waste - Eagle Ridge\Maps\Stormwater Permit Mod\Stormwater Permit Mod 2.aprx User: tshrader

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

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

GENERAL INFORMATION (PLEASE SEE INSTRUCTIONS)

1.0 NAME OF FACILITY

Eagle Ridge Landfill

1.1 THIS FACILITY IS OPERATING UNDER MISSOURI STATE OPERATING PERMIT (MSOP) NUMBER:

MO-0111996

1.2 IS THIS A NEW FACILITY? PROVIDE CONSTRUCTION PERMIT (CP) NUMBER IF APPLICABLE.

1.3 Describe the nature of the business, in detail. Identify the goods and services provided by the business. Include descriptions of all raw, intermediate, final products, byproducts, or waste products used in the production or manufacturing process, stored outdoors, loaded or transferred and any other pertinent information for potential sources of wastewater or stormwater discharges.

Permitted municipal solid waste landfill that accepts non-hazardous solid waste for disposal. The facility is covered Missouri State Operating Permit No. MO-0111996 for stormwater dischargers. There are five discharge points, shown in the Location Map as part of this permit modification. No changes are being proposed for Outfalls 002 and 003.

FLOWS, TYPE, AND FREQUENCY

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

2.1 For each outfall (1) below, provide: (2) a description of all operations contributing wastewater to the effluent, including process wastewater, sanitary wastewater, cooling water, stormwater runoff, and any other process or non-process wastewater, (3) the average flow and maximum flow (put max in parentheses) contributed by each operation and the sum of those operations, (4) the treatment received by the wastewater, and (5) the treatment type code. Continue on additional sheets if necessary.

1. OUTFALL NO.	2. OPERATION(S) CONTRIBUTING FLOW; INCLUDE ALL PROCESSES AND SUB PROCESSES AT EACH OUTFALL	3. AVERAGE FLOW AND (MAXIMUM FLOW), INCLUDE UNITS.	4. TREATMENT DESCRIPTION	5. TREATMENT CODES FROM TABLE A
002	Stormwater run-off through sediment pond	4.7cfs	Sedimentation	1U
003	Stormwater run-off	4 cfs	Discharge to Surface Water	4A
005	Stormwater run-off through sediment pond	2.27 cfs	Sedimentation	1U
007	Stormwater run-off through sediment pond	0.601 cfs	Sedimentation	1U
008	Stormwater run-off through sediment pond	0.602 cfs	Sedimentation	1U

Attach additional pages if necessary.

2.2 INTERMITTENT DISCHARGES

Except for stormwater runoff, leaks, or spills, are any of the discharges described in items 2.0 or 2.1 intermittent or seasonal?

☐ Yes *(complete the following table)* ☑ No *(go to section 2.3)*

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

2.3 PRODUCTION

A. Does an effluent limitation guideline (ELG) promulgated by EPA under section 304 of the Clean Water Act apply to your facility? Indicate the part and subparts applicable.

☐ Yes 40 CFR_____ Subpart(s) _____ ☑ No *(go to section 2.5)*

B. Are the limitations in the effluent guideline(s) expressed in terms of production (or other measure of operation)? Describe in C below.

☐ Yes *(complete C.)* ☐ No *(go to section 2.5)*

C. If you answered "yes" to B, list the quantity representing an actual measurement of your maximum level of production, expressed in the terms and units used in the applicable effluent guideline and indicate the affected outfalls.

A. OUTFALL(S)	B. QUANTITY PER DAY	C. UNITS OF MEASURE	D. OPERATION, PRODUCT, MATERIAL, ETC. *(specify)*

2.4 IMPROVEMENTS

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

☐ Yes *(complete the following table)* ☐ No *(go to 2.6)*

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

B. Optional: provide below or attach additional sheets describing water pollution control programs or other environmental projects which may affect discharges. Indicate whether each program is underway or planned, and indicate actual or planned schedules for construction. This may include proposed bmp projects for stormwater.

2.5 SLUDGE MANAGEMENT

Describe the removal of any industrial or domestic biosolids or sludges generated at your facility. Include names and contact information for any haulers used. Note the frequency, volume, and methods (incineration, landfilling, composting, etc) used. See Form A for additional forms which may need to be completed.

N/A

DATA COLLECTION AND REPORTING REQUIREMENTS FOR APPLICANTS

3.0 EFFLUENT (AND INTAKE) CHARACTERISTICS (SEE INSTRUCTIONS)

A. & B. See instructions before continuing – complete one Table 1 for **each outfall** (and intake) – annotate the outfall (intake) number or designation in the space provided. The facility is not required to complete intake data unless required by the department or rule.

C. Use the space below to list any pollutants listed in the instructions section 3.0 C. Table B which you know or have reason to believe is discharged or may be discharged from any outfall not listed in parts 3.0 A or B on Table 1. For every pollutant listed, briefly describe the reasons you believe it to be present and report any analytical data in your possession.

1. POLLUTANT	2. SOURCE	3. OUTFALL(S)	4. ANALYTICAL RESULTS (INCLUDE UNITS)

3.1 Whole Effluent Toxicity Testing

A. To your knowledge, have any Whole Effluent Toxicity (WET) tests been performed on the facility discharges (or on receiving waters in relation to your discharge) within the last three years?

☐ Yes (go to 3.1 B) ☑ No (go to 3.2)

3.1 B

Disclose wet testing conditions, including test duration (chronic or acute), the organisms tested, and the testing results. Provide any results of toxicity identification evaluations (TIE) or toxicity reduction evaluations (TRE) if applicable. Please indicate the conclusions of the test(s) including any pollutants identified as causing toxicity and steps the facility is taking to remedy the toxicity.

3.2 CONTRACT ANALYSIS INFORMATION

Were any of the analyses reported herein, above, or on Table 1 performed by a contract laboratory or consulting firm?

☑ Yes (list the name, address, telephone number, and pollutants analyzed by each laboratory or firm.) ☐ No *(go to 4.0)*

A. LAB NAME	B. ADDRESS	C. TELEPHONE *(area code and number)*	D. POLLUTANTS ANALYZED *(list or group)*
Eurofins	10 Hazelwood Dr. Amherst, NY 14228	716-691-2600	Part A parameters, chloride, fluoride, aluminum, iron, zinc.
Teklab, Inc.	5445 Horseshoe Lake Rd., Collinsville, IL 62234	618-344-1004	Part A parameters, chloride, fluoride, aluminum, iron, zinc.

4.0 STORMWATER

4.1
Do you have industrial stormwater discharges from the site? If so, attach a site map outlining drainage areas served by each outfall. Indicate the following attributes within each drainage area: pavement or other impervious surfaces; buildings; outdoor storage areas; material loading and unloading areas; outdoor industrial activities; structural stormwater control measures; hazardous waste treatment, storage, and disposal units; and wells or springs in the area.

OUTFALL NUMBER	TOTAL AREA DRAINED (PROVIDE UNITS)	TYPES OF SURFACES (VEGETATED, STONE, PAVED, ETC)	BEST MANAGEMENT PRACTICES EMPLOYED; INCLUDE STRUCTURAL BMPS AND TREATMENT DESIGN FLOW FOR BMPS DESCRIBE HOW FLOW IS MEASURED
002	52.5 acres	Vegetated/soil	Sediment pond with skimmer (4.7 cfs). Flow is controlled by manual valve.
003	49 acres	Vegetated/soil	Check dams and rip-rap (4.0 cfs). Flow is calculated from rain event.
005	20.65 acres	Vegetated/soil	Sediment pond with skimmer (2.27 cfs). Flow is controlled by manual valve.
007	12.5 acres	Vegetated/soil	Sediment pond (0.601 cfs). Flow from rain event and skimmer capacity.
008	7.68 acres	Vegetated/soil	Sediment pond (0.602 cfs). Flow from rain event and skimmer capacity.

4.2 STORMWATER FLOWS
Provide the date of sampling with the flows, and how the flows were estimated.
Outfall 007: 3/23/2021 and 6/21/2021, 2.26 mgd flow; Outfall 008: 3/31/2022, 6/14/2022, 10/26/2022, and 3/30/2023, 2.26 mgd flow

SIGNATORY REQUIREMENTS

5.0 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
Gregg Asciutto, Area President	314-291-3131
SIGNATURE (SEE INSTRUCTIONS)	DATE SIGNED
Gregg Asciutto	3/28/24

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

FORM C TABLE 1 FOR 3.0 - ITEMS A AND B

EFFLUENT (AND INTAKE) CHARACTERISTICS THIS OUTFALL IS: OUTFALL NO. 007

3.0 PART A – You must provide the results of at least one analysis for every pollutant in Part A. Complete one table for each outfall or proposed outfall. See instructions.

1. POLLUTANT	2. VALUES							3. UNITS *(specify if blank)*	
	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUES		C. LONG TERM AVERAGE VALUES		D. NO. OF ANALYSES	A. CONCEN-TRATION	B. MASS
	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS			
A. Biochemical Oxygen Demand, 5-day (BOD_5)	31.4				18.5		2	mg/L	
B. Chemical Oxygen Demand (COD)	64.8				62.65		2	mg/L	
C. Total Organic Carbon (TOC)	10				10		1	mg/L	
D. Total Suspended Solids (TSS)	67.2				38		2	mg/L	
E. Ammonia as N	2.0				1.5		2	mg/L	
F. Flow	VALUE 2.26		VALUE		VALUE 2.26		2	MILLIONS OF GALLONS PER DAY (MGD)	
G. Temperature *(winter)*	VALUE 46.22		VALUE		VALUE 44.24		2	°F	
H. Temperature *(summer)*	VALUE 84.02		VALUE		VALUE 73.22		3	°F	
I. pH	MINIMUM 7.2		MAXIMUM 7.3		AVERAGE		2	STANDARD UNITS (SU)	

3.0 PART B – Mark "X" in column 2A for each pollutant you know or have reason to believe is present. Mark "X" in column 2B for each pollutant you believe to be absent. If you mark Column 2A for any pollutant, you must provide the results for at least one analysis for the pollutant. Complete one table for each outfall (intake). Provide results for additional parameters not listed here in Part 3.0 C.

1. POLLUTANT AND CAS NUMBER *(if available)*	2. MARK "X"		3. VALUES							4. UNITS	
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUES		C. LONG TERM AVERAGE VALUES		D. NO. OF ANALYSES	A. CONCEN-TRATION	B. MASS
			CONCENTRATION	MASS	CONCENTRATION	MASS	CONCENTRATION	MASS			
Subpart 1 – Conventional and Non-Conventional Pollutants											
A. Alkalinity ($CaCO_3$)		X	MINIMUM		MINIMUM		MINIMUM				
B. Bromide (24959-67-9)		X									
C. Chloride (16887-00-6)	X		21.9				20.35		2	mg/L	
D. Chlorine, Total Residual		X									
E. Color		X									
F. Conductivity		X									
F. Cyanide, Amenable to Chlorination		X									

1. POLLUTANT AND CAS NUMBER *(if available)*	2. MARK "X"		3. VALUES							4. UNITS	
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE		C. LONG TERM AVERAGE VALUE		D. NO. OF ANALYSES	A. CONCEN-TRATION	B. MASS
			CONCENTRATION	MASS	CONCENTRATION	MASS	CONCENTRATION	MASS			
Subpart 1 – Conventional and Non-Conventional Pollutants (Continued)											
G. *E. coli*		X									
H. Fluoride (16984-48-8)	X		0.19				0.139		2	mg/L	
I. Nitrate plus Nitrate *(as N)*		X									
J. Kjeldahl, Total (as N)		X									
K. Nitrogen, Total Organic *(as N)*		X									
L. Oil and Grease		X									
M. Phenols, Total		X									
N. Phosphorus *(as P)*, Total (7723-14-0)		X									
O. Sulfate *(as SO^4)* (14808-79-8)		X									
P. Sulfide *(as S)*		X									
Q. Sulfite (as SO^3) (14265-45-3)		X									
R. Surfactants		X									
S. Trihalomethanes, Total		X									
Subpart 2 – Metals											
1M. Aluminum, Total Recoverable (7429-90-5)	X		6.52				3.57		2	mg/L	
2M. Antimony, Total Recoverable (7440-36-9)		X									
3M. Arsenic, Total Recoverable (7440-38-2)		X									
4M. Barium, Total Recoverable (7440-39-3)		X									
5M. Beryllium, Total Recoverable (7440-41-7)		X									
6M. Boron, Total Recoverable (7440-42-8)		X									
7M. Cadmium, Total Recoverable (7440-43-9)		X									
8M. Chromium III Total Recoverable (16065-83-1)		X									
9M. Chromium VI, Dissolved (18540-29-9)		X									
10M. Cobalt, Total Recoverable (7440-48-4)		X									

1. POLLUTANT AND CAS NUMBER *(if available)*	2. MARK "X"		3. VALUES							4. UNITS	
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE		C. LONG TERM AVERAGE VALUE		D. NO. OF ANALYSES	A. CONCEN-TRATION	B. MASS
			CONCENTRATION	MASS	CONCENTRATION	MASS	CONCENTRATION	MASS			
Subpart 2 – Metals (Continued)											
11M. Copper, Total Recoverable (7440-50-8)		X									
12M. Iron, Total Recoverable (7439-89-6)	X		5.32				3.147		2	mg/L	
13M. Lead, Total Recoverable (7439-92-1)		X									
14M. Magnesium, Total Recoverable (7439-95-4)		X									
15M. Manganese, Total Recoverable (7439-96-5)		X									
16M. Mercury, Total Recoverable (7439-97-6)		X									
17M. Methylmercury (22967926)		X									
18M. Molybdenum, Total Recoverable (7439-98-7)		X									
19M. Nickel, Total Recoverable (7440-02-0)		X									
20M. Selenium, Total Recoverable (7782-49-2)		X									
21M. Silver, Total Recoverable (7440-22-4)		X									
22M. Thallium, Total Recoverable (7440-28-0)		X									
23M. Tin, Total Recoverable (7440-31-5)		X									
24M. Titanium, Total Recoverable (7440-32-6)		X									
25M. Zinc, Total Recoverable (7440-66-6)	X		0.469				0.29		2	mg/L	
Subpart 3 – Radioactivity											
1R. Alpha Total		X									
2R. Beta Total		X									
3R. Radium Total		X									
4R. Radium 226 plus 228 Total		X									

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

FORM C TABLE 1 FOR 3.0 - ITEMS A AND B

EFFLUENT (AND INTAKE) CHARACTERISTICS THIS OUTFALL IS: OUTFALL NO. 008

3.0 PART A – You must provide the results of at least one analysis for every pollutant in Part A. Complete one table for each outfall or proposed outfall. See instructions.

1. POLLUTANT	2. VALUES							3. UNITS *(specify if blank)*	
	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUES		C. LONG TERM AVERAGE VALUES		D. NO. OF ANALYSES	A. CONCEN-TRATION	B. MASS
	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS			
A. Biochemical Oxygen Demand, 5-day (BOD_5)	11.3				7.95		4	mg/L	
B. Chemical Oxygen Demand (COD)	33.7				26.7		4	mg/L	
C. Total Organic Carbon (TOC)	38				38		1	mg/L	
D. Total Suspended Solids (TSS)	28				17.85		4	mg/L	
E. Ammonia as N	1.8				0.9		4	mg/L	
F. Flow	VALUE 2.26		VALUE		VALUE 2.26		4	MILLIONS OF GALLONS PER DAY (MGD)	
G. Temperature *(winter)*	VALUE 46.04		VALUE		VALUE 48.92		2	°F	
H. Temperature *(summer)*	VALUE 73.22		VALUE		VALUE 73.22		1	°F	
I. pH	MINIMUM 7.6		MAXIMUM 9.3		AVERAGE		4	STANDARD UNITS (SU)	

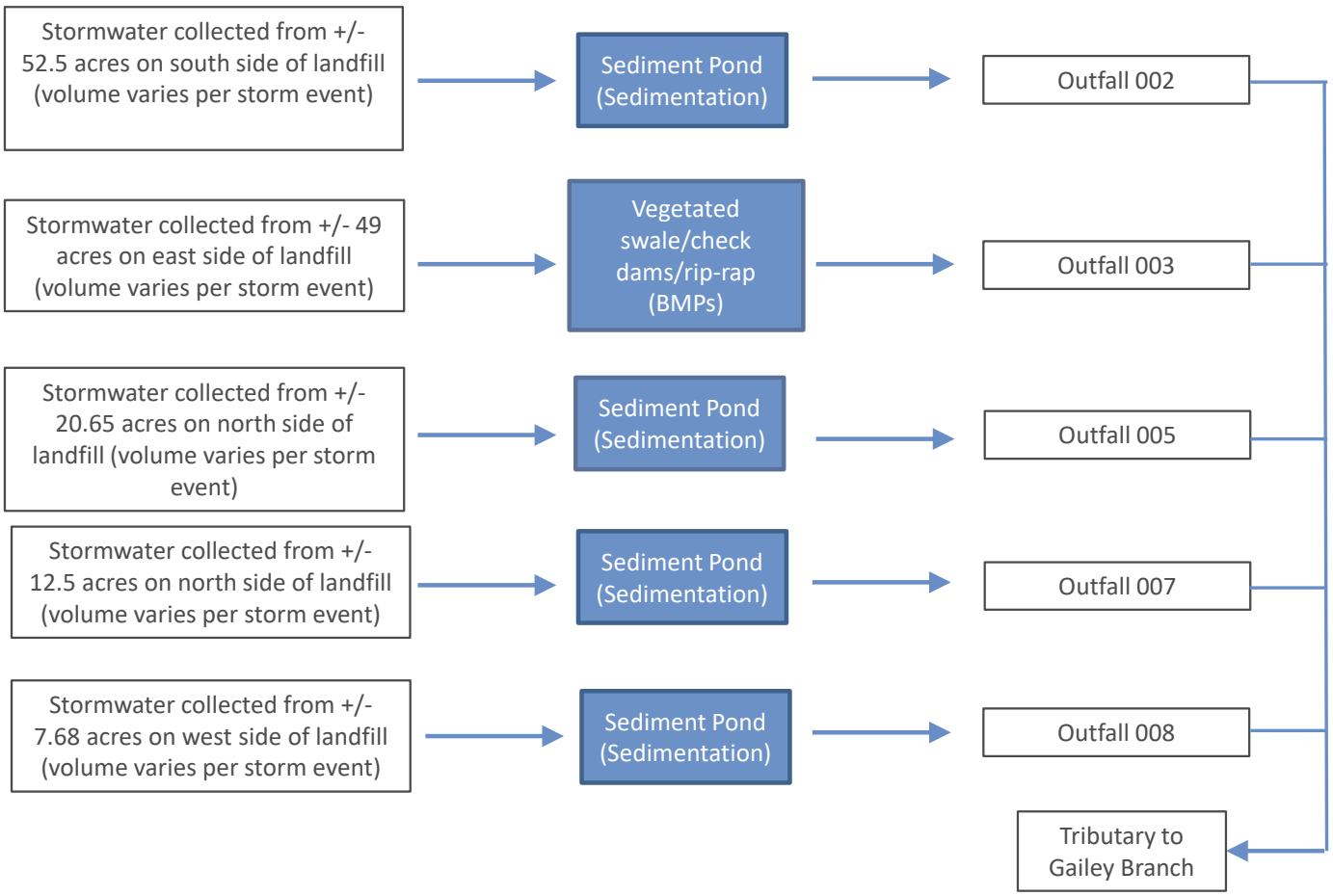
3.0 PART B – Mark "X" in column 2A for each pollutant you know or have reason to believe is present. Mark "X" in column 2B for each pollutant you believe to be absent. If you mark Column 2A for any pollutant, you must provide the results for at least one analysis for the pollutant. Complete one table for each outfall (intake). Provide results for additional parameters not listed here in Part 3.0 C.

1. POLLUTANT AND CAS NUMBER *(if available)*	2. MARK "X"		3. VALUES							4. UNITS	
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUES		C. LONG TERM AVERAGE VALUES		D. NO. OF ANALYSES	A. CONCEN-TRATION	B. MASS
			CONCENTRATION	MASS	CONCENTRATION	MASS	CONCENTRATION	MASS			
Subpart 1 – Conventional and Non-Conventional Pollutants											
A. Alkalinity ($CaCO_3$)		X	MINIMUM		MINIMUM		MINIMUM				
B. Bromide (24959-67-9)		X									
C. Chloride (16887-00-6)	X		44.2				31.08		4	mg/L	
D. Chlorine, Total Residual		X									
E. Color		X									
F. Conductivity		X									
F. Cyanide, Amenable to Chlorination		X									

1. POLLUTANT AND CAS NUMBER *(if available)*	2. MARK "X"		3. VALUES							4. UNITS	
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE		C. LONG TERM AVERAGE VALUE		D. NO. OF ANALYSES	A. CONCEN-TRATION	B. MASS
			CONCENTRATION	MASS	CONCENTRATION	MASS	CONCENTRATION	MASS			
Subpart 1 – Conventional and Non-Conventional Pollutants (Continued)											
G. *E. coli*		X									
H. Fluoride (16984-48-8)		X									
I. Nitrate plus Nitrate *(as N)*		X									
J. Kjeldahl, Total (as N)		X									
K. Nitrogen, Total Organic *(as N)*		X									
L. Oil and Grease	X		20.0				8.85		4	mg/L	
M. Phenols, Total		X									
N. Phosphorus *(as P)*, Total (7723-14-0)		X									
O. Sulfate *(as SO^4)* (14808-79-8)	X		118				67.4		4	mg/L	
P. Sulfide *(as S)*		X									
Q. Sulfite (as SO^3) (14265-45-3)		X									
R. Surfactants		X									
S. Trihalomethanes, Total		X									
Subpart 2 – Metals											
1M. Aluminum, Total Recoverable (7429-90-5)	X		5.08				3.03		4	mg/L	
2M. Antimony, Total Recoverable (7440-36-9)		X									
3M. Arsenic, Total Recoverable (7440-38-2)		X									
4M. Barium, Total Recoverable (7440-39-3)		X									
5M. Beryllium, Total Recoverable (7440-41-7)		X									
6M. Boron, Total Recoverable (7440-42-8)		X									
7M. Cadmium, Total Recoverable (7440-43-9)		X									
8M. Chromium III Total Recoverable (16065-83-1)		X									
9M. Chromium VI, Dissolved (18540-29-9)		X									
10M. Cobalt, Total Recoverable (7440-48-4)		X									

1. POLLUTANT AND CAS NUMBER *(if available)*	2. MARK "X"		3. VALUES							4. UNITS	
	A. BELIEVED PRESENT	B. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE		C. LONG TERM AVERAGE VALUE		D. NO. OF ANALYSES	A. CONCEN-TRATION	B. MASS
			CONCENTRATION	MASS	CONCENTRATION	MASS	CONCENTRATION	MASS			
Subpart 2 – Metals (Continued)											
11M. Copper, Total Recoverable (7440-50-8)		X									
12M. Iron, Total Recoverable (7439-89-6)	X		3.88				2.49		4	mg/L	
13M. Lead, Total Recoverable (7439-92-1)		X									
14M. Magnesium, Total Recoverable (7439-95-4)		X									
15M. Manganese, Total Recoverable (7439-96-5)		X									
16M. Mercury, Total Recoverable (7439-97-6)		X									
17M. Methylmercury (22967926)		X									
18M. Molybdenum, Total Recoverable (7439-98-7)		X									
19M. Nickel, Total Recoverable (7440-02-0)		X									
20M. Selenium, Total Recoverable (7782-49-2)		X									
21M. Silver, Total Recoverable (7440-22-4)		X									
22M. Thallium, Total Recoverable (7440-28-0)		X									
23M. Tin, Total Recoverable (7440-31-5)		X									
24M. Titanium, Total Recoverable (7440-32-6)		X									
25M. Zinc, Total Recoverable (7440-66-6)	X		0.568				0.16		4	mg/L	
Subpart 3 – Radioactivity											
1R. Alpha Total		X									
2R. Beta Total		X									
3R. Radium Total		X									
4R. Radium 226 plus 228 Total		X									

Schematic of Stormwater Flow
Eagle Ridge Landfill
Bowling Green, Pike County, Missouri



Notes:
1. Existing aerial imagery and topographical information within landfill property boundary was taken from a survey conducted by Wellston Associates Land Surveyors, LLC. dated June 6, 2023. Aerial imagery outside of property boundary obtained by Google Earth dated October 6, 2020.

2. Property boundary and cell boundaries provided by IngenAE in a drawing titled"2018.03.30 ER - Vertical Expansion".

Site Map

Eagle Ridge Landfill
Meridian Land Company, LLC
Pike County, Missouri
3/12/2024

150 75 0 150 Feet
1 inch equals 150 Feet

DISCLAIMER:
This drawing and the information contained herein is for general presentation purposes only and is a compilation of shapefile(s) provided by various source(s). The source and accuracy of the file(s) has not been verified by HHNT and therefore the drawing is not intended for use as a engineering drawing or for design purposes.

Legend
- Approximate Property Boundary
- Rock Check Dam
- Storm Ditch
- Storm Pipe
- Existing Rip Rap
- Approximate Cell Boundaries
- Stormwater Outfalls
- E-TOPO-CONT-MINOR
- Drainage Areas
- Head Wall
- Grate Inlet
- Stormwater Ponds

HHNT
HODGES, HARBIN, NEWBERRY & TRIBBLE, INC.
Consulting Engineers

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

FORM D – APPLICATION FOR DISCHARGE PERMIT – PRIMARY INDUSTRIES

FOR AGENCY USE ONLY	
CHECK NO.	
DATE RECEIVED	FEE SUBMITTED

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

1.00 NAME OF FACILITY

Eagle Ridge Landfill

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

MO 0111996

This form is to be filled out in addition to forms A and C "Application for Discharge Permit" for the Industries listed below:

INDUSTRY CATEGORY

- Adhesives and sealants
- Aluminum forming
- Auto and other laundries
- Battery manufacturing
- Coal mining
- Coil coating
- Copper forming
- Electric and electronic compounds
- Electroplating
- Explosives manufacturing
- Foundries
- Gum and wood chemicals
- Inorganic chemicals manufacturing
- Iron and steel manufacturing
- Leather tanning and finishing
- Landfill
- Mechanical products manufacturing
- Nonferrous metals manufacturing
- Ore mining
- Organic chemicals manufacturing
- Paint and ink formulation
- Pesticides
- Petroleum refining
- Pharmaceutical preparations
- Photographic equipment and supplies
- Plastic and synthetic materials manufacturing
- Plastic processing
- Porcelain enameling
- Printing and publishing
- Pulp and paperboard mills
- Rubber processing
- Soap and detergent manufacturing
- Steam electric power plants
- Textile mills
- Timber products processing

APPLICATION FOR DISCHARGE PERMIT
FORM D – PRIMARY INDUSTRIES

TABLE II

NPDES # (*IF ASSIGNED*)	OUTFALL NUMBER
0111996	007

1.30 If you are a primary industry and this outfall contains process wastewater, refer to Table A in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-A for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. Mark "X" in column 2-B for each pollutant you know or have reason to believe is present. Mark "X" in column 2-C for each pollutant you believe to be absent. If you mark either columns 2-A or 2-B for any pollutant, you must provide the results of at least one analysis for that pollutant. Note that there are seven pages to this part, please review each carefully. Complete one table (*all seven pages*) for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	A. TEST-ING REQUIRED	B. BELIEVED PRESENT	C. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (*if available*)		C. LONG TERM AVRG. VALUE (*if available*)		D. NO. OF ANALYSES	A. CONCEN-TRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
METALS, AND TOTAL PHENOLS															
1M. Antimony, Total (7440-36-9)			✓												
2M. Arsenic, Total (7440-38-2)			✓												
3M. Beryllium, Total (7440-41-7)			✓												
4M. Cadmium, Total (7440-43-9)			✓												
5M. Chromium III (16065-83-1)			✓												
6M. Chromium VI (18540-29-9)			✓												
7M. Copper, Total (7440-50-8)			✓												
8M. Lead, Total (7439-92-1)			✓												
9M. Magnesium Total (7439-95-4)			✓												
10M. Mercury, Total (7439-97-6)			✓												
11M. Molybdenum Total (7439-98-7)			✓												
12M. Nickel, Total (7440-02-0)			✓												
13M. Selenium, Total (7782-49-2)			✓												
14M. Silver, Total (7440-22-4)			✓												
15M. Thallium, Total (7440-28-0)			✓												
16M. Tin Total (7440-31-5)			✓												
17M. Titanium Total (7440-32-6)			✓												
18M. Zinc, Total (7440-66-6)	✓			0.469				0.29		2	mg/L				

CONTINUED FROM PAGE 3

19M. Cyanide, Amenable to Chlorination	☐	☐	☑												
20M. Phenols, Total	☐	☐	☑												
DIOXIN															
2,3,7,8 – Tetra – chlorodibenzo-P-Dioxin (1764-01-6)	☐	☐	☑	**DESCRIBE RESULTS**											

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	A. TESTING REQUIRED	B. BELIEVED PRESENT	C. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (*if available*)		C. LONG TERM AVRG. VALUE (*if available*)		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – VOLATILE COMPOUNDS															
1V. Acrolein (107-02-8)	☐	☐	☑												
2V. Acrylonitrile (107-13-1)	☐	☐	☑												
3V. Benzene (71-43-2)	☐	☐	☑												
4V. Bis (*Chloromethyl*) Ether (542-88-1)	☐	☐	☑												
5V. Bromoform (75-25-2)	☐	☐	☑												
6V. Carbon Tetrachloride (56-23-5)	☐	☐	☑												
7V. Chlorobenzene (108-90-7)	☐	☐	☑												
8V. Chlorodibromomethane (124-48-1)	☐	☐	☑												
9V. Chloroethane (75-00-3)	☐	☐	☑												
10V. 2-Chloroethylvinyl Ether (110-75-8)	☐	☐	☑												
11V. Chloroform (67-66-3)	☐	☐	☑												
12V. Dichlorobromomethane (75-27-4)	☐	☐	☑												
13V. Dichloro-difluoromethane (75-71-8)	☐	☐	☑												
14V. 1,1 – Dichloroethane (75-34-3)	☐	☐	☑												
15V. 1,2 – Dichloroethane (107-06-2)	☐	☐	☑												
16V. 1,1 – Dichloroethylene (75-35-4)	☐	☐	☑												
17V. 1,3 – Dichloropropane (78-87-5)	☐	☐	☑												
18V. 1,2 –Dichloropropylene (542-75-6)	☐	☐	☑												
19V. Ethylbenzene (100-41-4)	☐	☐	☑												
20V. Methyl Bromide (74-83-9)	☐	☐	☑												
21V. Methyl Chloride (74-87-3)	☐	☐	☑												

CONTINUE ON PAGE 4

NPDES # (*IF ASSIGNED*)	OUTFALL NUMBER
0111996	007

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	A. TESTING RE-QUIRED	B. BELIEVED PRESENT	C. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (*if available*)		C. LONG TERM AVRG. VALUE (*if available*)		D. NO. OF ANALYSES	A. CONCEN-TRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC.MS FRACTION – VOLATILE COMPOUNDS *(continued)*															
22V. Methylene Chloride (75-09-2)	☐	☐	☑												
23V. 1,1,2,2 – Tetra-chloroethane (79-34-5)	☐	☐	☑												
24V. Tetrachloroethylene (127-18-4)	☐	☐	☑												
25V. Toluene (108-88-3)	☐	☐	☑												
26V. 1,2 – Trans Dichloroethylene (156-60-5)	☐	☐	☑												
27V. 1,1,1 – Tri – chloroethane (71-55-6)	☐	☐	☑												
28V. 1,1,2 – Tri-chloroethane (79-00-5)	☐	☐	☑												
29V. Trichloro – ethylene (79-01-6)	☐	☐	☑												
30V. Trichloro – fluoromethane (75-69-4)	☐	☐	☑												
31V. Vinyl Chloride (75-01-4)	☐	☐	☑												
GC/MS FRACTION – ACID COMPOUNDS															
1A. 2 – Chlorophenol (95-57-8)	☐	☐	☑												
2A. 2,4 – Dichloro – phenol (120-83-2)	☐	☐	☑												
3A. 2,4 – Dimethyl – phenol (105-67-9)	☐	☐	☑												
4A. 4,6 – Dinitro - O-Cresol (534-52-1)	☐	☐	☑												
5A. 2,4 – Dinitro – phenol (51-28-5)	☐	☐	☑												
6A. 2-Nitrophenol (88-75-5)	☐	☐	☑												
7A. 4-Nitrophenol (100-02-7)	☐	☐	☑												
8A. P – Chloro – M Cresol (59-50-7)	☐	☐	☑												
9A. Pentachloro – phenol (87-86-5)	☐	☐	☑												
10A. Phenol (108-952)	☐	☐	☑												
11A. 2,4,6 – Trichloro-phenol (88-06-2)	☐	☐	☑												
12A. 2 - methyl – 4,6 dinitrophenol (534-52-1)	☐	☐	☑												

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	A. TESTING REQUIRED	B. BELIEVED PRESENT	C. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (*if available*)		C. LONG TERM AVRG. VALUE (*if available*)		D. NO. OF ANALYSES	A. CONCEN-TRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS															
1B. Acenaphthene (83-32-9)	☐	☐	☑												
2B. Acenaphtylene (208-96-8)	☐	☐	☑												
3B. Anthracene (120-12-7)	☐	☐	☑												
4B. Benzidine (92-87-5)	☐	☐	☑												
5B. Benzo (a) Anthracene (56-55-3)	☐	☐	☑												
6B. Benzo (a) Pyrene (50-32-8)	☐	☐	☑												
7B. 3,4 – Benzofluoranthene (205-99-2)	☐	☐	☑												
8B. Benzo (ghi) Perylene (191-24-2)	☐	☐	☑												
9B. Benzo (k) Fluoranthene (207-08-9)	☐	☐	☑												
10B. Bis (2-Chloroethoxy) Methane (111-91-1)	☐	☐	☑												
11B. Bis (2-Chloroethyl) Ether (111-44-4)	☐	☐	☑												
12B. Bis (2-Chloroisopropyl) Ether (39638-32-9)	☐	☐	☑												
13B. Bis (2-Ethylhexyl) Phthalate (117-81-7)	☐	☐	☑												
14B. 4-Bromophenyl Phenyl Ether (101-55-3)	☐	☐	☑												
15B. Butyl Benzyl Phthalate (85-68-7)	☐	☐	☑												
16B. 2-Chloronaphthalene (91-58-7)	☐	☐	☑												
17B. 4-Chlorophenyl Phenyl Ether (7005-72-3)	☐	☐	☑												
18B. Chrysene (218-01-9)	☐	☐	☑												
19B. Dibenzo (a.h) Anthracene (53-70-3)	☐	☐	☑												
20B. 1,2 – Dichlorobenzene (95-50-1)	☐	☐	☑												
21B. 1,3 – Dichlorobenzene (541-73-1)	☐	☐	☑												

CONTINUED FROM PAGE 5

NPDES # (*IF ASSIGNED*)	OUTFALL NUMBER
0111996	007

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	A. TESTING REQUIRED	B. BELIEVED PRESENT	C. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (*if available*)		C. LONG TERM AVRG. VALUE (*if available*)		D. NO. OF ANALYSES	A. CONCEN-TRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS *(continued)*															
22B. 1, 4-Dichlorobenzene (106-46-7)	☐	☐	☑												
23B. 3, 3'-Dichlorobenzidine (91-94-1)	☐	☐	☑												
24B. Diethyl Phthalate (84-66-2)	☐	☐	☑												
25B. Dimethyl Phthalate (131-11-3)	☐	☐	☑												
26B. Di-N-butyl Phthalate (84-74-2)	☐	☐	☑												
27B. 2,4-Dinitrotoluene (121-14-2)	☐	☐	☑												
28B. 2,6-Dinitrotoluene (606-20-2)	☐	☐	☑												
29B. Di-N-Octyphthalate (117-84-0)	☐	☐	☑												
30B. 1,2-Diphenylhydrazine (*as Azobenzene)* (122-66-7)	☐	☐	☑												
31B. Fluoranthene (206-44-0)	☐	☐	☑												
32B. Fluorene (86-73-7)	☐	☐	☑												
33B. Hexachlorobenzene (87-68-3)	☐	☐	☑												
34B. Hexachlorobutadiene (87-68-3)	☐	☐	☑												
35B. Hexachloro-cyclopentadiene (77-47-4)	☐	☐	☑												
36B. Hexachloroethane (67-72-1)	☐	☐	☑												
37B. Indeno (1,2,3-c-d) Pyrene (193-39-5)	☐	☐	☑												
38B. Isophorone (78-59-1)	☐	☐	☑												
39B. Naphthalene (91-20-3)	☐	☐	☑												
40B. Nitrobenzene (98-95-3)	☐	☐	☑												
41B. N-Nitro-sodimethylamine (62-75-9)	☐	☐	☑												

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	A. TES-ING REQUIRED	B. BELIEVED PRESENT	C. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (*if available*)		C. LONG TERM AVRG. VALUE (*if available*)		D. NO. OF ANALYSES	A. CONCEN-TRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS *(continued)*															
42B. N-Nitroso N-Propylamine (621-64-7)	☐	☐	☑												
43B. N-Nitro-sodiphenylamine (86-30-6)	☐	☐	☑												
44B. Phenanthrene (85-01-8)	☐	☐	☑												
45B. Pyrene (129-00-0)	☐	☐	☑												
46B. 1,2,4-Tri chlorobenzene (120-82-1)	☐	☐	☑												
GC/MS FRACTION - PESTICIDES															
1P. Aldrin (309-00-2)	☐	☐	☑												
2P. α-BHC (319-84-6)	☐	☐	☑												
3P. β-BHC (319-84-6)	☐	☐	☑												
4P. γ-BHC (58-89-9)	☐	☐	☑												
5P. δ-BHC (319-86-8)	☐	☐	☑												
6P. Chlordane (57-74-9)	☐	☐	☑												
7P. 4,4'-DDT (50-29-3)	☐	☐	☑												
8P. 4,4'-DDE (72-55-9)	☐	☐	☑												
9P. 4,4'-DDD (72-54-8)	☐	☐	☑												
10P. Dieldrin (60-57-1)	☐	☐	☑												
11P. α-Endosulfan (115-29-7)	☐	☐	☑												
12P. β-Endosultan (115-29-7)	☐	☐	☑												
13P. Endosulfan Sulfate (1031-07-8)	☐	☐	☑												
14P. Endrin (72-20-8)	☐	☐	☑												
15P. Endrin Aldehyde (7421-93-4)	☐	☐	☑												
16P. Heptachlor (76-44-8)	☐	☐	☑												

CONTINUED FROM PAGE 7

NPDES # (*IF ASSIGNED*)	OUTFALL NUMBER
0111996	007

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	A. TESTING REQUIRED	B. BELIEVED PRESENT	C. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (*if available*)		C. LONG TERM AVRG. VALUE (*if available*)		D. NO. OF ANALYSES	A. CONCEN-TRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – PESTICISES *(continued)*															
17P. Heptachlor Epoxide (1024-57-3)	☐	☐	☑												
18P. PCB-1242 (53469-21-9)	☐	☐	☑												
19P. PBC-1254 (11097-69-1)	☐	☐	☑												
20P. PCB-1221 (11104-28-2)	☐	☐	☑												
21P. PCB-1232 (11141-16-5)	☐	☐	☑												
22P. PCB-1248 (12672-29-6)	☐	☐	☑												
23P. PCB-1260 (11096-82-5)	☐	☐	☑												
24P. PCB-1016 (12674-11-2)	☐	☐	☑												
25P. Toxaphene (8001-35-2)	☐	☐	☑												
J. RADIOACTIVITY															
(1) Alpha Total	☐	☐	☑												
(2) Beta Total	☐	☐	☑												
(3) Radium Total	☐	☐	☑												
(4) Radium 226 Total	☐	☐	☑												

APPLICATION FOR DISCHARGE PERMIT
FORM D – PRIMARY INDUSTRIES

TABLE II

NPDES # (*IF ASSIGNED*)	OUTFALL NUMBER
0111996	008

1.30 If you are a primary industry and this outfall contains process wastewater, refer to Table A in the instructions to determine which of the GC/MS fractions you must test for. Mark "X" in column 2-A for all such GC/MS fractions that apply to your industry and for ALL toxic metals, cyanides, and total phenols. Mark "X" in column 2-B for each pollutant you know or have reason to believe is present. Mark "X" in column 2-C for each pollutant you believe to be absent. If you mark either columns 2-A or 2-B for any pollutant, you must provide the results of at least one analysis for that pollutant. Note that there are seven pages to this part, please review each carefully. Complete one table (*all seven pages*) for each outfall. See instructions for additional details and requirements.

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	A. TEST-ING REQUIRED	B. BELIEVED PRESENT	C. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (*if available*)		C. LONG TERM AVRG. VALUE (*if available*)		D. NO. OF ANALYSES	A. CONCEN-TRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
METALS, AND TOTAL PHENOLS															
1M. Antimony, Total (7440-36-9)			✓												
2M. Arsenic, Total (7440-38-2)			✓												
3M. Beryllium, Total (7440-41-7)			✓												
4M. Cadmium, Total (7440-43-9)			✓												
5M. Chromium III (16065-83-1)			✓												
6M. Chromium VI (18540-29-9)			✓												
7M. Copper, Total (7440-50-8)			✓												
8M. Lead, Total (7439-92-1)			✓												
9M. Magnesium Total (7439-95-4)			✓												
10M. Mercury, Total (7439-97-6)			✓												
11M. Molybdenum Total (7439-98-7)			✓												
12M. Nickel, Total (7440-02-0)			✓												
13M. Selenium, Total (7782-49-2)			✓												
14M. Silver, Total (7440-22-4)			✓												
15M. Thallium, Total (7440-28-0)			✓												
16M. Tin Total (7440-31-5)			✓												
17M. Titanium Total (7440-32-6)			✓												
18M. Zinc, Total (7440-66-6)	✓			0.568				0.16		4	mg/L				

CONTINUED FROM PAGE 3

19M. Cyanide, Amenable to Chlorination	☐	☐	☑												
20M. Phenols, Total	☐	☐	☑												
DIOXIN															
2,3,7,8 – Tetra – chlorodibenzo-P-Dioxin (1764-01-6)	☐	☐	☑	**DESCRIBE RESULTS**											

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	A. TESTING REQUIRED	B. BELIEVED PRESENT	C. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (*if available*)		C. LONG TERM AVRG. VALUE (*if available*)		D. NO. OF ANALYSES	A. CONCENTRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – VOLATILE COMPOUNDS															
1V. Acrolein (107-02-8)	☐	☐	☑												
2V. Acrylonitrile (107-13-1)	☐	☐	☑												
3V. Benzene (71-43-2)	☐	☐	☑												
4V. Bis (*Chloromethyl*) Ether (542-88-1)	☐	☐	☑												
5V. Bromoform (75-25-2)	☐	☐	☑												
6V. Carbon Tetrachloride (56-23-5)	☐	☐	☑												
7V. Chlorobenzene (108-90-7)	☐	☐	☑												
8V. Chlorodibromomethane (124-48-1)	☐	☐	☑												
9V. Chloroethane (75-00-3)	☐	☐	☑												
10V. 2-Chloroethylvinyl Ether (110-75-8)	☐	☐	☑												
11V. Chloroform (67-66-3)	☐	☐	☑												
12V. Dichlorobromomethane (75-27-4)	☐	☐	☑												
13V. Dichloro-difluoromethane (75-71-8)	☐	☐	☑												
14V. 1,1 – Dichloroethane (75-34-3)	☐	☐	☑												
15V. 1,2 – Dichloroethane (107-06-2)	☐	☐	☑												
16V. 1,1 – Dichloroethylene (75-35-4)	☐	☐	☑												
17V. 1,3 – Dichloropropane (78-87-5)	☐	☐	☑												
18V. 1,2 –Dichloropropylene (542-75-6)	☐	☐	☑												
19V. Ethylbenzene (100-41-4)	☐	☐	☑												
20V. Methyl Bromide (74-83-9)	☐	☐	☑												
21V. Methyl Chloride (74-87-3)	☐	☐	☑												

CONTINUE ON PAGE 4

NPDES # (*IF ASSIGNED*)	OUTFALL NUMBER
0111996	008

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	A. TESTING RE-QUIRED	B. BELIEVED PRESENT	C. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (*if available*)		C. LONG TERM AVRG. VALUE (*if available*)		D. NO. OF ANALYSES	A. CONCEN-TRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC.MS FRACTION – VOLATILE COMPOUNDS *(continued)*															
22V. Methylene Chloride (75-09-2)	☐	☐	☑												
23V. 1,1,2,2 – Tetra-chloroethane (79-34-5)	☐	☐	☑												
24V. Tetrachloroethylene (127-18-4)	☐	☐	☑												
25V. Toluene (108-88-3)	☐	☐	☑												
26V. 1,2 – Trans Dichloroethylene (156-60-5)	☐	☐	☑												
27V. 1,1,1 – Tri – chloroethane (71-55-6)	☐	☐	☑												
28V. 1,1,2 – Tri-chloroethane (79-00-5)	☐	☐	☑												
29V. Trichloro – ethylene (79-01-6)	☐	☐	☑												
30V. Trichloro – fluoromethane (75-69-4)	☐	☐	☑												
31V. Vinyl Chloride (75-01-4)	☐	☐	☑												
GC/MS FRACTION – ACID COMPOUNDS															
1A. 2 – Chlorophenol (95-57-8)	☐	☐	☑												
2A. 2,4 – Dichloro – phenol (120-83-2)	☐	☐	☑												
3A. 2,4 – Dimethyl – phenol (105-67-9)	☐	☐	☑												
4A. 4,6 – Dinitro - O-Cresol (534-52-1)	☐	☐	☑												
5A. 2,4 – Dinitro – phenol (51-28-5)	☐	☐	☑												
6A. 2-Nitrophenol (88-75-5)	☐	☐	☑												
7A. 4-Nitrophenol (100-02-7)	☐	☐	☑												
8A. P – Chloro – M Cresol (59-50-7)	☐	☐	☑												
9A. Pentachloro – phenol (87-86-5)	☐	☐	☑												
10A. Phenol (108-952)	☐	☐	☑												
11A. 2,4,6 – Trichloro-phenol (88-06-2)	☐	☐	☑												
12A. 2 - methyl – 4,6 dinitrophenol (534-52-1)	☐	☐	☑												

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	A. TESTING REQUIRED	B. BELIEVED PRESENT	C. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (*if available*)		C. LONG TERM AVRG. VALUE (*if available*)		D. NO. OF ANALYSES	A. CONCEN-TRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS															
1B. Acenaphthene (83-32-9)	☐	☐	☑												
2B. Acenaphtylene (208-96-8)	☐	☐	☑												
3B. Anthracene (120-12-7)	☐	☐	☑												
4B. Benzidine (92-87-5)	☐	☐	☑												
5B. Benzo (a) Anthracene (56-55-3)	☐	☐	☑												
6B. Benzo (a) Pyrene (50-32-8)	☐	☐	☑												
7B. 3,4 – Benzofluoranthene (205-99-2)	☐	☐	☑												
8B. Benzo (ghi) Perylene (191-24-2)	☐	☐	☑												
9B. Benzo (k) Fluoranthene (207-08-9)	☐	☐	☑												
10B. Bis (2-Chloroethoxy) Methane (111-91-1)	☐	☐	☑												
11B. Bis (2-Chloroethyl) Ether (111-44-4)	☐	☐	☑												
12B. Bis (2-Chloroisopropyl) Ether (39638-32-9)	☐	☐	☑												
13B. Bis (2-Ethylhexyl) Phthalate (117-81-7)	☐	☐	☑												
14B. 4-Bromophenyl Phenyl Ether (101-55-3)	☐	☐	☑												
15B. Butyl Benzyl Phthalate (85-68-7)	☐	☐	☑												
16B. 2-Chloronaphthalene (91-58-7)	☐	☐	☑												
17B. 4-Chlorophenyl Phenyl Ether (7005-72-3)	☐	☐	☑												
18B. Chrysene (218-01-9)	☐	☐	☑												
19B. Dibenzo (a.h) Anthracene (53-70-3)	☐	☐	☑												
20B. 1,2 – Dichlorobenzene (95-50-1)	☐	☐	☑												
21B. 1,3 – Dichlorobenzene (541-73-1)	☐	☐	☑												

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	A. TES-ING REQUIRED	B. BELIEVED PRESENT	C. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (*if available*)		C. LONG TERM AVRG. VALUE (*if available*)		D. NO. OF ANALYSES	A. CONCEN-TRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS *(continued)*															
42B. N-Nitroso N-Propylamine (621-64-7)	☐	☐	☑												
43B. N-Nitro-sodiphenylamine (86-30-6)	☐	☐	☑												
44B. Phenanthrene (85-01-8)	☐	☐	☑												
45B. Pyrene (129-00-0)	☐	☐	☑												
46B. 1,2,4-Tri chlorobenzene (120-82-1)	☐	☐	☑												
GC/MS FRACTION - PESTICIDES															
1P. Aldrin (309-00-2)	☐	☐	☑												
2P. α-BHC (319-84-6)	☐	☐	☑												
3P. β-BHC (319-84-6)	☐	☐	☑												
4P. γ-BHC (58-89-9)	☐	☐	☑												
5P. δ-BHC (319-86-8)	☐	☐	☑												
6P. Chlordane (57-74-9)	☐	☐	☑												
7P. 4,4'-DDT (50-29-3)	☐	☐	☑												
8P. 4,4'-DDE (72-55-9)	☐	☐	☑												
9P. 4,4'-DDD (72-54-8)	☐	☐	☑												
10P. Dieldrin (60-57-1)	☐	☐	☑												
11P. α-Endosulfan (115-29-7)	☐	☐	☑												
12P. β-Endosultan (115-29-7)	☐	☐	☑												
13P. Endosulfan Sulfate (1031-07-8)	☐	☐	☑												
14P. Endrin (72-20-8)	☐	☐	☑												
15P. Endrin Aldehyde (7421-93-4)	☐	☐	☑												
16P. Heptachlor (76-44-8)	☐	☐	☑												

CONTINUED FROM PAGE 5

NPDES # (*IF ASSIGNED*)	OUTFALL NUMBER
0111996	008

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	A. TESTING REQUIRED	B. BELIEVED PRESENT	C. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (*if available*)		C. LONG TERM AVRG. VALUE (*if available*)		D. NO. OF ANALYSES	A. CONCEN-TRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS *(continued)*															
22B. 1, 4-Dichlorobenzene (106-46-7)	☐	☐	☑												
23B. 3, 3'-Dichlorobenzidine (91-94-1)	☐	☐	☑												
24B. Diethyl Phthalate (84-66-2)	☐	☐	☑												
25B. Dimethyl Phthalate (131-11-3)	☐	☐	☑												
26B. Di-N-butyl Phthalate (84-74-2)	☐	☐	☑												
27B. 2,4-Dinitrotoluene (121-14-2)	☐	☐	☑												
28B. 2,6-Dinitrotoluene (606-20-2)	☐	☐	☑												
29B. Di-N-Octyphthalate (117-84-0)	☐	☐	☑												
30B. 1,2-Diphenylhydrazine (*as Azobenzene)* (122-66-7)	☐	☐	☑												
31B. Fluoranthene (206-44-0)	☐	☐	☑												
32B. Fluorene (86-73-7)	☐	☐	☑												
33B. Hexachlorobenzene (87-68-3)	☐	☐	☑												
34B. Hexachlorobutadiene (87-68-3)	☐	☐	☑												
35B. Hexachloro-cyclopentadiene (77-47-4)	☐	☐	☑												
36B. Hexachloroethane (67-72-1)	☐	☐	☑												
37B. Indeno (1,2,3-c-d) Pyrene (193-39-5)	☐	☐	☑												
38B. Isophorone (78-59-1)	☐	☐	☑												
39B. Naphthalene (91-20-3)	☐	☐	☑												
40B. Nitrobenzene (98-95-3)	☐	☐	☑												
41B. N-Nitro-sodimethylamine (62-75-9)	☐	☐	☑												

CONTINUED FROM THE FRONT

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	A. TES-ING REQUIRED	B. BELIEVED PRESENT	C. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (*if available*)		C. LONG TERM AVRG. VALUE (*if available*)		D. NO. OF ANALYSES	A. CONCEN-TRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – BASE/NEUTRAL COMPOUNDS *(continued)*															
42B. N-Nitroso N-Propylamine (621-64-7)	☐	☐	☑												
43B. N-Nitro-sodiphenylamine (86-30-6)	☐	☐	☑												
44B. Phenanthrene (85-01-8)	☐	☐	☑												
45B. Pyrene (129-00-0)	☐	☐	☑												
46B. 1,2,4-Tri chlorobenzene (120-82-1)	☐	☐	☑												
GC/MS FRACTION - PESTICIDES															
1P. Aldrin (309-00-2)	☐	☐	☑												
2P. α-BHC (319-84-6)	☐	☐	☑												
3P. β-BHC (319-84-6)	☐	☐	☑												
4P. γ-BHC (58-89-9)	☐	☐	☑												
5P. δ-BHC (319-86-8)	☐	☐	☑												
6P. Chlordane (57-74-9)	☐	☐	☑												
7P. 4,4'-DDT (50-29-3)	☐	☐	☑												
8P. 4,4'-DDE (72-55-9)	☐	☐	☑												
9P. 4,4'-DDD (72-54-8)	☐	☐	☑												
10P. Dieldrin (60-57-1)	☐	☐	☑												
11P. α-Endosulfan (115-29-7)	☐	☐	☑												
12P. β-Endosultan (115-29-7)	☐	☐	☑												
13P. Endosulfan Sulfate (1031-07-8)	☐	☐	☑												
14P. Endrin (72-20-8)	☐	☐	☑												
15P. Endrin Aldehyde (7421-93-4)	☐	☐	☑												
16P. Heptachlor (76-44-8)	☐	☐	☑												

CONTINUED FROM PAGE 7

NPDES # (*IF ASSIGNED*)	OUTFALL NUMBER
0111996	008

1. POLLUTANT AND CAS NUMBER (*if available*)	2. MARK "X"			3. EFFLUENT							4. UNITS		5. INTAKE (*optional*)		
	A. TESTING REQUIRED	B. BELIEVED PRESENT	C. BELIEVED ABSENT	A. MAXIMUM DAILY VALUE		B. MAXIMUM 30 DAY VALUE (*if available*)		C. LONG TERM AVRG. VALUE (*if available*)		D. NO. OF ANALYSES	A. CONCEN-TRATION	B. MASS	A. LONG TERM AVRG. VALUE		B. NO OF ANALYSES
				(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS				(1) CONCENTRATION	(2) MASS	
GC/MS FRACTION – PESTICISES *(continued)*															
17P. Heptachlor Epoxide (1024-57-3)	☐	☐	☑												
18P. PCB-1242 (53469-21-9)	☐	☐	☑												
19P. PBC-1254 (11097-69-1)	☐	☐	☑												
20P. PCB-1221 (11104-28-2)	☐	☐	☑												
21P. PCB-1232 (11141-16-5)	☐	☐	☑												
22P. PCB-1248 (12672-29-6)	☐	☐	☑												
23P. PCB-1260 (11096-82-5)	☐	☐	☑												
24P. PCB-1016 (12674-11-2)	☐	☐	☑												
25P. Toxaphene (8001-35-2)	☐	☐	☑												
J. RADIOACTIVITY															
(1) Alpha Total	☐	☐	☑												
(2) Beta Total	☐	☐	☑												
(3) Radium Total	☐	☐	☑												
(4) Radium 226 Total	☐	☐	☑												

2.00 POTENTIAL DISCHARGES NOT COVERED BY ANALYSIS

A. IS ANY POLLUTANT LISTED IN ITEM 1.30 A SUBSTANCE OR A COMPONENT OF A SUBSTANCE WHICH YOU DO OR EXPECT THAT YOU WILL OVER THE NEXT FIVE YEARS USE OR MANUFACTURE AS AN INTERMEDIATE OR FINAL PRODUCT OR BYPRODUCT?

☐ **YES** *(LIST ALL SUCH POLLUTANTS BELOW)* ■ **NO** *(GO TO B)*

B. ARE YOUR OPERATIONS SUCH THAT YOUR RAW MATERIALS, PROCESSES OR PRODUCTS CAN REASONABLE BE EXPECTED TO VARY SO THAT YOUR DISCHARGES OF POLLUTANTS MAY DURING THE NEXT FIVE YEARS EXCEED TWO TIMES THE MAXIMUM VALUES REPORTED IN ITEM 1.30?

☐ **YES** *(COMPLETE C BELOW)* ■ **NO** *(GO TO SECTION 3.00)*

C. IF YOU ANSWERED "YES" TO ITEM B, EXPLAIN BELOW AND DESCRIBE IN DETAIL THE SOURCES AND EXPECTED LEVELS OF SUCH POLLUTANTS THAT YOU ANTICIPATE WILL BE DISCHARGED FROM EACH OUTFALL OVER THE NEXT FIVE YEARS, TO THE BEST OF YOUR ABILIITY AT THIS TIME. CONTINUE ON ADDITIONAL SHEETS IF YOU NEED MORE SPACE.

3.00 CONTRACT ANALYSIS INFORMATION

WERE ANY OF THE ANALYSES REPORTED IN 1.30 PERFORMED BY A CONTRACT LABORATORY OR CONSULTING FIRM?

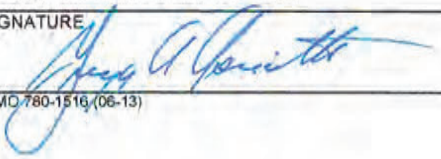
■ **YES** *(LIST THE NAME, ADDRESS, AND TELEPHONE NUMBER OF, AND ANALYZED BY, EACH SUCH LABORATORY OR FIRM BELOW)*

☐ **NO** *(GO TO SECTION 4.00)*

A. NAME	B. ADDRESS	C. TELEPHONE *(area code and number)*	D. POLLUTANTS ANALYZED *(list)*
Eurofins	10 Hazelwood Dr., Amherst, NY	(716) 691-2600	Zinc
Teklab, Inc.	Collinsville, IL	(618) 344-1004	Zinc

4.00 CERTIFICATION

I certify under penalty of law that I have personally examined and am familiar with the information submitted in this application and all attachments and that, based on my inquiry of those individuals immediately responsible for obtaining the information, I believe that the information is true, accurate and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment.

NAME AND OFFICIAL TITLE (TYPE OR PRINT)	PHONE NUMBER (AREA CODE AND NUMBER)
Gregg Asciutto, Area President	(314) 291-3131
SIGNATURE	DATE SIGNED
	3/28/24