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-0001821
Owner:	CF Industries Distribution Facilities, LLC
Address:	2838 County Road 359, Palmyra, MO 63461
Continuing Authority:	Same as above
Address:	Same as above
Facility Name:	CF Industries Distribution Facilities – Palmyra Terminal
Facility Address:	2838 County Road 359, Palmyra, MO 63461
Legal Description: UTM Coordinates:	SW ¹ /4, SE ¹ /4, Sec. 03, T58N, R05W, Marion County Outfall #005: X= 633459, Y= 4411978 Land Application #L01 Centroid: X = 633122, Y = 4411796
Receiving Stream:	Mississippi River (P)
First Classified Stream and ID:	Mississippi River (P) WBID #3699
USGS Basin & Sub-watershed No	D.: Bay Island-Mississippi River; 07110004-0304

authorizes activities pursuant to the terms and conditions of this permit in accordance with the Missouri Clean Water Law and/or the National Pollutant Discharge Elimination System; it does not apply to other regulated activities.

FACILITY DESCRIPTION

Non-contact cooling water from an evaporative condenser and non-industrial stormwater runoff. The waters are collected in a catch basin prior to being piped to the Mississippi River. The municipal water supply is used as non-contact cooling water. 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. Hydrostatic testing wastewater may be land applied. SIC# 5191 #005 Design Flow: 0.07 MGD

#005 Average Flow: 0.083 MGD (includes non-industrially exposed stormwater)

#L01 Design Flow: up to 2500 gallons per 1 day application (expected 1 time per year, can apply up to 4x per year)

August 1, 2024 Effective Date

July 31, 2029 Expiration Date

John Hoke, Director, Water Protection Program

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

OUTFALL #005 TABLE A-1 cooling wastewater (and incidental stormwater) FINAL EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS										
The facility is authorized to discharge fr remain in effect until expiration of the p	om outfall(s) as specifi ermit. Discharges shall	ied. The final effluer be controlled, limit	nt limitations shall be ed, and monitored by	come effective on <u>Aug</u> the facility as specifie	gust 1, 2024 and d below:					
		FINAL EFFLUE	NT LIMITATIONS	MONITORING R	REQUIREMENTS					
EFFLUENT PARAMETERS	UNITS	Daily Maximum	Monthly Average	Minimum Measurement Frequency	SAMPLE TYPE					
LIMIT SET: Q										
PHYSICAL										
Flow	MGD	*	*	once/quarter	24 hr. total					
CONVENTIONAL										
Chlorine, Total Residual [‡]	μg/L	*	*	once/quarter	grab					
Oil & Grease	mg/L	15	10	once/quarter	grab					
pH †	SU	6.0 то 9.0	-	once/quarter	grab					
NUTRIENTS										
Ammonia as N	mg/L	*	*	once/quarter	grab					
Nitrogen, Total (TN) 1	mg/L	*	*	once/quarter	grab					
MONITORING REPORTS S	HALL BE SUBMITTEI	D <u>Quarterly;</u> Th	E FIRST REPORT IS	DUE OCTOBER 28,	2024.					
LAND APPLICATION #L01 hydrostatic testing water	FINAI	LEFFLUENT LIMIT	TABLE A-2 FATIONS AND MON	NITORING REQUIREN	MENTS					
The facility is authorized to land apply h remain in effect until expiration of the p	ydrostatic test water as ermit. This wastewater	s specified. The fina is not allowed to di	l requirements shall b scharge.	become effective on A	igust 1, 2024 and					
		FINAL REQ	UIREMENTS	MONITORING R	EQUIREMENTS					
PARAMETERS	Units	Daily Maximum	Monthly Average	MINIMUM Measurement Frequency	SAMPLE TYPE					
LIMIT SET: H										
PHYSICAL										
Total Volume 🛦	gallons	2500	*	each test	24 hr. total					
Acres, Minimum	acres	2 (min)	*	each test	estimated					

Physical									
Total Volume 🛦	gallons	2500	*	each test	24 hr. total				
Acres, Minimum	acres	2 (min)	*	each test	estimated				
NUTRIENTS									
Ammonia as N	mg/L (ppm)	*	*	each test	grab				
Nitrogen, Total ♠ mg/L (ppm) 1990 * each test grab									
MONITORING REPORTS SHALL BE SUBMITTED BY THE 28 TH DAY OF THE MONTH FOLLOWING LAND APPLICATION,									
	THE REPORTS ARE UNSCHEDULED.								

* Monitoring and reporting requirement only

- [‡] Chlorine, Total Residual. This permit contains a Total Residual Chlorine (TRC) limit (or monitoring). The effluent limit is below the minimum quantification level of the most sensitive EPA approved CLTRC methods. The department has determined the current acceptable minimum level (ML) for total residual chlorine is 130 μ g/L when using the DPD Colorimetric Method #4500 – CL G. from Standard Methods for the Examination of Waters and Wastewater. The facility will conduct analyses in accordance with this method, or equivalent, and report actual analytical values. Measured and detection values greater than or equal to the minimum quantification level of 130 μ g/L will be considered violations of the permit and non-detect values less than the minimum quantification level of 130 μ g/L will be considered to be in compliance with the permit limitation. The minimum quantification level does not authorize the discharge of chlorine in excess of the effluent limits stated in the permit. The facility shall report less than "<" the value obtained on the meter for non-detections. The less than symbol shall not be used for detections. The facility shall not log the ML as the quantified value unless the quantified value is the ML. Do not chemically dechlorinate unless it is necessary to meet permit limits.
- † pH: the facility will report the minimum and maximum values; pH is not to be averaged.

- Let Total Nitrogen: this permit establishes reporting for total nitrogen, (TN), which is a calculation using TKN + Nitrate + Nitrite.
- The facility may not apply water which exceeds these limits. The hydrostatic test water must be tested prior to application. The facility expects to hydrostatically test 1x per year; the maximum volume from each test may be applied all in one day. The facility may apply up to 4x per year. See Part D Land Application Conditions.

	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 28 th						
Fourth	October, November, December	Sample at least once during any month of the quarter	January 28th						

♦ Quarterly sampling

B. STANDARD CONDITIONS

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

C. SPECIAL CONDITIONS

- 1. Spills, Overflows, and Other Unauthorized Discharges.
 - (a) Any spill, overflow, or other discharge(s) not specifically authorized are unauthorized discharges.
 - (b) If 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.
- 2. Any discharge not meeting permitted limits may be pumped and hauled to an accepting wastewater treatment facility, or otherwise properly disposed.
- 3. Electronic Discharge Monitoring Report (eDMR) Submission System. The NPDES Electronic Reporting Rule, 40 CFR Part 127, reporting of effluent monitoring data and any report required by the permit (unless specifically directed otherwise by the permit), shall be submitted via an electronic system to ensure timely, complete, accurate, and nationally consistent set of data for the NPDES program. The eDMR system is currently the only department-approved reporting method for this permit unless specified elsewhere in this permit, or a waiver is granted by the department. The facility must register in the department's eDMR system through the Missouri Gateway for Environmental Management (MoGEM) before the first report is due. All reports uploaded into the system shall be reasonably named so they are easily identifiable, such as "WET Test Chronic Outfall 002 Jan 2023", or "Outfall004-DailyData-Mar2025".
- 4. 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 or electronically and not sent to the department unless specifically requested. The SWPPP must be reviewed and updated annually or if site conditions affecting stormwater change. The facility shall select, install, use, operate, and maintain the Best Management Practices prescribed in the SWPPP in accordance with the concepts and methods described in: *Developing Your Stormwater Pollution Prevention Plan, A Guide for Industrial Operators*, (EPA 833-B-09-002 March 2021) https://www.epa.gov/sites/production/files/2021-03/documents/swppp_guide_industrial_2021_030121.pdf The purpose of the SWPPP and the Best Management Practices (BMPs) listed herein is the prevention of pollution of waters of the state. A deficiency of a BMP means it was ineffective at providing the necessary protections for which it was designed. Corrective action describes the steps the facility took to eliminate the deficiency.

The SWPPP must include:

- (a) A listing of specific contaminants and their control measures (BMPs) and a narrative explaining how BMPs are implemented to control and minimize the amount of contaminants potentially entering stormwater.
- (b) A map with all outfalls and structural BMPs marked.
- (c) If within the boundaries of a regulated Municipal Separate Storm Sewer System (MS4s), list the name of the regulated MS4.

C. SPECIAL CONDITIONS (CONTINUED)

- (d) 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, and observations and evaluations of BMP effectiveness. A BMP is considered to be disrupted if it is rendered ineffective as a result of damage or improper maintenance. Categorization of a deficiency is reliant on the length of time required to correct each disrupted BMP. Corrective action after discovering a disrupted BMP must be taken as soon as possible. Throughout coverage under this permit, the facility must perform ongoing SWPPP review and revision to incorporate any site condition changes.
 - (1) Operational deficiencies are disrupted BMPs which the facility is able to and must correct within 7 calendar days.
 - (2) Minor structural deficiencies are disrupted BMPs which the facility is able to and must correct within 14 calendar days.
 - (3) Major structural deficiencies (deficiencies projected to take longer than 14 days to correct) are disrupted BMPs which must be reported as an uploaded attachment through the eDMR system with the DMRs. The initial report shall consist of the deficiency noted, the proposed remedies, the interim or temporary remedies (including proposed timing of the placement of the interim measures), and an estimate of the timeframe needed to wholly complete the repairs or construction. If required by the department, the facility shall work with the regional office to determine the best course of action. The facility may 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 unapproved discharge and must be reported in accordance with Standard Conditions Part I.
 - (6) Inspection reports must be kept on site with the SWPPP and retained for a period of at least 5 years. These must be made available to department personnel upon request. Electronic versions of the documents and photographs are acceptable.
- (e) A provision for designating a responsible individual for environmental matters and a provision for providing training to all personnel involved in housekeeping, material handling (including but not limited to loading and unloading), storage, and staging of all operational, maintenance, storage, and cleaning areas. Proof of training shall be submitted upon request by the department.
- 5. Site-wide minimum Best Management Practices (BMPs)

At a minimum, the facility shall adhere to the following:

- (a) Provide good housekeeping practices on the site to keep trash from entry into waters of the state. Dumpsters must remain closed when not in use.
- (b) Prevent the spillage or loss of fluids, oil, grease, fuel, etc. from vehicle maintenance, equipment cleaning, warehouse activities, and other areas, to prevent the contamination of stormwater from these substances.
- (c) Provide collection facilities and arrange for proper disposal of waste products including but not limited to petroleum waste products, and solvents.
- (d) Store all paint, solvents, petroleum products, petroleum waste products, 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 shall be retained on-site or readily accessible electronically.
- (e) The facility shall not discharge substances resulting from an on-site spill.
- (f) Provide sediment and erosion control sufficient to prevent or minimize sediment loss off of the property, and to protect embankments from erosion.
- (g) Wash water for vehicles, building(s), or pavement must be handled in a no-discharge manner (infiltration, hauled off-site, etc.). Describe the no-discharge method used and include all pertinent information (quantity/frequency, soap use, effluent destination, BMPs, etc.) in the application for renewal. If wash water is not produced, note this instead.
- (h) If chlorinated, outdoor fire protection test water must be handled in a no-discharge manner (infiltration, hauled off-site, etc.) to protect receiving streams from chlorine toxicity. In the application for renewal, describe the no-discharge method used and include all pertinent information (quantity/frequency, source water, effluent destination (basin, MS4, field), and BMPs utilized). If outdoor fire protection test water is not produced or not chlorinated, note this instead in the renewal application.
- (i) The facility shall not apply salt and sand (traction control) in excess of what is required to maintain safe roadways and walkways. In the spring, after potential for additional snow or ice accumulation, if there is evidence of significant excess traction control materials, the facility shall remove excess sand or salt as soon as possible to minimize and control the discharge of salt and solids. At all times the facility shall use salt judiciously to minimize freshwater salinization.
- (j) Salt and shall be stored in a manner minimizing mobilization in stormwater (for example: under roof, in covered container, under tarp, etc.).

C. SPECIAL CONDITIONS (CONTINUED)

6. Secondary Containment

The drainage area around the secondary containment area and the interior of the containment area shall be inspected quarterly. Solids, sludge, and soluble debris shall not be allowed to accumulate in the secondary containment.

- (a) The interior of the secondary containment area shall be checked at least quarterly for signs of leaks, spills, or releases.(b) All product captured in the secondary containment area shall be expeditiously removed and the source of the product
- determined. Leaks or otherwise compromised equipment or appurtenances shall be promptly addressed/repaired. (c) Before releasing water accumulated in secondary containment areas, the water and area must be examined for odor and
- presence of product to protect the general criteria found at 10 CSR 20-7.031(4).(d) Unimpacted stormwater (i.e. free from product), must be drained from the secondary containment as soon as reasonably
- possible after a precipitation event.(e) If subparts (a) and (b) above were not followed, impacted stormwater shall not be discharged from the secondary containment and shall instead be managed in accordance with legally approved methods for disposal of process wastewater, such as being piped or transported to an accepting wastewater treatment facility.
- (f) If subparts (a) and (b) were followed, impacted stormwater can only be drained from the secondary containment after removal of product utilizing appropriate methods.
- (g) The area surrounding the secondary containment must be free of signs of vegetative stress or other indicia of product discharge.
- (h) The area below the outlet of the secondary containment area must be maintained to minimize soil washout, such as with stabilized vegetation, rip rap, or by releasing accumulated water slowly.
- (i) Records of all inspections, testing, and/or treatment of water accumulated in secondary containment shall be available on demand to the department. These records must be included in the SWPPP.
- 7. Oil/Water Separators

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

- 8. Reporting Non-Detects
 - (a) Compliance analysis conducted by the facility, or any contracted laboratory shall be conducted in such a way the precision and accuracy of the analyzed result can be enumerated. See sufficiently sensitive test method requirements in Standard Conditions Part I, §A, No. 4 regarding proper testing and detection limits used for sample analysis. For the purposes of this permit, the definitions in 40 CFR 136 apply; method detection limit (MDL) and laboratory-established reporting limit (RL) are used interchangeably in this permit. The reporting limits established by the laboratory must be below the lowest effluent limits established for the specified parameter (including any parameter's future limit after an SOC) in the permit unless the permit provides for an ML.
 - (b) The facility shall not report a sample result as "non-detect" without also reporting the MDL. Reporting "non-detect" without also including the MDL will be considered failure to report, which is a violation of this permit.
 - (c) For the daily maximum, the facility shall report the highest value; if the highest value was a non-detect, use the less than "<" symbol and the laboratory's highest method detection limit (MDL) or the highest reporting limit (RL); whichever is higher (e.g. <6).</p>
 - (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).
- 9. All active/permitted outfalls must be clearly marked in the field. This does not include the land application field (L01).
- 10. Report no discharge when a discharge does not occur during the report period. It is a violation of this permit to report nodischarge when a discharge has occurred.
- 11. This permit does not cover land disturbance activities.
- 12. 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.
- 13. This permit does not allow stream channel or wetland alterations unless approved by Clean Water Act §404 permitting authorities.

C. SPECIAL CONDITIONS (CONTINUED)

- 14. This permit does not authorize in-stream treatment, the placement of fill materials in flood plains, placement of solid materials into any waterway, the obstruction of stream flow, or changing the channel of a defined drainage course.
- 15. All records required by this permit may be retained electronically. These records should be saved in a searchable format.
- 16. Changes in Discharges of Toxic Pollutant.

In addition to the reporting requirements under 40 CFR 122.41, all existing manufacturing, commercial, mining, and silvicultural dischargers must notify the Director per 40 CFR 122.42(a)(1) and (2) as soon as recognizing:

- (a) An activity has occurred or will occur which would result in the discharge, on a routine or frequent basis, of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following notification levels:
 - (1) One hundred micrograms per liter (100 μ g/L);
 - (2) Two hundred micrograms per liter (200 μ g/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 μ g/L);
 - (2) One milligram per liter (1 mg/L) for antimony;
 - (3) Ten (10) times the maximum concentration value reported for the pollutant in the permit application in accordance with 40 CFR 122.21(g)(7).
 - (4) The level established by the Director in accordance with 40 CFR 122.44(f).
- (c) Authorization of new or expanded pollutant discharges may be required under a permit modification or renewal and may require an antidegradation review.
- 17. This permit does not authorize the facility to accept, treat, or discharge wastewater from other sources unless explicitly authorized herein. If the facility would like to accept, treat, or discharge wastewater from another activity or facility, the permit must be modified to include external wastewater pollutant sources in the permit.
- 18. The full implementation of this operating permit, which includes implementation of any applicable schedules of compliance, shall constitute compliance with Sections 301, 302, 306, 307, and 403 of the federal Clean Water Act, except for standards imposed under Section 307 for toxic pollutants injurious to human health, and with equivalent provisions of the Missouri Clean Water Law, in accordance with Section 644.051.16 RSMo and CWA §402(k). This permit may be reopened and modified, or alternatively revoked and reissued to comply with any applicable effluent standard or limitation issued or approved under CWA §§301(b)(2)(C) and (D), §304(b)(2), and §307(a)(2), if the effluent standard or limitation so issued or approved contains different conditions or is otherwise more stringent than any effluent limitation in the permit, or controls any pollutant not already limited in the permit. This permit may be modified, revoked and reissued, or terminated for cause, including determination new pollutants found in the discharge not identified in the application for the new or revised permit. The filing of a request by the facility for a permit modification, termination, notice of planned changes, or anticipated non-compliance does not stay any permit condition.
- 19. Any discharges (or qualified activities such as land application) not expressly authorized in this permit, and not clearly disclosed in the permit application, cannot become authorized or shielded from liability under CWA section 402(k) or Section 644.051.16, RSMo, by disclosure to EPA, state, or local authorities after issuance of this permit via any means, including any other permit applications, funding applications, the SWPPP, discharge monitoring reporting, or during an inspection. Submit a permit modification application, and an antidegradation determination if appropriate, to request authorization of new or expanded discharges.
- 20. Renewal Application Requirements.
 - (a) This facility shall submit an appropriate and complete application to the department no less than 180 days prior to the expiration date listed on page 1 of the permit.
 - (b) Application materials shall include complete Form A, Form C, and Form I. If the form names have changed, the facility must ensure they are submitting the correct forms as required by regulation.
 - (c) Sufficiently sensitive analytical methods must be used. A sufficiently sensitive method is one that can effectively describe the presence or absence of a pollutant at or below that pollutant's permit limit or water quality standard.
 - (d) The facility may use the electronic submission system to submit the application to the Program, if available.

D. LAND APPLICATION CONDITIONS

- 1. Surficial land application of used hydrostatic testing water is authorized and shall be conducted according to the following conditions. By following the minimum requirements enumerated here, this permit exempts stormwater runoff sampling pursuant to 10 CSR 20-6.200(2)(B)3.B. All application requirements must be followed to ensure plant use of nutrients, to eliminate plant stress, and to prevent contamination of surface and groundwater.
- Design criteria per 10 CSR 20-8.200(6)(B), and best professional judgment for industrial sites per 10 CSR 20-7.015(9)(I)1, and for best professional judgment for stormwater considerations per 10 CSR 20-6.200(6)(B)2.C, and for application fields per 10 CSR 20-6.200(2)(B)3.B: The application area (the land area that accepts liquids/wastewater) shall at a minimum comply with all of the following.
 - (a) Sensitive features minimum distances:
 - (1) At least 100 feet from all waterbody classes listed in 10 CSR 20-7.031(1)(E) 2 through 8;
 - (2) At least 150 feet from existing dwellings or public use areas (excluding roads or highways);
 - (3) At least 50 feet inside the property line; and from laydown areas, outdoor (uncovered) storage of vehicles or mechanical systems, outdoor (uncovered) storage of waste or product piles;
 - (4) At least 300 feet from any sinkhole, losing stream, and/or other structure or physiographic feature that may provide direct connection between the surface and groundwater table;
 - (5) At least 300 feet from any existing potable water supply well not located on the property. Adequate protection shall be provided for wells located on the application site;
 - (b) Limited public access; either geographically, temporally, or by physical barriers;
 - (c) Vegetated buffers should be maintained to the maximum extent possible. Removing vegetation may require additional buffer distances to sensitive features.
 - (d) For application areas collocated with grazing animals or forage crop harvesting: minimum 14 days shall elapse prior to reintroduction of grazing or from harvesting from May 1 to October 31; and minimum 30 days shall elapse prior to reintroduction of grazing or from harvesting from November 1 to April 30.
- 3. Land Application Equipment Minimum Requirements
 - (a) Spray application equipment shall minimize the formation of aerosols.
 - (b) Application equipment shall be visually inspected daily when applying to check for malfunctions and leaks.
 - (c) The application system shall be operated to provide uniform distribution of liquids.
 - (d) Equipment shall be calibrated at least once per calendar year to ensure even distribution of wastewater.
- 4. Land Application Minimum Temporal Requirements
 - (a) No land application shall occur when the soil or ground is frosted, frozen, snow covered, or saturated. Daily observation of fields when application is occurring is required. Application activities shall cease if any of these conditions occur.
 - (b) Saturated soil means soil that expresses free liquid water when pressure is applied, such as standing or driving on the land.
 - (c) There shall be no application during a precipitation event or if a precipitation event likely to create runoff is forecasted to occur within 24 hours of a planned application.
 - (d) There shall be no application less than 1 month before expected flooding conditions.
 - (e) Land application shall occur during only daylight hours.
- 5. Land Application Prohibitions
 - (a) This permit does not authorize application of materials in concentrations known to cause, or having the potential to cause, phytotoxicity in plants per 10 CSR 20-6.015(4)1. If plant stress is observed, the facility may need to reduce or eliminate the application of wastewaters. If phytotoxicity attributable to the application is observed, the facility shall cease land application activities and evaluate the applied substances to determine the cause of phytotoxicity. Phytotoxicity events must be reported to the Department by the 28th day of the month following observation. This should be via email to the regional office.
 - (b) Sites utilizing spray irrigation shall monitor for the drifting of spray across property lines. Spray drift is not permissible.
 - (c) Applied liquids runoff and ponding is prohibited. Precipitation runoff is allowed.
 - (d) Any issues which might result in harm to the environment, wildlife, public health, or water, must be fixed as soon as possible, and prior to the next precipitation event.
 - (e) This permit does not authorize land disposal or the application of hazardous waste.
- 6. Wastewater testing requirements.
 - (a) Wastewater must be tested prior to application.
 - (b) The facility must take a representative sample of the constituent to be applied.
 - (c) Mixing must occur before collecting the sample.
 - (d) Once the samples have been collected, no additional water may be added.
 - (e) See Table A-2 for numeric maximums.

D. LAND APPLICATION CONDITIONS (CONTINUED)

- (f) Prior to next permit renewal, the facility shall take one soil sample and provide the results with the application for renewal. See next.
- 7. Soil Monitoring Required for Permitted Land Application Field
 - (a) By following the minimum requirements listed in this part, the Department has concluded that discharge monitoring requirements found at 10 CSR 20-6.200(2)(B)3. B for stormwater will be excused.
 - (b) Composite soil samples shall be collected for permit renewal.
 - (c) Soil sampling shall be in accordance with University of Missouri (MU) Guides G9215, Soil Sampling Pastures or G9217, Soil Sampling Hayfields and Row Crops or other methods approved by the Department. The recommendation of one composite sample per 20 acres in G9215 and G9217 is not required by this permit, however, this is a useful method to identify soil fertility fluctuations in large fields due to past management practices, soil type, and variability of crop yields. There shall be at least one composite sample per 80 acres.
 - (d) Testing shall conform to Recommended Chemical Soil Testing Procedures for North Central Region (North Central Regional Research Publication 221 Revised), or Soil Testing in Missouri (MU Extension Guide EC923), or other methods approved by the Department.
- 8. Application Rates and Loading
 - (a) The facility must use at least 2 acres each application and spread the wastewater evenly over those 2 acres.
 - (b) The loading rate for nitrogen for this facility is approximately one tenth of one inch (0.1 in) spread evenly over the two acres. This is to protect from overapplication of nitrogen in the plant type established at this site.
 - (c) The facility must maintain a record of all fertilizer products applied to each field; including products exempted pursuant to 10 CSR 20-6.015(3)(B)8, and purchased products, to determine total nutrient loading.
 - (d) The facility must not over-apply any one nutrient or micronutrient and shall select fertilizers that meet the fertilizer needs of the plants.
- 9. Inspection, Record Keeping, and Reporting Minimum Requirements.
 - (a) All required records must be maintained for at least five years, be made available to the Department upon request, and shall be submitted with the application for renewal.
 - (b) The facility will develop a document for personnel reference, for the standard operating procedures of the following:
 - (1) Daily Operations: standard operating procedures; startup procedures; shut down procedures, and emergency procedures, including guardrails defining what operating conditions constitute an emergency.
 - (2) Inspections: a procedure for daily recordkeeping requirements; may need to include definitions, and methods to properly measure items required for inspections.
 - (3) Quality control requirements: including determining if the equipment used is within acceptable operating conditions.
 - (c) Daily land application log showing, at a minimum: date(s) of application, field identified, acres used, volume applied, weather condition (sunny, overcast, air temperature, etc), soil moisture condition, days since last precipitation event, and application method; submitted as an annual summary that shows number of days application occurred, crop grown and yield, and total amount of wastewater applied (gallons per acre).
 - (d) Monthly visual storage structure inspections (if applicable); submitted as an annual summary.
 - (e) Equipment inspections and calibrations; submitted as an annual summary.
 - (f) Land application field inspections, including runoff;
 - (g) Record of maintenance and repairs;
 - (h) Description of any unusual operating conditions encountered, narrative summary of any problems or deficiencies identified, corrective action taken, or improvements planned;
 - (i) The number of days the storage structure discharged during the year, the discharge flow, reason the discharge occurred, and effluent analysis performed including analytical result laboratory pages and any clean-up actions taken.
 - (j) Sample records must submitted to the Department with the application for renewal materials. The samples required shall contain all parameters listed in the table in part A of the permit and any other information collected about the applied materials. The submission must include the date of sampling and have the type and location identified. Submission of laboratory results sheets will meet this requirement.
 - (k) To ensure the soil does not exceed the cumulative loading rate, all records shall be maintained from the initial application date and for at least five years after application activities have ceased.
 - (1) Permit renewal documents must include a complete description of the methods and operations of the land application system. Data supplied must include a sample for all constituents believed or possibly present anywhere in the facility's process and/or land application system. This must include flocculants, adjuvants, cleaning materials, and any other introduced or breakdown product or constituent that may be present in the system.

E. NOTICE OF RIGHT TO APPEAL

If you were adversely affected by this decision, you may be entitled to pursue an appeal before the administrative hearing commission (AHC) pursuant to 621.250 and 644.051.6 RSMo. To appeal, you must file a petition with the AHC within thirty days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed; if it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the AHC. Any appeal shall 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 FACT SHEET FOR THE PURPOSE OF RENEWAL OF MO-0001821 CF INDUSTRIES SALES, LLC – PALMYRA TERMINAL

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

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

PART I. FACILITY INFORMATION

Facility Type:	Industrial: Minor
SIC Code(s):	5191
NAICS Code(s):	424910

FACILITY DESCRIPTION

This facility conducts storage and distribution of anhydrous ammonia (agricultural fertilizer). Ammonia is received by barge along the Mississippi River. The ammonia is pumped into an aboveground storage tank and distributed to customers via truck. Terminal operations are supported by an evaporative condenser, which discharges non-contact cooling water to the Mississippi River. Stormwater is not required to be covered in this permit.

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

PERMITTED FEATURES TABLE

OUTFALL	FALL AVERAGE FLOW DESIGN FLOW		TREATMENT LEVEL	Effluent type		
#005	0.06 MGD	0.07 MGD	storage basin and BMP	non-contact cooling water and stormwater		
#L01	2200 gallons	2500 gallons	land application	hydrostatic testing water from ammonia tanks		

OUTFALL #001 & #002 - Eliminated in 2013; replaced with Outfall #005

<u>OUTFALL #003</u> – Eliminated in 2012; discharge of well water not used in processes or in contact with activities. This is not regulated water.

<u>OUTFALL #004</u> – Eliminated in 2013; this is the location of an on-site septic system for treatment of domestic wastewater of less than 3,000 gallons per day. This is not regulated by the department.

FACILITY PERFORMANCE HISTORY & COMMENTS

The electronic discharge monitoring reports were reviewed for the last five years; there were no exceedances. No inspection was found.

CONTINUING AUTHORITY

Pursuant to 10 CSR 20-6.010(2)(A) and (E), the department has received the appropriate continuing authority authorized signature from the facility. The Missouri Secretary of State continuing authority charter number for this facility is FL001427299; this number was verified to be associated with the facility and precisely matches the continuing authority reported by the facility.

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

Pursuant to 10 CSR 20-6.010(2)(D), the facility is greater than 2000 feet from the property line from the nearest collection system per 10 CSR 20-6.010(2)(C)3.

OTHER ENVIRONMENTAL PERMITS

In accordance with 40 CFR 122.21(f)(6), the department evaluated other environmental permits currently held by this facility. This facility has a USACE dredging permit, CEMVR-OD-P-2020-1260

PART II. RECEIVING WATERBODY INFORMATION

RECEIVING WATERBODY TABLE:

OUTFALL	WATERBODY NAME	CLASS	WBID	DESIGNATED USES	DISTANCE TO SEGMENT	12-digit HUC
#005	Mississippi River	Р	3699	DWS, GEN, HHP, IND, IRR, LWW, SCR, WBC-A, WWH (AQL)	0.0	07110004-0304

Classes are representations of hydrologic flow volume or lake basin size per 10 CSR 20-7.031(1)(E).

Designated uses are described in 10 CSR 20-7.031(1)(F).

WBID: Waterbody Identification Number per 10 CSR 20-7.031(1)(Q) and (S)

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

 $Water \ Quality \ Standards \ Search \ \underline{https://apps5.mo.gov/mocwis_public/waterQuality \ Standards \ Search. \ do$

EXISTING WATER QUALITY & IMPAIRMENTS

The receiving waterbody(s) segment(s), upstream, and downstream confluence water quality was reviewed. The USGS <u>https://waterdata.usgs.gov/nwis/sw</u> or the department's quality data database was reviewed.

https://apps5.mo.gov/mocwis_public/wqa/waterbodySearch.do and https://apps5.mo.gov/wqa/ Impaired waterbodies which may be impacted by discharges from this facility were determined. Impairments include waterbodies on the 305(b) or 303(d) list and those waterbodies or watersheds under a TMDL. https://dnr.mo.gov/water/what-were-doing/water-planning/quality-standards-impaired-waters-total-maximum-daily-loads/tmdls Section 303(d) of the federal Clean Water Act requires each state identify waters not meeting water quality standards and for which adequate water pollution controls have not been required. https://dnr.mo.gov/water/what-were-doing/water-planning/quality-standards-impaired-waters-total-maximum-daily-loads/impaired-waters Water quality standards protect beneficial uses of water provided in 10 CSR 20-7.031. The 303(d) list helps state and federal agencies keep track of impaired waters not addressed by normal water pollution control programs. A TMDL is a calculation of the maximum amount of a given pollutant a water body can absorb before its water quality is affected; hence, the purpose of a TMDL is to determine the pollutant loading a specific waterbody can assimilate without exceeding water quality standards.

✓ Applicable; Mississippi River is associated with the 2006 EPA approved TMDL for chlordane and polychlorinated biphenyls (PCBs). This facility is not considered to be a source of the above listed pollutant(s) or considered to contribute to the impairment.

WATERBODY MIXING CONSIDERATIONS

For outfall #005, mixing is afforded, see low flow values calculated for the receiving stream below. For information how this regulation is used in determining effluent limits with or without mixing, see WASTELOAD ALLOCATION in Part III. If the base stream flow is above 0.1 cfs, mixing may be applied if 1) zones of passage are present, 2) mixing velocities are sufficient and stream bank configuration allows, 3) the aquatic life support system is maintained, 4) mixing zones do not overlap, 5) there are no drinking water intakes in the vicinity downstream, 6) the stream or lake has available pollutant loading to be allocated, and 7) downstream uses are protected.

	Zone of Ini	tial Dilutio	n (CFS)	Mixing Zone (CFS)					
Receiving stream	Low-Flo	ow Values (C	FS)	[10 CSR 20- 7.031(5)(A)4.B.(II)(b)]			[10 CSR 20- 7.031(5)(A)4.B.(II)(a)]		
	1Q10	7Q10	Lone of initial Dilation (ers) Initial Dilation (ers) ues (CFS) [10 CSR 20- 7.031(5)(A)4.B.(II)(b)] [10 CSR 20- 7.031(5)(A)4.B.(II)(a)] 210 30Q10 1Q10 7Q10 30Q10 1Q10 7Q10 30Q10 114 38,687 1.1 1.1 1.1 9050 9278.5 9671.8	30Q10					
Mississippi River at Grafton Il; Gaging Station #5587450	36,200	37,114	38,687	1.1	1.1	1.1	9050	9278.5	9671.8

PART III. RATIONALE AND DERIVATION OF PERMIT CONDITIONS

ANTIBACKSLIDING

Federal antibacksliding requirements per CWA §402(o) and 40 CFR § 122.44(l) <u>https://www.ecfr.gov/current/title-40/chapter-</u><u>I/subchapter-D/part-122#p-122.44(l)</u> generally prohibit a reissued permit from containing effluent limitations that are less stringent than the previous permit, with some exceptions. All renewed permits are analyzed for evidence of backsliding. There are several express statutory exceptions to the antibacksliding requirements, located in CWA § 402(o)(2) and 40 CFR 122.44(l). Parameters are discussed individually in Part IV of the fact sheet.

ANTIDEGRADATION REVIEW

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. See <u>https://dnr.mo.gov/document-search/antidegradation-implementation-procedure</u>

- ✓ Not applicable; the facility has not submitted information proposing new or expanded discharge; no further degradation proposed therefore no further review necessary.
 - The 2013 antidegradation review determined:
 - Ammonia as N: no RP
 - o Iron: no RP
 - Temperature: no RP

Therefore, no additional requirements are needed for these parameters.

BEST MANAGEMENT PRACTICES (BMPS)

Minimum site-wide best management practices (BMPs) 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) or 10 CSR 20-6.200(2), these best management practices are not specifically included only 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 per 10 CSR 20-7.031(4). Statutes are applicable to all permitted facilities in the state; therefore, pollutants cannot be released unless in accordance with 644.011 and 644.016 (17) RSMo.

CHLORINE/BROMINE BEST PROFESSIONAL JUDGMENT LIMITATIONS

The facility has stated they utilize both chlorine and bromine for cooling tower disinfection. Both contaminants behave nearly identically in the freshwater environment causing rapid chemical oxidation reactions with available molecules. These halogens are found in the same category of the periodic table, are highly reactive, and neither is found elementally in nature. When determining free available chlorine, the analytical method is the same for both parameters, although no approved method for bromine is found in 40 CFR 136. Detection for chlorine has interferences of other strongly oxidizing molecules and specifically lists bromine presence as interference if only chlorine is to be measured. All field tests measure chlorine, bromine, and any other oxidizing agents present such as iodate, chlorine dioxide, ozone, permanganate, hydrogen peroxide, and disinfection byproducts such as chlorite and chlorate without specificity and provide the summation of these parameters in the colorimetric result. Effluent limitation guidelines and Missouri Water Quality Standards do not include bromine; however, given the inherent similarity, the permit writer has determined bromine and chlorine limitations from the effluent limitation guideline at 40 CFR 423 for freely available chlorine, and Missouri Water Quality Standards for total recoverable chlorine to be the best course forward at this time to provide coverage for bromine under technology-based limitations and analysis and calculations for water quality-based limitations. Part IV provides the determination of the limits. This best professional judgment determination is supported by 40 CFR 423.11(a).

CLOSURE

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

CHANGES IN DISCHARGES OF TOXIC POLLUTANT

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

COMPLIANCE AND ENFORCEMENT

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

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

DISCHARGE MONITORING REPORTING - ELECTRONIC (EDMR) SUBMISSION SYSTEM

The U.S. Environmental Protection Agency (EPA) promulgated a final rule on October 22, 2015, to modernize Clean Water Act reporting for municipalities, industries, and other facilities by requiring electronic data reporting. To comply with the federal rule, the department is requiring all facilities to submit discharge monitoring data and reports online. To review historical data, the department's database has a publicly facing search engine, available at https://apps5.mo.gov/mocwis_public/dmrDisclaimer.do

Registration and other information regarding MoGEM can be found at https://dnr.mo.gov/mogem. Information about the eDMR system can be found at https://dnr.mo.gov/env/wpp/edmr.htm.The first user shall register as an Organization Official and the association to the facility must be approved by the department. To access the eDMR system, use:

<u>https://apps5.mo.gov/mogems/welcome.action</u> For assistance using the eDMR system, contact <u>edmr@dnr.mo.gov</u> or call 855-789-3889 or 573-526-2082. To assist the facility in entering data into the eDMR system, the permit describes limit sets designators in each table in Part A of the permit. Facility personnel will use these identifiers to ensure data entry is being completed appropriately. For example, M for monthly, Q for quarterly, A for annual, and others as identified.

DOMESTIC WASTEWATER, SLUDGE, AND BIOSOLIDS

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

✓ 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.

✓ Not applicable, the facility holds all domestic sludge in a tank until a third party removes it.

EFFLUENT LIMITATIONS

Two general types of effluent limitations, technology-based effluent limits (TBELs) and water quality based effluent limits (WQBELs) are reviewed. Permits are required to establish the most stringent or most protective limit per 10 CSR 20-7.015(9)(A) and 40 CFR 122.44(b)(1). The department has regulatory authorization to implement limits based on best professional judgment per 10 CSR 20-7.015(9)(I)1. Effluent limitations derived and established for this permit are based on current operations of the facility. Any flow through the outfall is considered a discharge and must be sampled and reported per permit requirements. Daily maximums and monthly averages are required for continuous discharges per 40 CFR 122.45(d)(1). Weekly limits are not available for non-POTWs.

EMERGENCY DISCHARGE

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

✓ Not applicable; this permit does not contain conditions allowing emergency discharges.

FEDERAL EFFLUENT LIMITATION GUIDELINES

Effluent Limitation Guidelines (ELGs) are found at 40 CFR 400-499. https://www.ecfr.gov/current/title-40/chapter-I/subchapter-N These are limitations established by the EPA based on the type of activities a facility is conducting. Most ELGs are for process wastewater and some address stormwater. Effluent guidelines are not always established for every pollutant present in a point source discharge. In many instances, EPA promulgates effluent guidelines for an indicator pollutant. Industrial facilities complying with the effluent guidelines for the indicator pollutant will also control other pollutants (e.g. pollutants with a similar chemical structure). For example, EPA may choose to regulate only one of several metals present in the effluent from an industrial category, and compliance with the effluent guidelines will ensure similar metals present in the discharge are adequately controlled. All are technology-based limitations which must be met by the applicable facility at all times. If Reasonable Potential is established for any particular parameter, and water-quality based effluent limits are more protective of the receiving water's quality, the WQBEL will be used as the limiting factor in accordance with 40 CFR 122.44(d) and 10 CSR 20-7.015(9)(A).

 \checkmark The facility does not have an associated ELG.

FEES

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

FIRE PROTECTION (HYDRANT) TESTING WATER (OUTDOOR)

The regulatory discharge allowance only extends to actual fire-fighting activities. These regulations are only found in 10 CSR 20-6.200(1)(D). Hydrant testing wastewater can be considered a water contaminant source pursuant to 644.016(25), dependent on the management strategies, which is why the department asks for additional information about these wastewaters. The Federal and State requirements necessitate a reasonable potential determination for all wastewater; hydrant testing is a type of wastewater with intermittent discharge, and is not considered an emergency. Information regarding fire protection is included under illicit discharges for MS4s, and no other regulation allows for any further exemptions, unless the department makes a finding of de minimis. Missouri Clean Water Law requires the department to perform due diligence for all wastewater discharges and all permits (general and site specific). Permit conditions now have specific requirements to manage outdoor hydrant testing logically; and relevant to the pollutants contained in the fire protection testing wastewater. If the facility follows the appropriate management strategy, the permit will cover the discharges. If the facility does not use chlorinated water in the fire protection system, then the facility may allow the wastewater to directly enter a stream or storm collection system, given that sufficient energy dissipation strategies are followed to ensure that solids from soils or other sources are not being entrained in the wastewater. For facilities with chlorinated fire protection testing water, the facility must utilize a strategy to ensure chlorinated water is not being introduced into the waterbody. This could be by allowing the water to soak into the surrounding vegetation, or by retaining the water through a permanent or temporary berm for sufficient time to infiltrate, or other appropriate BMP. Other management strategies exist, and it is the responsibility of the facility to operate all systems to minimize pollution to waters of the state and United States.

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, permit decisions were made by completing 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). See Part III REASONABLE POTENTIAL for more information. In instances where reasonable potential exists, the permit includes limitations to address the reasonable potential. In discharges where reasonable potential does not exist, the permit may include monitoring to later determine the discharge's potential to impact the narrative criteria. Additionally, 644.076.1 RSMo, and Part I §D – Administrative Requirements of Standard Conditions included in this permit state it shall be unlawful for any person to cause or allow any discharge of water contaminants from any water contaminant or point source located in Missouri in violation of §§644.006 to 644.141 of the Missouri Clean Water Law or any standard, rule, or regulation promulgated by the commission. See Part IV for specific determinations.

GOOD HOUSEKEEPING PRACTICES

Good housekeeping is a practical, cost-effective way to maintain a clean and orderly facility to prevent potential pollution sources from coming into contact with stormwater. It includes establishing protocols to reduce the possibility of mishandling materials or equipment and employee training. Common areas where good housekeeping practices should be followed include trash containers and adjacent areas, material storage areas, vehicle and equipment maintenance areas, and loading docks. Good housekeeping practices must include a schedule for regular pickup and disposal of garbage and waste materials and routine inspections of drums, tanks, and containers for leaks and structural conditions. Practices also include containing and covering garbage, waste materials, and debris. Involving employees in routine monitoring of housekeeping practices is an effective means of ensuring the continued implementation of these measures.

Specific good housekeeping may include:

- Spill and overflow protection under chemical or fuel connectors to contain spillage at liquid storage tanks
- Load covers on residue hauling vehicles and ensure gates on trucks are sealed and the truck body is in good condition
- Containment curbs around loading/unloading areas or tanks

- Techniques to reduce solids residue which may be tracked on to access roads traveled by residue trucks or residue handling vehicles.
- Techniques to reduce solid residue on exit roads leading into and out of residue handling areas

Where feasible, minimizing exposure of potential pollutant sources to precipitation is an important control option. Minimizing exposure prevents pollutants, including debris, from coming into contact with precipitation and can reduce the need for BMPs to treat contaminated stormwater runoff. It can also prevent debris from being picked up by stormwater and carried into drains and surface waters. Examples of BMPs for exposure minimization include covering materials or activities with temporary structures (e.g., tarps) when wet weather is expected or moving materials or activities to existing or new permanent structures (e.g., buildings, silos, sheds). Even the simple practice of keeping a dumpster lid closed can be a very effective pollution prevention measure. For erosion and sediment control, BMPs must be selected and implemented to limit erosion on areas of your site that, due to topography, activities, soils, cover, materials, or other factors, are likely to experience erosion. Erosion control BMPs such as seeding, mulching, and sodding prevent soil from becoming dislodged and should be considered first. Sediment control BMPs such as silt fences, sediment ponds, and stabilized entrances trap sediment after it has eroded. Sediment control BMPs should be used to back-up erosion control BMPs.

The SWPPP (if required for this facility) must contain a narrative evaluation of the appropriateness of stormwater management practices that divert, infiltrate, reuse, or otherwise manage stormwater runoff so as to reduce the discharge of pollutants. Appropriate measures are highly site-specific, but may include, among others, vegetative swales, collection and reuse of stormwater, inlet controls, snow management, infiltration devices, and wet retention measures. A combination of preventive and treatment BMPs will yield the most effective stormwater management for minimizing the offsite discharge of pollutants via stormwater runoff. BMPs schedules must also address preventive maintenance records or logbooks, regular facility inspections, spill prevention and response, and employee training.

GROUNDWATER MONITORING

Groundwater is a water of the state according to 644.016(27) RSMo, is subject to regulations at 10 CSR 20-7.015(7) and 10 CSR 20-7.031(6) and must be protected accordingly.

✓ This facility is not required to monitor groundwater for the water protection program as there are no sub-surface discharges.

HYDROSTATIC TESTING WASTEWATER

This facility is required to test pipelines and hoses annually per 33 CFR 154 and 156. The facility drains the pipes of ammonia and fills the pipes with potable water to conduct the tests. The tests utilize approximately 2200 gallons of water. The ammonia value of the water was 1588.66 mg/L in 2023. The facility has asked that this water be available to land apply. See LAND APPLICATION section below.

ICE-MELT PRODUCT REMOVAL

The department is authorized to require BMPs for facilities per 40 CFR 122.44(k)(2). The facility must apply traction control materials judiciously. The facility should, to the extent practicable, remove large pieces of salt as soon as possible. After winter weather has ceased for the year, the facility should inspect all low-lying areas for extra salt and sand and remove these as soon as possible. Salt applied to large areas has the potential to cause freshwater salinization which could result in a fish kill of sensitive species. To reduce potential for solids entering a stream, sand or other traction control materials will need to be evaluated against the probability that these materials could cause general criteria violations of solids and bottom deposits per 10 CSR 20-7.031(4).

LAND APPLICATION

Land application, which is surficial dispersion of wastewater or surficial spreading of sludge or solids can be performed by facilities as an alternative to discharging. Authority to regulate these activities is pursuant to 644.026 RSMo. The Department implements requirements for these types of operations pursuant to 10 CSR 20-6.015(4)(A)1 which instructs the Department to develop permit conditions containing limitations, monitoring, reporting, and other requirements to protect soils, crops, surface waters, groundwater, public health, and the environment. Sub-surface dispersion of wastewater is typically considered a Class V UIC system; See UNDERGROUND INJECTION CONTROL section below. Setbacks from sensitive features are found in 10 CSR 20-8.200(6)

- ✓ Applicable, the facility shall comply with all applicable land application requirements listed in this permit. This facility has authorization to land apply hydrostatic testing wastewater to the facility property.
- ✓ Permitted Feature #L01 is the land application field. See image below.
- ✓ The facility will use a pull-behind tank system with calibrated nozzles/valves.
- The facility indicated that they use about 2200 gallons per hydrostatic test. The permit limits the application to 2500 gallons per calendar year which is per one test.
- ✓ The facility supplied 2023 sampling results: ammonia = 1588.16 mg/L; and nitrate = 4.27 mg/L To determine TN, ammonia was added to nitrate, and a margin of safety was calculated.

The maximum application rate is based on <u>https://extension.missouri.edu/publications/mg10</u> for the current established vegetation which is turfgrass or other cool and warm season grasses. Nitrogen fertilizer requirements are approximately 0.5 lb/sqft up to 4x/year. The lowest values were used as a margin of safety.

Nillogen Recommendation		
N max application		N max application
0.5	43560	21.78
lb/ 1000 sqft 4x/yr	converter	lb/ac up to 4x/year

- ✓ These requirements incorporated into this permit under Part D, pursuant to 10 CSR 20-6.015(4) ensure appropriate minimum operational controls of the no-discharge land application systems. When correctly operated these permit conditions will prevent unauthorized and unapproved discharges to waters of the state; and will protect soils, vegetation, surface water, groundwater, public health, aquatic organisms, and wildlife. These requirements also ensure application activities fall within a productive use demonstration (agricultural use), prevent plant phytotoxicity, and prevent and protect soils loading of specified pollutants.
- ✓ The minimum requirements established in the permit are to meet, not only DNRs requirements, but to also ensure the exemptions for agricultural stormwater runoff in 10 CSR 20-6.200(1)(B)5 continue to be met. When the facility follows all permit requirements, stormwater discharge monitoring requirements from land application sites found at 10 CSR 20-6.200(2)(B)3.B. are excused. The BMPs prescribed in the permit, such as not applying to saturated or frozen soil, or applying outside the setbacks, are specific BMPs appropriate for wastewater and stormwater management from land application areas; see LAND APPLICATION CONDITIONS in the permit, specifically items #1 and #2. Most of these requirements are found in regulations; and some of the requirements are best professional judgement which is allowed per 10 CSR 20-7.015(9)(I)1. All items enumerated in the permit are conditions applicable to this facility.

The calculations are provided here; MOS is Margin of Safety; BPJ is Best Professional Judgment.

Gallons	to	Liters	NH3+NO3	to	TN	Vol * Conc	mg to lbs	1 hydrostatic test	site application area	TN
2500	3.785	9462.5	1592.43	1.25	1990.5375	18835461.09	453600	41.52438513	2	20.762193
gal	converter	L	mg/L	converter MOS & BPJ	mg/L	L * mg/L = mg	converter	lbs TN	acres	lbs/ac

- ✓ Land application of all pollutants must consider cumulative and average limits based on how the pollutant responds in the soil environment. Limits or monitoring requirements may reflect different monthly calculations based on pollutant behavior. The facility must follow the applicable application loading rates indicated in the permit's FACILITY DESCRIPTION and SPECIAL CONDITIONS. The facility must follow the applicable loading rates in the permit's facility description for each land application area. This permit dictates the most conservative calculation will be used when determining application rates so that the most abundant pollutant is not over-applied. unless irrigation is available, yields will be limited by available moisture in the growing season. Hydraulic Loading Rates for low nutrient wastewater for watering purposes must be land applied at rates to allow for proper soil absorption and plant uptake. In accordance with 10 CSR 20-8.200(6)(B), the hydraulic loading rate shall not exceed the soil permeability rate and cannot result in a discharge of wastewater from the land application field. By adhering to the conditions in this permit, the Department can determine reasonable potential to cause or contribute to plant toxicity required under 10 CSR 20-6.015(4). Definitions used in the land application section of the permit can be found at 644.016 RSMo, 10 CSR 20-2, and 40 CFR 503.11.
- ✓ Operations and Maintenance, and equipment resources:
 - Collection and Storage https://extension2.missouri.edu/eq431
 - Equipment for Off-Site Application https://extension2.missouri.edu/wq432
 - Equipment for On-Site Land Application https://extension2.missouri.edu/wq433
 - Operating Considerations for Equipment <u>https://extension2.missouri.edu/wq434</u>
- Requirements for vegetation within this permit aim to reduce nutrient loss (<u>https://dnr.mo.gov/water/what-were-doing/water-planning/nutrient-loss-reduction-strategy</u>) and reduce loss of topsoil from erosion.
- Permit renewal documents must include a complete description of the methods and operations of the land application system.
 While this facility is within a flood prone area, there are no "structures, electrical equipment, and mechanical equipment" that
- While this facility is while a flood profile area, there are no structures, electrical equipment, and mechanical equipment that requires protection from physical damage per 10 CSR 20-8.140(2)(B), therefore, application is allowed when the facility is not under flood conditions, or flooding is expected to happen. See special conditions.

 \checkmark The facility has approximately 4.2 acres to apply the water (this estimate accounts for setbacks).



LAND DISTURBANCE

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

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

MODIFICATION REQUESTS

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

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

MUNICIPAL SEPARATE STORM SEWER SYSTEMS (MS4)

This permit allows discharge to waters of the state. The discharges this permit allows may flow into and through a city's stormwater collection system. Per 40 CFR 122.26(a)(4), any facility discharging stormwater associated with industrial activity to an MS4 shall submit no later than 180 days prior to commencing such discharge, to the MS4 receiving the discharge: the name of the facility; a contact person and phone number; the location of the discharge; a description, including Standard Industrial Classification, which best reflects the principal products or services provided by each facility; and any/all existing NPDES permit number(s). Regulated MS4s are managed by public entities, cities, municipalities, or counties. Phase I MS4s are Kansas City, Independence, and Springfield.

Phase II MS4s are determined by population or location in an urbanized area. Regulated MS4s are required to develop and maintain a stormwater management program. These programs have requirements for developing and implementing a plan to detect and eliminate unapproved discharges to the storm sewer system. Phase I MS4s also maintain oversight programs for industrial and high-risk runoff. Regulated MS4s may keep a list of all of the other regulated dischargers (wastewater and stormwater) flowing through their system. Regulated MS4 operators may request to inspect facilities discharging into their system; a list of regulated MS4s can be viewed at https://dnr.mo.gov/document-search/missouris-regulated-municipal-separate-storm-sewer-systems-ms4s or at https://apps5.mo.gov/mocwis-public/permitSearch.do to determine if this facility needs to contact a local stormwater authority.

OIL/WATER SEPARATOR SYSTEMS AND USED OIL

Oil water separator (OWS) systems are frequently found at industrial sites where process water, wastewater, or stormwater may contain oils, petroleum, greases, oily wastewaters, or other immiscible liquids requiring separation. Food industry discharges typically require treatment prior to discharge to publicly owned treatment works. Per 10 CSR 26-2.010(2)(B), all oil water separators classified as underground storage tanks (UST) which meet the volume requirements, must be operated according to manufacturer's specifications. OWS which are USTs may be authorized in NPDES permits per 10 CSR 26-2.010(2)(B) or otherwise will be regulated as a underground petroleum storage tank under tank rules. A facility may operate an OWS which is not considered a UST for the wastewater or stormwater at any facility without specific NPDES permit authorization. Alternatively, a facility is not required to cover a UST OWS under the NPDES permit if they desire to obtain alternative regulatory compliance. OWS treating animal, vegetable, or food grade oils are not required to be authorized under 10 CSR 20-26-2.020(2)(B). All best management practices for all OWS systems must be adhered. In 2017, field-poured concrete tanks, previously exempted from the tanks rules, lost their exempt status. Facilities must re-evaluate these concrete structures pursuant to these now relevant rules. Adjacent USTs are not covered by these regulations.

Any and all water treatment systems designed to remove floating immiscible oils are termed oil water separators. If a device is intended to capture oil and separate it from water which is to be discharged, this generally qualifies that oil as used oil (if it is petroleum-based in nature). Used oil and oily sludge must be disposed of in accordance with 10 CSR 25-11.279. Pursuant to 40 CFR 279.20(b)(2)(ii)(B), separating used petroleum-based oil from wastewater generated on-site (to make the wastewater acceptable for discharge or reuse pursuant to Federal or state regulations governing the management or discharge of wastewaters) are considered used oil generators and not processors under self-implementing 40 CFR 279 Standards for The Management Of Used Oil. Oily wastes generated by OWS are also generally subject to Spill Prevention, Control, and Countermeasure (SPCC) regulations.

OPERATOR CERTIFICATION REQUIREMENTS

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

✓ Not applicable; this facility is not owned or operated by a municipality, public sewer district, county, public water supply district, or private sewer company regulated by the Public Service Commission or operated by a state or federal agency.

PERMIT SHIELD

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

REASONABLE POTENTIAL (RP)

Regulations per 10 CSR 20-7.015(9)(A)2 and 40 CFR 122.44(d)(1)(i) require effluent limitations for all pollutants which are (or may be) discharged at a level causing or have the reasonable potential to cause (or contribute to) an in-stream excursion above narrative or numeric water quality standards. Per 10 CSR 20-7.031(4), general criteria shall be applicable to all waters of the state at all times; however, acute toxicity criteria may be exceeded by permit allowance in zones of initial dilution, and chronic toxicity criteria may be exceeded by permit allowance in zones of initial dilution, and chronic toxicity criteria may be exceeded by permit allowance in zones of initial dilution. The state at all times; effluent data provided by the facility for parameters that have a numeric Water Quality Standard (WQS). If any given pollutant has the reasonable potential to cause or contribute to an in-stream excursion above the WQS or derived WQBEL, the permit must contain a WQBEL 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). The RPA is performed using the *Technical Support Document for Water Quality Based Toxics Control (TSD)* methods (EPA/505/2-90-001) for continuous discharges. See additional considerations under Part II WATERBODY MIXING CONSIDERATIONS and Part III WASTELOAD

ALLOCATIONS. Wasteload allocations are determined utilizing the same equations and statistical methodology. Absent sufficient effluent data, WQBELs are derived without consideration of effluent variability and is assumed to be present unless found to be absent to meet the requirements of antidegradation review found in 10 CSR 20-7.031(3) and reporting of toxic substances pursuant to 40 CFR 122.44(f). The department's permit writer's manual (<u>https://dnr.mo.gov/water/business-industry-other-entities/technical-assistance-guidance/wastewater-permit-writers-manual</u>), the EPA's permit writer's manual (<u>https://www.epa.gov/npdes/npdes-permit-writers-manual</u>), program policies, and best professional judgment guide each decision. Each parameter in each outfall is carefully considered; and all applicable information regarding technology based effluent limitations, effluent limitation guidelines, water quality standards, inspection reports, stream water quality information, stream flows, uses assigned to each waterbody, and all applicable site specific information and data gathered by the facility through discharge monitoring reports and renewal (or new) application sampling.

Reasonable potential determinations (RPD) are based on physical conditions of the site as provided in Sections 3.1.2, 3.1.3, and 3.2 of the TSD using best professional judgement. An RPD consists of evaluating visual observations for compliance with narrative criteria, non-numeric information, or small amounts of numerical data (such as 1 data point supplied in the application). Narrative criteria with RP typically translate to a numeric WQBEL, so a parameter's establishment being based on narrative criteria does not necessarily make the decision an RPD vs RP—how the data is collected does, however. For example, a facility with orange discharge can have RP for narrative criteria like color, but a numeric iron limit is established to account for the violation of narrative criteria based on effluent data submitted by the facility. When insufficient data is received to make a determination on RP based on numeric effluent data, the RPD decisions are based on best professional judgment considering the type of effluent discharged, the current operational controls in place, and historical overall management of the site. In the case of iron causing excursions of narrative criteria for color, if a facility has not had iron monitoring in a previous permit, adding iron monitoring would be an RPD, since numeric data isn't being used in the determination, but observable, site-specific conditions are.

When the facility is performing surficial or subsurface land application, the volume of water, frequency of application, type of vegetation, soil type, land slopes, and general overall operating conditions are considered. 10 CSR 20-8 are regulations for the minimum operating conditions for land application; these regulations cannot be excused even if there is no RP. RP is reserved for discharging outfalls given that these outfalls are the only ones which water quality standards apply to, but the process is similar as the site conditions are compared to regulations, pollutant profile, and other site-specific conditions. In the case of non-discharging outfalls, an RPD is instead used to determine monitoring requirements.

The TSD RPA method cannot be performed on stormwater as the flow is intermittent and highly variable. A stormwater RPD consists of reviewing application data and discharge monitoring data and comparing those data to narrative or numeric water quality criteria. For stormwater outfalls, considerations are required per 10 CSR 20-6.200(6)(B)2: A. application and other information supplied by the facility; B. effluent guidelines; C. best professional judgment; D. water quality; and E. BMPs.

RPDs are also performed for WET testing in wastewater. While no WET regulations specific to industrial wastewater exist, 40 CFR 122.21(j)(5) implies the following can be considered: 1) the variability of the pollutants; 2) the ratio of wastewater flow to receiving stream flow; and 3) current technology employed to remove toxic pollutants. Generally, sufficient data does not exist to mathematically determine RPA for WET, but instead compares the data for other toxic parameters in the wastewater with the necessity to implement WET testing with either monitoring or limits. When toxic parameters exhibit RP, WET testing is generally included in the permit as an RPD. However, if all toxic parameters are controlled via limitations or have exhibited no toxicity in the past, then WET testing may be waived. Only in instances where the wastewater is well characterized can WET testing be waived.

WET testing is typically not implemented for stormwater. Stormwater discharges do not adhere to the same principles of wastewater RPAs because stormwater discharges are not continuous, and at the time of precipitation discharge the receiving stream is also no longer at base (0) flow, meaning that using RP to develop WET testing requirements for stormwater is unrepresentative. The department works with the Missouri department of Conservation and has understanding of streams already exhibiting toxicity, even without the influence of industrial wastewater or stormwater. Facilities discharging to streams with historical toxicity are required to use laboratory water for dilution, instead of water from the receiving stream when performing WET tests.

TSD methods encountered may be § 3.3.2, § 5.7.3 for metals, and § 5.4.1 for chloride. Part IV EFFLUENT LIMIT DETERMINATIONS provides specific decisions related to this permit. In general, removal of a WQBEL if there is no RP is not considered backsliding, see ANTIBACKSLIDING for additional information.

- ✓ In a meeting on February 17, 2023, the EPA verbally agreed that removal of limits for a parameter with no RP is not considered backsliding.
- ✓ The previous permit indicated "There Shall Be No Discharge of Floating Solids or Visible Foam in Other Than Trace Amounts" under each table. The statement was not evaluated against actual site conditions therefore, this general criterion was re-assessed. It was determined that this facility does not discharge solids or foam in amounts which would indicate reasonable potential, therefore the statement was removed. Removal of these narrative criteria is not subject to antibacksliding provisions as there is no RP.
- ✓ The previous permit required sampling for COD; however, there are no numeric WQS for COD; nor are there any established TBEL or necessary TBEL for COD. The facility reported between 6 and 50 mg/L during the last permit term. This permit

continues to monitor for pollutants which may increase oxygen demand, such as total residual chlorine; therefore, COD monitoring of the non-contact cooling water is not required.

- ✓ The previous permit required sampling for iron; however, there is no RP; nor are there any established TBEL or necessary TBEL for iron. Iron monitoring of the non-contact cooling water is no longer required.
- ✓ The previous permit required sampling for TSS; however, there are no numeric WQS for TSS; nor are there any established TBEL or necessary TBEL for TSS. The facility reported between non-detect and 86 mg/L during the last permit term; therefore, TSS monitoring of the non-contact cooling water is no longer required.
- ✓ A statistical RPA was conducted on appropriate parameters. A more detailed version including calculations of this RPA is available upon request.

Parameter:	Units	CMC Acute	CCC Chronic	Listing	Daily Max	Monthly Average	n#	CV	n Min	n Max	MF	RWC Acute	RWC Chronic	RP
Ammonia	mg/L	14.44	3.52	AQL	159.2	50.61	20	0.783	0.63	7.53	2.8	1.9	0.0	No
Iron (Fe)	μg/L	n/a	1000	AQL	158235503	59502555	20	1.152	510	16000	4.0	5796	0.7	No

Units are ($\mu g/L$) unless otherwise noted.

n/a Not Applicable

n number of samples; if the number of samples is 10 or greater, then the CV value must be used in the WQBEL for the applicable constituent.

CV Coefficient of Variation (CV) is calculated by dividing the Standard Deviation of the sample set by the mean of the same sample set.

CCC continuous chronic concentration

CMC continuous maximum concentration

RWC Receiving Water Concentration: concentration of a toxicant or the parameter in the receiving water after mixing (if applicable)

MF Multiplying Factor; 99% confidence level and 99% probability basis

RP Reasonable Potential: an effluent is projected or calculated to cause an excursion above a water quality standard based on a number of factors including, as a minimum, the four factors listed in 40 CFR 122.44(d)(1)(ii).

REGIONAL OFFICES (ROS)

Regional Offices will provide a compliance assistance visit at a facility's request; a regional map with links to phone numbers can be found here: <u>https://dnr.mo.gov/about-us/division-environmental-quality/regional-office</u>. Or use <u>https://dnr.mo.gov/compliance-assistance-enforcement</u> to request assistance from the Region online.

RENEWAL REQUIREMENTS

The renewal special condition permit requirement is designed to guide the facility to prepare and include all relevant and applicable information in accordance with 10 CSR 20-6.010(7)(A)-(C), and if applicable, federal regulations. The special condition may not include all requirements and requests for additional information may be made at the time of permit renewal under 644.051.13(5) RSMo and 40 CFR 122.21(h). Prior to submittal, the facility must review the entire submittal to confirm all required information and data is provided; it is the facility's responsibility to discern if additional information is required. Failure to fully disclose applicable information or application addendums may result in a permit revocation per 10 CSR 20-6.010(8)(A) and may result in the forfeiture of permit shield protection authorized in 644.051.16 RSMo. Sufficiently sensitive analytical methods must be used. A sufficiently sensitive method is one that can effectively describe the presence or absence of a pollutant at or below that pollutant's permit limit or water quality standard, whichever is less. Forms are located at: https://dnr.mo.gov/water/business-industry-other-entities/permits-certification-engineering-fees/wastewater 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. The facility may email cleanwaterpermits@dnr.mo.gov to submit the application to the Program. A paper copy is not necessary if submitted via email. For larger applications, a drop-box type service may also be used.

✓ Application materials shall include complete Form A, Form C, and Form I (for irrigation).

SAMPLING FREQUENCY JUSTIFICATION

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

SAMPLING TYPE JUSTIFICATION

Sampling type was continued from the previous permit. The sampling types are representative of the discharges and are protective of water quality. Discharges with altering effluent will consider implementing composite sampling; discharges with uniform effluent can have grab samples. 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 compliance is time allowed to meet future more stringent limitations.

 \checkmark Not applicable; this permit does not contain a SOC.

SECONDARY CONTAINMENT:

The department has established minimum requirements for secondary containment areas. These conditions are necessary to prevent contamination in stormwater before storm events, and before stormwater has a risk for contamination in these areas. By including dry inspection requirements, the department can be confident in the site's operational controls. By fixing all leaks and removing debris from the secondary containment areas prior to precipitation events, stormwater collected in the areas are unlikely to yield contamination or elicit sheen thereby allowing immediate removal of stormwater which is in compliance with SPCC plans.

The department is establishing a permit requirement for visual inspection frequency commiserate with the potential for contamination for secondary containment(s) to protect waters of the state from petroleum contamination, oils and greases, or sheen pursuant to 10 CSR 20-7.031(4)(B); and other water contaminants as necessary. These conditions establish permissible allowances for the facility to discharge stormwater that was either free of sheen or has been cleaned of sheen, but only if the facility has demonstrated, through inspections, the facility has been effectively maintaining tanks and appurtenances in the secondary containment areas.

By allowing on-site sheen removal, then discharge, the department is allowing expedited drainage of the secondary containment without delay. When a facility properly maintains tanks and appurtenances via these series of inspections and provides sheen removal prior to release, then the facility can maintain compliance with Missouri's requirements for the safe storage and handling of flammable and combustible liquids (2 CSR 90-30.050), storage tank secondary containment volume requirements (40 CFR 112), and Missouri's general water quality criteria 10 CSR 20-7.031(4)(B).

These petroleum secondary containment special conditions are based on National Fire Protection Association (NFPA) standards (mainly NFPA 30), enforceable under Missouri fire prevention codes per 2 CSR 90-30.050, and Spill Prevention, Control, and Countermeasure (SPCC) of 40 CFR 112 requirements. 2 CSR 90-30.050(20) and (21) specifically reference the Department of Natural Resources' environmental regulations. To apply these referenced conditions, this permit requires periodic secondary containment inspections.

It is acceptable for the inspections this permit requires to contradict the facility's SPCC plan inspection frequency, as these two requirements have different goals; the frequencies designated in the SPCC plan are based on the facility's evaluation of a tankage system's potential for catastrophic failure, not small leaks that result in sheeny stormwater. The inspection frequency this permit identifies for secondary containments have the capability to identify small leaks from appurtenances which have the possibility to cause contamination in standing stormwater, not simply a catastrophic failure. SPCC requirements pursuant to 40 CFR 112.8(c)(3)(iv) and 40 CFR 112.12(c)(3)(iv) also dictate that release of contaminated stormwater is prohibited unless regulated under an NPDES permit which allows for bypassing pursuant to 40 CFR 122.41(m)(3). As this permit does not allow bypassing, the facility must follow the inspection steps listed in the special conditions of this permit.

Many facilities are subject to the requirements outlined by the EPA in 40 CFR 112.3, also known as the SPCC plan: detailing the equipment, workforce, procedures, and steps necessary to prevent, control, and provide adequate countermeasures to a discharge. These regulations minimally require secondary containment and diversion structures be maintained. Title 40 regulations are developed by the Environmental Protection Agency. The self-certified SPCC plan a facility designs, while aimed to protect waters of the state and United States (WOTS/WOTUS), may differ considerably from site to site. This permit's conditions serve to treat similar facilities similarly. The EPA did not establish minimum frequency container or containment inspections; this permit does not require a professional engineer (PE) inspect the tankage systems.

SPILLS, OVERFLOWS, AND OTHER UNAUTHORIZED DISCHARGE REPORTING

Per 260.505 RSMo, any emergency involving a hazardous substance must be reported to the department's 24-hour Environmental Emergency Response hotline at (573) 634-2436 at the earliest possible moment after discovery. The department may require the submittal of a written report detailing measures taken to clean up a spill. These reporting requirements apply whether or not the spill results in chemicals or materials leaving the permitted property or reaching waters of the state. This requirement is in addition to the noncompliance reporting requirement found in Standard Conditions Part I. https://revisor.mo.gov/main/OneSection.aspx?section=260.500&bid=13989&hl=

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

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

SLUDGE - INDUSTRIAL

Industrial sludge is solid, semi-solid, or liquid residue generated during the treatment of industrial process or non-process wastewater in a treatment works; including but not limited to, scum or solids removed in primary, secondary, or advanced wastewater treatment process; scum and solids filtered from water supplies and backwashed; and any material derived from industrial sludge. Industrial sludge could also be derived from holding structure dredging or other similar maintenance activities. Certain oil sludge, like those from oil water separators, are subject to self-implementing federal regulations under 40 CFR 279 for used oils.

 \checkmark Not applicable; industrial sludge is not generated at this 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 must be reviewed by the facility to ascertain compliance with this permit, state regulations, state statutes, federal regulations, and the Clean Water Act.

STORMWATER POLLUTION PREVENTION PLAN (SWPPP)

A SWPPP must be prepared by the facility if the SIC code or facility description type is found in 40 CFR 122.26(b)(14) and/or 10 CSR 20-6.200(2). A SWPPP may be required of other facilities where stormwater has been identified as necessitating better management. The purpose of a SWPPP is to comply with all applicable stormwater regulations by creating an adaptive management plan to control and mitigate stream pollution from stormwater runoff.

Pursuant to 40 CFR 122.44(k), Best Management Practices (BMPs) must be used to control or abate the discharge of pollutants when: 1) Authorized under §304(e) of the Clean Water Act (CWA) for the control of toxic pollutants and hazardous substances from ancillary industrial activities; 2) Authorized under §402(p) of the CWA for the control of stormwater discharges; 3) Numeric effluent limitations are infeasible; or 4) the practices are reasonably necessary to achieve effluent limitations and standards or to carry out the purposes and intent of the CWA. A BMP may take the form of a numeric benchmark. In accordance with the EPA's *Developing Your Stormwater Pollution Prevention Plan, A Guide for Industrial Operators*, (EPA 833-B-09-002) published by the EPA in 2015 and again in 2021 <u>https://www.epa.gov/sites/default/files/2021-03/documents/swppp_guide_industrial_2021_030121.pdf</u> BMPs are measures or practices used to reduce the amount of pollution entering waters of the state from a permitted facility. BMPs may take the form of a process, activity, or physical structure. Additionally in accordance with the Stormwater Management, a SWPPP is a series of steps and activities to 1) identify sources of pollution or contamination, and 2) select and carry out actions which prevent or control the pollution of storm water discharges. Additional information can be found in *Stormwater Management for Industrial Activities: Developing Pollution Prevention Plans and Best Management Practices* (EPA 832-R-92-006; September 1992).

Developing a SWPPP provides opportunities to employ appropriate BMPs to minimize the risk of pollutants being discharged during storm events. The following paragraph outlines the general steps the facility can take to determine which BMPs will work to achieve the benchmark values or limits in the permit. This section is not intended to be all encompassing or restrict the use of any physical BMP or operational and maintenance procedure assisting in pollution control. Additional steps or revisions to the SWPPP may be required to meet the requirements of the permit.

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

Areas which must 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 shall be formulated to best control the amount of pollutant being released and discharged by each activity or source. This must 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 must be taken to repair, improve, or replace the failing BMP. This internal evaluation is required at least once per month but may 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 per 10 CSR 20-7.031(3). For further guidance, consult the antidegradation implementation procedure (https://dnr.mo.gov/document-search/antidegradation-implementation-procedure).

Alternative Analysis (AA) evaluation of the BMPs is a structured evaluation of BMPs which are reasonable and cost effective. The AA evaluation can 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 exposure" is not a feasible alternative at the facility. This structured analysis of BMPs serves as the antidegradation review, fulfilling the requirements of 10 CSR 20-7.031(3) Water Quality Standards and *Antidegradation Implementation Procedure* (AIP), §II.B.

The SWPPP cannot authorize non-stormwater discharges. A permit condition or de minimis declaration is the only means that can authorize any water which is not composed entirely of rainfall or snowmelt runoff.

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 must contain adequate documentation of BMPs employed, failed BMPs, corrective actions, and all other required information. This will allow the department to conduct a cost analysis on control measures and actions taken by the facility to determine cost-effectiveness of BMPs. The request shall be submitted in the form of an operating permit modification, which includes an appropriate fee; the application is found at: https://dnr.mo.gov/water/business-industry-other-entities/permits-certification-engineering-fees/wastewater

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

SUFFICIENTLY SENSITIVE ANALYTICAL METHODS

Please review Standard Conditions Part 1, §A, No. 4. The analytical and sampling methods used shall conform to the reference methods listed in 10 CSR 20-7.015 or 40 CFR 136 unless alternates are approved by the department and incorporated within this permit. The facility shall use sufficiently sensitive analytical methods for detecting, identifying, and measuring the concentrations of pollutants. The facility shall ensure the selected methods are able to quantify the presence of pollutants in any given discharge at concentrations low enough to determine compliance with Water Quality Standards in 10 CSR 20-7.031 or effluent limitations unless provisions in the permit allow for other alternatives. The reporting limits established by the chosen laboratory must be below the lowest effluent limits established for the specified parameter (including any parameter's future limit after an SOC) in the permit unless the permit provides for an ML or if the facility provides a written rationale to the department. It is the facility's responsibility to ensure the laboratory has adequate equipment and controls in place to quantify the pollutant. Inflated reporting limits will not be accepted by the department if the reporting limit is above the parameter value stipulated in the permit. A method is "sufficiently sensitive" when; 1) the method quantifies the pollutant below the level of the applicable water quality criterion or; 2) the method minimum level is above the applicable water quality criterion, but the amount of pollutant in a facility's discharge is high enough the method detects and quantifies the level of pollutant in the discharge, or 3) the method has the lowest minimum level of the analytical methods approved under 10 CSR 20-7.015 and or 40 CFR 136. These methods are also required for parameters listed as monitoring only, as the data collected may be used to determine if numeric limitations need to be established. A facility is responsible for working with their contractors to ensure the analysis performed is sufficiently sensitive.

UNDERGROUND INJECTION CONTROL (UIC)

Class V wells are sub-surface dispersal or injection of any industrial wastewater; and in certain circumstances, may also be considered a Class V well if it is domestic wastewater. They can also be shallow injection wells like heat pumps and groundwater remediation wells. UIC systems may be described as having "septic tanks" or "lateral lines" in addition to the traditional well type of injection. \checkmark Not applicable; the facility has not submitted materials indicating the facility is or will be performing UIC at this site.

WASTELOAD ALLOCATIONS (WLA) FOR LIMITS

Per 10 CSR 20-2.010; definitions, the WLA is the maximum amount of pollutant each discharger is allowed to discharge into the receiving stream without endangering water quality. Only streams with available load allocations can be granted discharge allowances. Outfalls afforded mixing allocations provide higher limits because the receiving stream is able to accept more pollutant loading without causing adverse impacts to the environment or aquatic life.

✓ Applicable; wasteload allocations for oil and grease was calculated in this permit; see Part IV.

WATER QUALITY STANDARD REVISION

In accordance with 644.058 RSMo, the department is required to utilize an evaluation of the environmental and economic impacts of modifications to water quality standards of twenty-five percent or more when making individual site-specific permit decisions.

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

WHOLE EFFLUENT TOXICITY (WET) TEST

A WET test is a quantifiable method to conclusively determine if discharges from the facility cause toxicity to aquatic life by itself, in combination with, or through synergistic responses, typically when mixed with receiving stream water. Under the CWA §101(a)(3), requiring WET testing is reasonably appropriate for Missouri State Operating Permits to quantify toxicity. WET testing is also required by 40 CFR 122.44(d)(1) when RP is found. WET testing ensures the provisions in 10 CSR 20-6 and Missouri's Water Quality Standards in 10 CSR 20-7 are being met; the acute WQS for WET is 0.3 TUa. Under 10 CSR 20-6.010(8)(A)4, the department may require other terms and conditions it deems necessary to ensure compliance with the CWA and related regulations of the Missouri Clean Water Commission. Missouri Clean Water Law (MCWL) RSMo 644.051.3 requires the department to set permit conditions complying with the MCWL and CWA. 644.051.4 RSMo specifically references toxicity as an item the department must consider in permits (along with water quality-based effluent limits); and RSMo 644.051.5 is the basic authority to require testing conditions. Requirements found in the federal application requirements for POTWs (40 CFR 122.21(j)(5)) do not apply to industrial facilities, therefore WET testing can be implemented on a case-by-case basis following the factors outlined below. Annual testing is the minimum testing frequency if reasonable potential is found: monitoring requirements promulgated in 40 CFR 122.44(i)(2) state "requirements to report monitoring results shall be established on a case-by-case basis with a frequency dependent on the nature and effect of the discharge, but in no case less than once per year." To determine reasonable potential, factors considered are: 1) history of toxicity; 2) quantity and quality of substances (either limited or not) in the permit with aquatic life protections assigned; and 3) operational controls on toxic pollutants. See Part III under REASONABLE POTENTIAL for additional information. A facility does not have to be designated as a major facility to receive WET testing; and being a major facility does not automatically require WET testing. Additionally, per 40 CFR 122.44(d)(1)(v), limits on whole effluent toxicity are not necessary where the permitting authority demonstrates in the fact sheet, using the procedures in 40 CFR 122.44(d)(1)(ii) of this section, that chemical-specific limits or specified operational controls are sufficient to attain and maintain applicable numeric and narrative water quality standards.

If WET limits are applied to this facility, follow up testing applies. When a facility exceeds the TU established in the permit, three additional follow-up tests are triggered. The follow up test results do not negate the initial testing result. If the facility is within the prescribed TU limit for all three follow up tests, then no further testing is required until the next regularly scheduled tests. If one or more additional tests exceed the TU limit, the facility may consider beginning the Toxicity Identification Evaluation (TIE) and Toxicity Identification Reduction (TRE) processes instead of waiting for three consecutive TU exceedances. The TIE and TRE process can take up to two years, especially when toxicity is variable or transient. We urge facilities to work closely with their WET testing laboratory to follow nationwide guidance for determining causes of toxicity and curative activities to remove toxicity. Additional wastewater controls may be necessary; and while, generally, no Construction Permit (CP) is required for adding treatment at industrial facilities, the facility may check with the Engineering Section to determine a plan of action.

If WET testing failures are from a known toxic parameter, and the facility is working with the department to alleviate that pollutant's toxicity in the discharge, please contact the department prior to conducting follow-up WET testing. Under certain conditions, follow-up testing may be waived when the facility is already working to reduce and eliminate toxicity in the effluent. For the purposes of reporting, the laboratory may supply either the TU value, the LC₅₀, or the NOEC. If the laboratory only supplied the LC₅₀ or the NOEC value, the toxic unit is calculated by $100/LC_{50}$ for acute tests, or 100/NOEC for chronic tests. The TU value is entered in the eDMR system. Reports showing no toxicity are usually entered as <1.

✓ Not applicable; WET testing was not implemented in this permit because there is no RP for pollutants considered toxic, the pollutants limited in this permit are sufficient to determine effluent toxicity and there is no RP for WET.

PART IV. EFFLUENT LIMIT DETERMINATIONS

OUTFALL #005 - MAIN FACILITY OUTFALL

EFFLUENT LIMITATIONS TABLE:

PARAMETERS	Unit	Daily Max	Monthly Avg.	PREVIOUS PERMIT LIMITS	Minimum Sampling Frequency	Reporting Frequency	Sample Type
PHYSICAL							
FLOW	MGD	*	*	SAME	ONCE/QUARTER	QUARTERLY	24 Hr. Tot
CONVENTIONAL							
CHLORINE, TOTAL RESIDUAL (TRC)	μg/L	*	*	SAME	ONCE/QUARTER	QUARTERLY	GRAB
OIL & GREASE	mg/L	15	10	SAME	ONCE/QUARTER	QUARTERLY	GRAB
PH [†]	SU	6.0 то 9.0	-	SAME	ONCE/QUARTER	QUARTERLY	GRAB
NUTRIENTS							
Ammonia as N	mg/L	*	*	SAME	ONCE/QUARTER	QUARTERLY	GRAB
NITROGEN, TOTAL N (TN)	mg/L	*	*	NEW	ONCE/QUARTER	QUARTERLY	GRAB

* monitoring and reporting requirement only

† report the minimum and maximum pH values; pH is not to be averaged

‡ An ML is established for TRC; see permit.

new parameter not established in previous state operating permit

DERIVATION AND DISCUSSION OF LIMITS:

PHYSICAL:

Flow

Per 40 CFR Part 122.44(i)(1)(ii) the volume of effluent discharged from each outfall is needed to ensure compliance with permitted effluent limitations. If the facility is unable to obtain effluent flow, then it is the responsibility of the facility to inform the department, which may require the submittal of an operating permit modification. The facility will report the total maximum daily flow and average in millions of gallons per day (MGD), quarterly monitoring continued from previous permit. The facility reported from 0.02 to 0.1149 MGD in the last permit term.

CONVENTIONAL:

Chlorine, Total Residual (TRC)

The facility reported non-detects in the last permit term. This pollutant continues to require monitoring because the facility adds chlorine and bromine or uses city potable water. There are no TBEL required for this parameter either. Quarterly monitoring is continued. This parameter must be measured within the 15-minute holding time.

Oil & Grease

15 mg/L daily maximum; 10 mg/L monthly average; continued from previous permit using RPD. The facility reported from nondetect to 33 mg/L in the last permit term. Oil and grease is considered a conventional pollutant. Oil and grease is a comprehensive test which measures for gasoline, diesel, crude oil, creosote, kerosene, heating oils, heavy fuel oils, lubricating oils, waxes, and some asphalt and pitch. The test can also detect some volatile organics such as benzene, toluene, ethylbenzene, or xylene, but these constituents are often lost during testing due to their boiling points. An RPD on this parameter found RP based on the data. 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 limit this permit applies does not allow the facility to violate general criteria pursuant to 10 CSR 20-7.015(4) even if data provided are below the numeric limit.

AQL Chronic: 10 mg/L per 10 CSR 20-7.031 Table A1

Set chronic standard equal to chronic WLA per TSD 5.4.2 (EPA/505/2-90-001); multiply by 1.5 to obtain acute limit. 10 mg/L * 1.5 = 15 mg/L

<u>рН</u>

6.0 to 9.0 SU. Technology based limits per 10 CSR 20-7.015(9)(I)1. are applicable to this outfall. Using RPD, there is no reasonable potential to affect water quality therefore technology limitations for wastewater are applied. The facility reported from 6.1 to 8.08 SU in the last permit term. This parameter must be measured within the 15-minute holding time. pH is a fundamental water quality indicator. Additionally, metals leachability and ammonia availability in wastewater is dependent on pH. Limitations in this permit will protect against aquatic organism toxicity, downstream water quality issues, human health hazard contact, and negative physical changes in accordance with the general criteria at 10 CSR 20-7.031(4) and the Clean Water Act's (CWA) goal of 100% fishable and swimmable rivers and streams. The effluent limitations in the previous permit have been revaluated and found to be protective of the receiving stream, is appropriate based on the activities at the site and is continued pursuant to 10 CSR 20-7.015(9)(I)1 utilizing best professional judgment and in compliance with antibacksliding regulations.

NUTRIENTS:

Ammonia, Total as Nitrogen

Ammonia is a pollutant of concern; therefore, quarterly reporting is required and continued. The sampling requirement is appropriate based on the activities at the site and is continued pursuant to 10 CSR 20-7.015(9)(I)1 utilizing best professional judgment. The facility reported from 0.63 to 7.53 mg/L in the last permit term. There is no RP.

Nitrogen, Total (TN)

Nitrogen is a pollutant of concern therefore quarterly reporting is required utilizing best professional judgment per 10 CSR 20-7.015(9)(I)1. This is a new requirement. See note \downarrow in the permit.

PERMITTED FEATURE #L01 – LAND APPLICATION FIELD

See Special Conditions in the permit and Part III LAND APPLICATION in the fact sheet.

PART V. ADMINISTRATIVE REQUIREMENTS

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

PUBLIC NOTICE

The department shall give public notice a draft permit has been prepared and its issuance is pending. Additionally, public notice will be issued if a public hearing is to be held because of a significant degree of interest in or with concerns related to a draft permit. No public notice is required when a request for a permit modification or termination is denied; however, the requester and facility must be notified of the denial in writing. <u>https://dnr.mo.gov/water/what-were-doing/public-notices</u> The department must issue public notice of a draft operating permit. The public comment period is the length of time not less than 30 days following the date of the public notice which interested persons may submit written comments about the proposed permit.

For persons wishing to submit comments regarding this proposed operating permit, please refer to the Public Notice page located at the front of this draft operating permit. The Public Notice page gives direction on how and where to submit appropriate comments. All comments must be in written form.

✓ The Public Notice period for this operating permit was May 10, 2024 through June 10, 2024. No comments were received.

DATE OF FACT SHEET: APRIL 10, 2024; formatted for issuance JUNE 6, 2024

COMPLETED BY:

PAM HACKLER, ENVIRONMENTAL SCIENTIST MISSOURI DEPARTMENT OF NATURAL RESOURCES WATER PROTECTION PROGRAM OPERATING PERMITS SECTION - INDUSTRIAL UNIT (573) 526-3386 pam.hackler@dnr.mo.gov

STANDARD CONDITIONS FOR NPDES PERMITS ISSUED BY THE MISSOURI DEPARTMENT OF NATURAL RESOURCES MISSOURI CLEAN WATER COMMISSION Revised October 1, 1980

PART II - SPECIAL CONDITIONS - PUBLICLY OWNED TREATMENT WORKS

SECTION A - MAJOR CONTRIBUTING INDUSTRY

1. Definitions

Definitions as set forth in the Missouri Clean Water Laws and Missouri Clean Water Commission Definition Regulation 10 CSR 20-2.010 shall apply to terms used herein, in addition to the following:

- a. A "major contributing industry" to a publicly owned treatment facility is a wastewater source that meets any one of the following criteria:
 - (1) has a flow of 50,000 gallons or more
 per average workday;
 - (2) has an average daily flow greater than five percent (5%) of the flow carried by the system receiving the waste;
 - (3) has in its waste a toxic pollutant in toxic amounts as defined in standards issued under Section 307(a) of the Federal Water Pollution Control Act (hereinafter the Act), or
 - (4) has significant impact, either singly or in combination with other contributing industries, on the treatment works or in the quality of its effluent.
- b. "Compatible pollutants" are biochemical oxygen demand, suspended solids, pH, and fecal coliform bacteria, plus additional pollutants, e.g., nitrogen or phosphorus, identified in the NPDES permit, if the publicly owned treatment facility was designed to treat such pollutants, approved by the Department and in fact does remove such pollutants to design specifications.
- c. An "incompatible pollutant" is any pollutant which is not a compatible pollutant as defined above.

2. Industrial Effluent Monitoring

The permittee shall establish and implement a procedure to periodically or regularly obtain monitoring data on the quality and quantity of all effluents introduced by each major contributing industry. Frequency of monitoring shall be subject to approval by the Department.

3. Industrial Users Report

Each permittee which has a major contributing industry shall also submit to the permit-issuing authority semi-annual reports summarizing all major contributing industries subject to the pretreatment requirements of the Missouri Clean Water Law and Regulations (hereinafter the Law and Regulations), or Section 307 of the Act. These reports must be filed with the Department of Natural Resources, PO Box 176, 205 Jefferson Street, Jefferson City, Missouri 65102 by January 1 and July 1 of each year. Such a report shall include at least the following information:

- a. name and number of major contributing industries using the treatment works and the waste type, raw materials usage (lbs/day or kg/day), and average daily flow for each industry;
- b. summary of monitoring data obtained in accordance with Standard Conditions Part II, Section A.2 above, detailing the quality and quantity of all effluents introduced by each major contributing industry, and the frequency of monitoring performed;
- c. number of major contributing industries in full compliance with the requirements of the Law and Regulations and Section 307 of the Act or not subject to these requirements (e.g., discharge only compatible pollutants), and
- d. a list identifying by name those major contributing industries presently in violation of the requirements of the Law and Regulations and Section 307 of the Act (e.g., discharges pollutant which interferes with, passes through or is incompatible with the municipal treatment works).

4. Report on Pollutant Introduction

The permittee shall give notice to the department of any new introduction of pollutants or any substantial change in the character or volume of pollutants already being introduced. Such notice shall include:

- a. the origin, quality, and quantity of pollutants to be introduced into the publicly owned treatment works; and
- b. any anticipated impact on the quality and quantity of the effluent to be discharged by such treatment works:
- c. any anticipated impact on the quality of sludge produced by such treatment works causing the sludge to be hazardous under Federal and State Law.

5. Industrial Users Compliance Schedules The permittee shall identify any introduction of pollutants into the facility subject to pretreatment standards under Section 307(b) of the Federal Clean Water Act. In addition, the permittee shall require any industrial user of such treatment works to comply with the requirements of Section 204(b), 307, and 308 of the Federal Clean Water Act. As a means of compliance from each industrial user, subject to the requirements of Section 307 of the Federal Clean Water Act and shall forward to the Department a copy of periodic notice, over intervals not to exceed nine (9) months, of progress towards full compliance with Section 307 requirements.

	Dupenuters	(j	P 41841			
	IRCES	FOR AGENCY USE ONLY				
WATER PROTECTION PROGRAM CCANIN	MAR 20 2023 CHE					
Lean WATER LAW	Mater Protection Program	RECEIVED	FEE SUBMITTED			
Note PLEASE READ THE ACCOMPANYING INSTE	SUCTIONS REFORE COMPLETING	THIS FORM	2			
1. This application is for:		THE FORM				
An operating permit for a new or unpermitte	ed facility:					
Please indicate the original Construction Pe	ermit #					
Please indicate the permit # MO_{-} 0001821	✓ An operating permit renewal: Please indicate the permit # MO_0001821 Expiration Data September 30, 2023					
An operating permit modification:						
Please indicate the permit # MO	Modification Reason:					
1.1 Is the appropriate fee included with the application? (S	See instructions for appropriate fee)					
NAME		TELEPHONE	NUMBER WITH AREA CODE			
CF Industries Sales, LLC - Palmyra Terminal		(573) 769 FAX	-2184			
ADDRESS (PHYSICAL)	CITY	(573) 769 STATE	-2186			
2838 County Road 359	Palmyra	MO	63461			
3. OWNER						
CF Industries Distribution Facilities, LLC	rachel.robins@cfindustries.com	(224) 300	-1917			
		FAX				
4 Parkway North, Suite 400	Deerfield	IL STATE	ZIP CODE 60015			
3.1 Request review of draft permit prior to public noti	ce? 🔳 YES 🗌 NO					
4. CONTINUING AUTHORITY		1				
CF Industries Sales, LLC	rachel.robins@cfindustries.com	(847) 405	(847) 405-2400			
		FAX				
ADDRESS (MAILING) 4 Parkway North, Suite 400	CITY Deerfield	STATE	ZIP CODE 60015			
5. OPERATOR						
NAME N/A	CERTIFICATE NUMBER	TELEPHONE	NUMBER WITH AREA CODE			
		FAX				
ADDRESS (MAILING)	CITY	STATE	ZIP CODE			
6. FACILITY CONTACT		Contraction of				
NAME	TITLE	TELEPHONE	NUMBER WITH AREA CODE			
Mike Curtis	E-MAIL ADDRESS	(573) 406-7112 FAX				
	mcurtis@cfindustries.com	(573) 769	-2186			
7.4 Logal Description of Outfalls (Attack additional a						
7.1 Legal Description of Outralis. (Attach additional s	neets if necessary.)					
UTM Coordinates Easting (X): 633459 Nort	hing (Y): 4411978	<u>IVIA</u>	County			
For Universal Transverse Mercator (UTM), Zone 15	North referenced to North American Date	ım 1983 (NAL	083)			
UTM Coordinates Easting (X): Nort	hing (Y):		County			
	TR		County			
$\begin{array}{c} \text{Orm} \text{Coordinates Easting (X):} ______ Nort\\ 004 \qquad 1/4 \qquad 1/4 \qquad \text{Sec} \end{array}$	T R		County			
UTM Coordinates Easting (X):Nort	hing (Y):					
7.2 Primary Standard Industrial Classification (SIC) and Fac	cility North American Industrial Classi	fication Syst	em (NAICS) Codes.			
003 – SIC and NAICS 424910	002 – SIC al 004 – SIC al	nd NAICS_				
MO 780-1479 (07-14)						

8.	ADDITIONAL FORMS AND MAPS NECESSARY TO CO (Complete all forms that are applicable.)	OMPLETE THIS APPLICATIO	N				
Α.	Is your facility a manufacturing, commercial, mining or sil If yes, complete Form C or 2F. (2F is the U.S. EPA's Application for Storm Water Discha	ity? YES ☑] NO []				
В.	Is application for storm water discharges only? If yes, complete Form C or 2F.	YES [] NO 🛛				
C.	Is your facility considered a "Primary Industry" under EPA If yes, complete Forms C or 2F and D.	guidelines:	YES [] NO 🛛			
D.	ls wastewater land applied? If yes, complete Form I.		YES] NO 🗹			
E.	Is sludge, biosolids, ash or residuals generated, treated, stored or land applied? YES NO 🔽 If yes, complete Form R.						
F.	If you are a Class IA CAFO, please disregard part D and E of this section. However, please attach any revision to your Nutrient Management Plan.						
F.	Attach a map showing all outfalls and the receiving stream at 1" = 2.000' scale.						
9.	DOWNSTREAM LANDOWNER(S) Attach additional shee (PLEASE SHOW LOCATION ON MAP. SEE 8.D ABOVE	ets as necessary. See Instruc	ctions.	States 1			
MFA, Inc	c Palmyra Fertilizer						
ADDRESS 2834 Col	unty Road 359	רודץ Palmyra	STATE MO	ZIP CODE 63461			
10.	I certify that I am familiar with the information contained in information is true, complete and accurate, and if granted all rules, regulations, orders and decisions, subject to any Water Law to the Missouri Clean Water Commission.	the application, that to the be this permit, I agree to abide b legitimate appeal available to	est of my knowledge by the Missouri Clea applicant under the	and belief such n Water Law and Missouri Clean			
NAME AND	OFFICIAL TITLE (TYPE OR PRINT)		TELEPHONE NUMBER W	TH AREA CODE			
Amanuel	Welderufael, General Manager - Distribution Facilities		(847) 405-2520				
SIGNATURE	und welderige			2023			

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

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

HAVE YOU INCLUDED:

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

Form C – Application for Discharge Permit

	SOURCES	FOR AGENCY	USE ONLY
FORM C – APPLICATION FOR DISC	HARGE PERMIT -	CHECK NO.	
MANUFACTURING, COMMERCIAL, SILVICULTURE OPERATIONS, PRO	MINING, Mater Protection Process CESS AND STORMWATER	DATE RECEIVED	FEE SUBMITTED
NOTE: DO NOT ATTEMPT TO COMPLETE THIS FORM	BEFORE READING THE ACCOMP	ANYING INSTRU	CTIONS
1.00 NAME OF FACILITY			
CF Industries Sales, LLC - Palmyra Terminal			
MO-0001821 (Expiration Date: September 30, 2023)	INUMBER		
1.20 THIS IS A NEW FACILITY AND WAS CONSTRUCTED UNDER MISSOURI CONST	FRUCTION PERMIT NUMBER (COMPLETE ONLY IF T	HIS FACILITY DOES NO	FHAVE AN OPERATING
N/A			
2.00 LIST THE STANDARD INDUSTRIAL CLASSIFICATION (SIC) CODES ADDUCADU			
	e to took facility (rook bigh cobe)		
A. FIRST	B. SECOND		
C. THIRD	D. FOURTH		
2.10 FOR EACH OUTFALL GIVE THE LEGAL DESCRIPTION.			
OUTFALL NUMBER (LIST)1/41/4 SE	ες τ58N _5WMario	n	COUNTY
2.20 FOR EACH OUTFALL LIST THE NAME OF THE RECEIVING WATER			
OUTFALL NUMBER (LIST)	RECEIVING WATER		
005	Mississippi River		
2.30 BRIEFLY DESCRIBE THE NATURE OF YOUR BUSINESS			
Storage and distribution of anhydrous ammonia (agricultura	ıl fertilizer).		
Ammonia is received by barge along the Mississioni Pivor	The ammenia is numped into an above	up around storage	topk and
distributed to customer via truck.	The animonia is pumped into an above	re-ground storage	
Terminal operations are supported by an evaporative conde	enser which discharges non-contact	cooling water to th	a Mississioni Rivar
via Outfall #5.	silon, which discharges non-contact (sooning water to t	ie mississippi ravei
Stormwater runoff is also discharged to the Mississioni Rive	er at Outfall #5		

-

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

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

1. OUTFALL NO.	2. OPERATION(S) CONTRIBUTING FLOW	3. TREA	TMENT
(LIST)	A. OPERATION (LIST)	B. AVERAGE FLOW (INCLUDE UNITS) (MAXIMUM FLOW)	A. DESCRIPTION	B. LIST CODES FROM TABLE A
005	Evaporative Condensers	0.01 MGD	See SDSs included	4-A
			for incoming water	
			additives	
	Groundwater & stormwater	0.03 MGD	NONE	4-A
	runoff and septic seepage			
	Pump by-pass	0.02 MGD	NONE	4-A

2.40 CONTINUED

C. EXCEPT FOR	STORM RUNOFF, LEAKS OR SPI	LLS, ARE ANY OF THE DIS	CHARGES DESC	RIBED IN ITEMS	A OR B INTERMI	TENT OR SEAS	DNAL?		
	YES (COMPLETE THE FOLL	OWING TABLE)		TO SECTION 2	2.50)				
		,			T Í	4. F	LOW		
1. OUTFALL				3. FREQUENCY		A. FLOW RATE (in mgd) B. TOTAL VO			1
NUMBER (list)	NUMBER (list) 2. OPERATION(S) CONTRIBUTING FLOW (list)		A. DAYS PER WEEK (specify average)	B. MONTHS PER YEAR (specify average)	1. LONG TERM AVERAGE	2. Maximum Daily	4. LONG TER DAILY	M 3. MAXIMUM AVERAGE	C. DURATIOI (in days)
2.50 MAXIMUM PF A. DOES AN	RODUCTION EFFLUENT GUIDELINE LIMITATIO (COMPLETE B.)	ON PROMULGATED BY EP	PA UNDER SECTIO	ON 304 OF THE (CLEAN WATER AC	CT APPLY TO YO	JR FACILITY?		
B. ARE THE I	IMITATIONS IN THE APPLICABL	E EFFLUENT GUIDELINES	EXPRESSED IN "	TERMS OF PROI	DUCTION (OF OTH	HER MEASURE C	F OPERATION)?		
C. IF YOU AN AND UNITS U	ISWERED "YES" TO B. LIST THE SED IN THE APPLICABLE EFFLU	QUANTITY THAT REPRES ENT GUIDELINE AND INDI	ENTS AN ACTUAL	L MEASUREMEN	IT OF YOUR MAXI 3.	MUM LEVEL OF I	PRODUCTION, E	XPRESSED IN TH	ETERMS
		1. MAX	IMUM QUANTITY					2. AF	FECTED
A. QUANTITY PER	NTITY PER DAY B. UNITS OF MEASURE C. OPERATION, PRODUCT, MATERIAL, ETC. (specify)				OUTFALLS (list outfall numbers)				
2.60 IMPROVEMEN A. ARE YOU I OPERATION C APPLICATION STIPULATION U YES (COI	TS NOW REQUIRED BY ANY FEDER. DF WASTEWATER TREATMENT F ? THIS INCLUDES, BUT IS NOT I S, COURT ORDERS AND GRANT MPLETE THE FOLLOWING TABLE	AL, STATE OR LOCAL AUT EQUIPMENT OR PRACTICE IMITED TO, PERMIT CON OR LOAN CONDITIONS.	THORITY TO MEE ES OR ANY OTHE DITIONS, ADMINI O TO 3.00)	T, ANY IMPLEME R ENVIRONMEN STRATIVE OR EI	ENTATION SCHED ITAL PROGRAMS NFORCEMENT OF	ULE FOR THE C THAT MAY AFFE RDERS, ENFORC	ONSTRUCTION, CT THE DISCHA EMENT COMPLI	UPGRADING OR RGES DESCRIBE ANCE SCHEDULE	D IN THIS LETTERS,
1. IDENTIF	ICATION OF CONDITION	2. AFFECTED OU	TFALLS					4. FINAL COMP	LIANCE DATE
AG	REEMENT, ETC.			э.	DRIEF DESCRIPT	ION OF PROJEC		A. REQUIRED	B. PROJECTED
B. OPTIONAL: MAY AFFECT YOUR ACTUAL	YOU MAY ATTACH ADDITIONAI YOUR DISCHARGES) YOU NOW OR PLANNED SCHEDULES FOI	L SHEETS DESCRIBING AN HAVE UNDER WAY OR WI R CONSTRUCTION.	NY ADDITIONAL V HICH YOU PLAN.	NATER POLLUTI	ON CONTROL PR THER EACH PRO	OGRAMS (OR O GRAM IS NOW U	THER ENVIRON	MENTAL PROJEC PLANNED, AND IN	<i>TS WHICH</i> DICATE
	101		-						

3.00 INTAKE AND EFFLUENT CHARACTERISTICS

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

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

1 POLLUTANT	2 SOURCE	
Bromide	Water additive	2. 000102
Fecal Coliform	Septic System seepage	
Nitrate - Nitrate (as N)	Groundwater	
Nitrogen, Total Organic (as N)	Groundwater	
Oil and Grease	Storm Water Runoff	
Iron, Total	Groundwater	
Chlorine, Total Residual	Water additive	

DO YOU HAVE ANY KNOWLEDGE OR REA DISCHARGES OR ON RECEIVING WATER	ASON TO BELIEVE THAT ANY BIOLOGICAL TEST IN RELATION TO YOUR DISCHARGE WITHIN TH SCRIBE THEIR PURPOSES BELOW.)	FOR ACUTE OR CHRONIC TOXIC IE LAST THREE YEARS? IO (GO TO 3.20)	TY HAS BEEN	NMADE ON ANY OF YOUR
3.20 CONTRACT ANALYSIS INFORMATION WERE ANY OF THE ANALYSES REPORTED		OR CONSULTING FIRM?		
Yes (LIST THE NAME, ADDRESS AND T	TELEPHONE NUMBER OF AND POLLUTANTS AN	IALYZED BY EACH SUCH LABORA	TORY OR FIR	M BELOW.) NO (GO TO 3.30)
A. NAME	B. ADDRESS	C. TELEPHONE (area code a	nd number)	D. POLLUTANTS ANALYZED (list)
Pace Analytical Services, LLC	2231 W. Altorfer Drive Peoria, IL 61615	(800)-752-6651		Pollutants currently required by NPDES:
				TSS,
				Oil & Grease,
				Ammonia (as N), pH.
				TRC,
				Iron (total recoverable)
				Additional monitoring required for NPDES renewal:
				Describe
				Bromide, BOD.
				TOC,
				Chlorine (total residual), Nitrate (as N)
				Nitrogen, total organic (as N),
				tecal coliform
				Flow is measured on-site via calibrated meter.
.30 CERTIFICATION				
CERTIFY UNDER PENALTY OF LAW HIS APPLICATION AND ALL ATTACH OR OBTAINING THE INFORMATION RE SIGNIFICANT PENALTIES FOR \$	V THAT I HAVE PERSONALLY EXAMI HMENTS AND THAT, BASED ON MY I, I BELIEVE THAT THE INFORMATIO SUBMITTING FALSE INFORMATION,	NED AND AM FAMILIAR V INQUIRY OF THOSE INDI' IN IS TRUE, ACCURATE A INCLUDING THE POSSIB	/ITH THE I /IDUALS II ND COMPI LITY OF F	NFORMATION SUBMITTED IN MMEDIATELY RESPONSIBLE LETE. I AM AWARE THAT THERE INE AND IMPRISONMENT.
AME AND OFFICIAL TITLE (TYPE OR PRINT)			ELEPHONE N	IUMBER WITH AREA CODE
Amanuel Welderufael, General Ma	anager - Distribution Facilities		(847) 405	-2520
IGNATURE (SEE INSTRUCTIONS)	rel	Ľ		12/2022
M0 780-1514 (06-13)	-61		es p	PAGE 5
FORM C TABLE 1 FOR 3.00 ITEM A AND B

OUTFALL NO.

													_	0	05	
PARTA – You must provide th	e results o	f at least o	one analysis	for eve	ry pollutant	t in this table. Co	mplete one tat	ble for each outfal	. See inst	uctions for a	dditional details.	-16.16.1				
1. POLLUTANT	A. MAX	(IMUM DAI	AILY VALUE B. MAXIMUM 30 DAY VALUE (if available)		C. LONG TERM AVRG. VALUE (if available)			3. UNITS (spe	city if blank)	A	A. LONG TERM AVRG. VALUE					
	(1 CONCEN	I) TRATION	(2) MASS	CONCI	(1) ENTRATION	(2) MASS	(1) CONCENTRA	TION (2) MAS	is A	NALYSES	TRATION	B. MASS	co	(1) INCENTRATION	(2) MASS	B. NO. OF ANALYSES
A. Biochemical Oxygen Demand (BOD)	<	4	<1717							1	mg/L	g				
B. Chemical Oxygen Demand (COD)	5	0	21747		50	21747	27.5	11886	.5	4	mg/L	g				
C. Total organic Carbon (TOC)	6.	.2	2661							1	mg/L	g				
D. Total Suspended Solids (TSS)	1	9	8263.9		19	8263.9	7.75	3353.	8	4	mg/L	g				
E. Ammonia (as N)	3.	.8	1631.2		3.8	1631.2	2.99	1289.	8	4	mg/L	g				
F. Flow	VALUE 0.1149			VALUE	19	1.	VALUE 0.1138			4	MGD		VAI	.UE	_	
G. Temperature (winter)	VALUE 15.6			VALUE 15.6		VALUE 11.4			4	•C	°C VA		LUE			
H. Temperature (summer)	VALUE 24.8			VALUE 24.8		VALUE 4		4	°C		VAI	LUE				
I. pH	MINIMUM 6.6	M 8	AXIMUM 8.08	MINIMU 6.6	IM	MAXIMUM 8.08				4	STANDAR	UNITS	1 and	and strain		2000
PART B – Mark "X" in column 2A for pollutant. Complete one table for ea	each polluta	ant you kno See the inst	w or have rea ructions for ad	son to be	lieve is prese etails and re	ent. Mark "X" in colu quirements.	umn 2B for each	pollutant you believe	to be absent	. If you mark o	olumn 2A for any po	lutant, you m	ust provid	de the results for at	east one analy	sis for that
	2. MA	RK "X"					3. EFFLUENT				4	UNITS	_	5. IN	TAKE (optiona	al)
1. POLLUTANT AND CAS NUMBER	A.	B.	A. MAXIM	UM DAIL	Y VALUE	B. MAXIMUM 30 (if avail	DAY VALUE	C. LONG TERM / (if availe	AVRG. VALL	IE D. NO		_		A. LONG TERM	AVRG. VALUE	
	PRESENT	ABSENT	(1) CONCENT	RATION	(2) MASS	(1) CONCENTRATIO	(2) MASS	(1) CONCENTRATION	(2) MAS	S ANALYS	ES TRATION	B. M	IASS	(1) CONCENTRATIO	N (2) MASS	ANALYSE
CONVENTIONAL AND NONC	ONVENTIO	ONAL PO	LLUTANTS								.1			-		
A. Bromide (24959-67-9)	x		<1		<429					1	mg/L	9	g			
B. Chlorine, Total Residual	x		0.05	50	21.75	0.050	21.75	0.050	21.5	3 4	ma/L		a			-
C. Color		x											<u> </u>		-	-
D. Fecal Coliform	x		3.0)						1	MPN/100	ml			_	
E. Fluoride (16984-48-8)		x														
F. Nitrate - Nitrate <i>(as N)</i>	x		1.6	6	687					1	ma/L	(а			
MO 780-1514 (06-13)			-								,,		5			

	2. MA	RK "X"		3. EFFLUENT						4. UN	IITS	5. INTAKE (optional)		
1. POLLUTANT AND CAS NUMBER (if available)	A. BELIEVED	B. BELIEVED	A. MAXIMUM DAI	LY VALUE	B. MAXIMUM 30 (if availab	DAY VALUE	C. LONG TERM AV (if availab	/RG. VALUE	D. NO. OF	A. CONCEN-		A. CONCEN-		B NO DE
	PRESENT	ABSENT	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	ANALYSES	TRATION	B. MASS	(1) CONCENTRATION	(2) MASS	ANALYSES
G. Nitrogen, Total Organic <i>(as N)</i>	x		<1	<429					1	mg/L	g			
H. Oil and Grease	x		5	2146	5	2146	5	2146	4	mg/L	kg			
I. Phosphorus (as P), Total (7723-14-0)		x												
J. Sulfate <i>(as SO⁴)</i> (14808-79-8)		x												
K. Sulfide (as S)		x												
L. Sulfite (as SO ³) (14265-45-3)		x												
M. Surfactants		x												
N. Aluminum, Total (7429-90-5)		x												
O. Barium, Total (7440-39-3)		x												1
P. Boron, Total (7440-42-8)		x												
Q. Cobalt, Total (7440-48-4)		x												
R. Iron, Total (7439-89-6)	x		6200	2696.7	6200	2696.7	2117.5	917.8	4	ug/L	g			
S. Magnesium, Total (7439-95-4)		x												
T. Molybdenum, Total (7439-98-7)		x												
U. Manganese, Total (7439-96-5)		x												
V. Tin, Total (7440-31-5)		x												
W. Titanium, Total (7440-32-6)		x												

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	2. MA	RK "X"		3. EFFLUENT					4. UN	4. UNITS		5. INTAKE (optional)		
1. POLLUTANT AND CAS NUMBER (if available)	A. BELIEVED	B. BELIEVED	A. MAXIMUM DAI	LY VALUE	B. MAXIMUM 30 (if availab	DAY VALUE	C. LONG TERM AV (if availab	/RG. VALUE	D. NO. OF	A. CONCEN-	B MARS	A. LONG TERM AN	RG. VALUE	B. NO. OF
	PRESENT	ABSENT	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	(1) CONCENTRATION	(2) MASS	ANALYSES	TRATION	D. MA33	(1) CONCENTRATION	(2) MASS	ANALYSES
METALS, AND TOTAL PHEN	OLS													I
1M. Antimony, Total (7440-36-9)		x												
2M. Arsenic, Total (7440-38-2)		x												
3M. Beryllium, Total (7440-41-7)		x												
4M. Cadmium, Total (7440-43-9)		x												
5M. Chromium III (16065-83-1)		x												
6M. Chromium VI (18540-29-9)		x												
7M. Copper, Total (7440-50-8)		x												
8M. Lead, Total (7439-92-1)		x												
9M. Mercury, Total (7439-97-6)		х												
10M. Nickel, Total (7440-02-0)		x												
11M. Selenium, Total (7782-49-2)		x												
12M. Silver, Total (7440-22-4)		x												
13M. Thallium, Total (7440-28-0)		x												
14M. Zinc, Total (7440-66-6)		x												
15M. Cyanide, Amenable to Chlorination		x												
16M. Phenols, Total		х												
RADIOACTIVITY														
(1) Alpha Total		х												
(2) Beta Total		х												
(3) Radium Total		х												
(4) Radium 226 Total		х												
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Figure 1: Palmyra Terminal Topographic Map

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Figure 2: Simplified Water/Non-Contact Cooling Water Flow Schematic

FIGURE 2: Water/Wastewater Flow Schematic

CF Industries Sales, LLC – Palmyra Terminal NPDES Permit #: MO-0001821



Note: Discharge values represent estimated maximum daily discharges.

Safety Data Sheet: Garratt-Callahan Formula 3338



SAFETY DATA SHEET

SECTION 1 - PRODUCT IDENTIFICATION

PRODUCT NAME: PRODUCT USE: RESTRICTIONS ON USE:

UN NUMBER: PROPER SHIPPING NAME:

MANUFACTURER'S NAME: ADDRESS: EMERGENCY PHONE:

BUSINESS PHONE: SDS NUMBER: DATE OF REVISION:

SECTION 2 - HAZARDS IDENTIFICATION

SIGNAL WORD: DANGER

HAZARD STATEMENT:

H290: May be corrosive to metals. 1 H314: Causes severe skin burns and eye damage. H411: Toxic to aquatic life with long lasting effects. 2

PRECAUTIONARY STATEMENTS: (PREVENTION)

P101: If medical advice is needed, have product container or label at hand.

P102: Keep out of reach of children.

P103: Read label before use.

- P234: Keep only in original packaging
- P260: Do not breathe dust/fume/gas/mist/vapours/spray.
- P264: Wash all exposed skin/hair thoroughly after handling.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

HAZARDOUS MATERIAL IDENTIFICATION SYSTEM



FORMULA 3338 BIOCIDE Refer to label, available technical information, and other appropriate sections of this SDS. UN3266 UN3266, CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (HALOGENATED COMPLEX, SODIUM HYDROXIDE), 8, PGIII Garratt-Callahan Company 50 Ingold Road, Burlingame, CA 94010-2206 North America: CHEMTREC: 1-800-424-9300 Outside North America: +1-703-527-3887 Product Information: 650-697-5811 SD3338 9/18/2017

NFPA RATING

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS							
Hazardous Ingredients	CAS#	EC#	ICSC#	<u>WT %</u>			
HALOGENATED COMPLEX	PROPRIETARY	NA	NA	18			
SODIUM HYDROXIDE	1310-73-2	215-185-5	0360	<20			

SECTION 4 - FIRST AID MEASURES

Exposed individuals must be taken for medical attention if any adverse effect occurs. Take copy of label and SDS to health professional with contaminated individual.

DANGER: May be corrosive to metals. Causes severe skin burns and eye damage. Toxic to aquatic life with long lasting effects. Also refer to Section 11 for symptoms, effects, and likely routes of exposure for this product.

TARGET ORGANS:

ACUTE: Skin, eyes, respiratory system, central nervous system. CHRONIC: Lung, liver, skin, kidneys.

SKIN EXPOSURE: P303+P361+P353: IF ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower. IF ON SKIN: Wash with soap and water. If this product contaminates the skin, begin decontamination with running water and soap. Minimum flushing time is for 15 minutes. Remove exposed or contaminated clothing, taking care not to contaminate the eyes. P363: Wash contaminated clothing before reuse. P310: Immediately call a POISON CENTER or doctor/physician..

EYE EXPOSURE: P305+P351+P338: IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing. If vapors, mists, splashes or sprays are generated by this product and enter the eyes, open the exposed individual's eyes while under gently running water. Use sufficient force to open the eyelids. Have the exposed individual "roll" their eyes. Minimum flushing time is for 15 minutes. P310: Immediately call a POISON CENTER or doctor/physician.

INHALATION: P304+P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. If vapors, mists, dust or sprays generated by this product are inhaled, remove exposed individual to fresh air. P310: Immediately call a POISON CENTER or doctor/physician..

INGESTION: P301+P330+P331: IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. Routine use of this product is not expected to cause a situation which could lead to ingestion. Never induce vomiting or give diluents (milk or water) by mouth to someone who is unconscious, having convulsions, or unable to swallow. P310: Immediately call a POISON CENTER or doctor/physician..

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Skin and respiratory disorders, as well as conditions involving the "Target Organs" (see Section 2, Hazards Identification) which may be aggravated by prolonged exposures to this product. Exposed individual must seek immediate medical attention if any adverse effect occurs.

NOTES TO PHYSICIAN: Treat symptoms as demonstrated by signs and distress in the patient.

SECTION 5 - FIRE FIGHTING MEASURES

SUITABLE (AND UNSUITABLE) EXTINGUISHING MATERIALS: SPECIFIC HAZARDS ARISING FROM THE CHEMICAL:	Use media appropriate for the surrounding fire. Avoid breathing fumes, hazardous combustion products include bromine and chlorine.
SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIREFIGHTERS:	Wear self-contained breathing appartus (pressure-demand NIOSH approved or equivalanet) and full protective gear. Use water spray to cool containers exposed to fire. Minimize exposure. DO NOT breathe fumes. Contain run-off.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT, ENVIRONMENTAL PRECAUTIONS AND EMERGENCY PROCEDURES.

WARNING: Any container expansion or rounding indicates pressure build-up. Use extreme caution. When opening, release pressure slowly through opening.

SPILL AND LEAK RESPONSE: Uncontrolled releases should be responded to by appropriately trained personnel using preplanned procedures. Proper protective equipment should be used, refer to Section 8 - exposure controls. P391: Collect spillage. P390: Absorb spillage to prevent material-damage. P273: Avoid release to the environment.

Small Spill: Mop up, or absorb with an inert dry material and place in an appropriate waste disposal container.

Large Spill: Restrict access to the area. Provide adequate protective equipment and ventilation. Stop leak if without risk. Remove chemicals which can react with the spilled material. Prevent entry into surface waters, sewers, basements or confined areas, dike if needed. Ensure that exposure to product is not at a concentration exceeding regulatory limits. Decontaminate the area thoroughly. Decontaminate all response equipment with soapy water before returning to service. Place all spill residue in a suitable container and seal.

SECTION 7 - HANDLING AND STORAGE

STORAGE AND HANDLING PRACTICES: Avoid freezing, excessive heat or exposure to light, especially direct sunlight. If heating is necessary to prevent freezing, care must be taken to prevent overheating. Precautions should be taken to ensure that the average product temperature is maintained below 43°C. Temperature monitoring is recommended. At elevated temperatures, self-heating can lead to vigorous gas generation and over-pressurization of storage containers if appropriate controls are not in place. Avoid exposure of this product to incompatible materials/chemicals (see Stability and Reactivity section). Use of incompatible materials can promote the exothermic decomposition of the product. In extreme cases, this could result in vigorous gas formation and over-pressurization of the storage container. P273: Avoid release to the environment.

STORAGE CONTAINER: Vented and opaque containers: As the product ages, activity is gradually lost and pressure can build-up in the headspace (nitrogen); therefore, the product should be stored in vented containers. Product should also be stored in opaque containers to prevent exposure to light. To maximize product shelf life, store the product in an opaque container, in a cool, dry, well-ventilated area. All employees who handle this material should be trained to handle it safely. Open containers slowly on a stable surface. Containers of this product must be properly labeled. Storage areas of this product should be clearly identified, well-illuminated, clear of obstruction and accessible only to trained and authorized personnel. Store containers in a cool, dry location, away from direct sunlight, at temperatures between 50°F (10°C) - 100°F (37°C). Keep container tightly closed when not in use. P405: Store locked up. P234: Keep only in original packaging. P406: Store in corrosion resistant container with a resistant inner liner. Vented and opaque containers: As the product ages, activity is gradually lost and pressure can build-up in the headspace (nitrogen); therefore, the product should be stored in vented containers. Product shold also be stored in opaque containers to prevent exposure to light. To maximize product shelf life, store the product in an opaque container, in a cool, dry, well-ventilated area.

SECTION 8 - EXPOSURE CONTROLS - PERSONAL PROTECTION

VENTILATION AND ENGINEERING CONTROLS: Use with adequate ventilation. Eyewash/safety shower station is recommended to be available near where this product is used/stored.

EXPOSURE LIMITS/GUIDELIN	ES:	EXPOSURE LIMITS IN AIR					
CHEMICAL NAME	CAS#	ACG TWA	IH TLV STEL	OSHA PEL TWA	OTHER		
HALOGENATED COMPLEX	PROPRIETARY	NE	NE	NE	NA		
SODIUM HYDROXIDE	1310-73-2	NE	2 mg/m³ (Ceiling)	2 mg/m³ (Ceiling)	NIOSH C 2 mg/m³ REL		

NE = Not Established

ť

INGESTION:	Do not eat, drink, smoke, or apply cosmetics when handling this product. Wash all exposed skin/hair thoroughly after handling.
RESPIRATORY PROTECTION:	P260: Do not breathe dust/fume/gas/mist/vapours/spray. Maintain airborne contaminant concentrations below guidelines listed above, if applicable. Air-purifying respirators with dust/mist/fume/spray filters are recommended if operations may produce dusts, mists or sprays from this product.
EYE PROTECTION:	P280: Wear protective gloves/protective clothing/eye protection/face protection. A face shield may also be necessary if splasing is possible. P264: Wash thoroughly after handling.
SKIN PROTECTION:	P264: Wash all exposed skin/hair thoroughly after handling. P280: Wear protective gloves/protective clothing/eye protection/face protection. Use chemically-resistant gloves when handling this product. Use body protection appropriate for task (e.g. lab coat, overalls).

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE and COLOR:	Yellow to orange liquid	VAPOR PRESSURE, mm Hg @ 20°C:	19 mm Hg (25°C)
ODOR :	Mild	VAPOR DENSITY (Air=1):	Not established
ODOR THRESHOLD:	Not established	RELATIVE DENSITY (water=1):	1.29 - 1.37 (25°C)
pH:	12.4 - 14.0	SOLUBILITY IN WATER:	Miscible
MELTING/FREEZING POINT:	~0° C/32° F	PARTITION COEFFICIENT(n-octanol/water): Not established
BOILING POINT:	106° C/223° F	AUTOIGNITION TEMPERATURE:	Not established
FLASHPOINT:	Not established	DECOMPOSITION TEMPERATURE:	Not established
EVAPORATION RATE (n-BuAc=1):	Not established	VISCOSITY:	Kinematic 2cSt (25°C)
FLAMMABILITY (SOLID/GAS):	Not applicable	VOLATILE ORGANIC COMPOUNDS (%):	None
FLAMMABLE LIMITS (in air by volume, %)	Not established		

SECTION 10 - STABILITY AND REACTIVITY

REACTIVITY:	Product is not reactive under standard ambient temperature and pressure.
POSSIBILITY OF HAZARDOUS REACTIONS:	None under normal processing
CONDITIONS TO AVOID:	Protect from light. Extremes of temperature and direct sunlight. Keep away from heat. Freezing.
INCOMPATIBLE MATERIALS:	This product is strongly basic and an oxidizing agent. Avoid contact with alcohols, aldehydes, strong reducing agents, strong oxidizers, acids, ammonia-containing products, and common metals such as steel, aluminum, iron and copper. Use of incompatible materials can promote the exothermic decomposition of the product.
HAZARDOUS DECOMPOSITION PRODUCTS:	Bromine and chlorine

SECTION 11 - TOXICOLOGICAL INFORMATION

TOXICOLOGICAL EFFECTS: LIKELY ROUTES OF EXPOSURE RELATED SYMPTOMS	No data available for this product. : Skin, eye contact and inhalation. : Inhalation: Not an expected route of exposure. Eye contact: Causes severe burns. Skin Contact: Causes severe burns. Ingestion: Not expected to be acutely toxic
DELAYED/IMMEDIATE/CHRONIC EFFECTS FROM SHORT AND	
LONG TERM EXPOSURES:	Skin Corrosion/irritation: Data obtained from tests on used product. Skin irritation. (rabbit). (4hr): Corrosive to skin. Causes burns. Serious eye damage/eye irritation: Corrosive. Risk of serious damage to eyes.
	Respiratory Irritation: No data availabe.
	Product Information
	ATEmix (oral) 52308 mg/kg
/	ATEmix (dermal) 30785 mg/kg
/	ATEmix (inhalation-dust/mist) 4.5 mg/L
1	-D50 Oral: Rat Oral LD50; 2491 mg/kg D50 Dermal: Rat Dermal I D50; > 2000 mg/kg
	nhalation LC50: LC50/inhalation/4h/rat: > 2.09 mg/L (aerosol) Highest concentration Component Information: Sodium hydroxide I310-73-2
F	Rabbit Dermal LD50: 1350 mg/kg

CARCINOGENICITY: None of the components of this product are listed by the NTP, IARC, or regulated by OSHA as carcinogens.

SECTION 12 - ECOLOGICAL INFORMATION

ALL WORK PRACTICES MUST BE AIMED AT ELIMINATING ENVIRONMENTAL CONTAMINATION.

ECOTOXICITY: Toxic to marine life with long lasting effects. 3.8 mg whole material/L; LC50/96-Hour; Bluegill sunfish 4.8 mg whole material/L; LC50/48-Hour; Waterflea Daphnia Magna 2.6 mg whole material/L; IC50/96-Hour; Unicellular Green Alga, Selenastrum capricornutum Component Sodium hydroxide (CAS#: 1310-73-2) Freshwater FishLC50/96h 189 mg/L

PERSISTENCE AND DEGRADABILITY: No data available for this product. BIOLOGICAL ACCUMULATION POTENTIAL: No data available for this product. MOBILITY IN SOIL: No data available for this product. OTHER ADVERSE EFFECTS (i.e., hazardous to the ozone layer): No data available for this product.

Environmental Hazards:

This pesticide is toxic to fish and aquatic organisms. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or public waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA. Apply this pesticide only as specified on the label.

BIOLOGICAL EXPOSURE INDICES: Currently, Biological Exposure Indices (BEIs) have not been determined for the components of this product.

SECTION 13 - DISPOSAL CONSIDERATIONS

DISPOSAL: Thoroughly drain/empty containers and offer for recycling. Refer to Section 8 for exposure controls - personal protection. P501: Dispose of contents/container in accordance with local/regional/national/international regulations.

SECTION 14 - TRANSPORTATION INFORMATION

PROPER SHIPPING NAME

- DOT: UN 3266, CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (HALOGENATED COMPLEX, SODIUM HYDROXIDE), 8, PGIII Emergency response guidebook, guide no.: 154 Passenger Aircraft: 5L Cargo Aircraft only: 60L
- IMDG/IMO: UN 3266, CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (HALOGENATED COMPLEX, SODIUM HYDROXIDE), 8, PGIII
 IATA/ICAO: UN3266, CORROSIVE LIQUID, BASIC, INORGANIC, N.O.S. (HALOGENATED COMPLEX, SODIUM HYDROXIDE), 8, PGIII

ENVIRONMENTAL HAZARDS (i.e., MARINE POLLUTANT): None known.

TRANSPORT IN BULK (according to annex II marpol 73/78 and the IBC code): Not applicable.. SPECIAL PRECAUTIONS FOR USER: None known.

PRODUCT REQUIRES CORROSIVE LABEL

SECTION 15 - REGULATORY INFORMATION

United States and International Regulations

United States Regulations: U.S. SARA REPORTING REQUIREMENTS: The components of this product are subject to the reporting as listed below, requirements of Sections 302, 304, and 313 of Title of the Superfund Amendments and Reauthorization Act:

CHEMICAL NAME

HALOGENATED COMPLEX	SARA 302(40 CFR 355, Appendix A) - NO SARA 304 (40 CFR Table 302.4) - NO SARA 313 (40 CFR 372.65) - NO
SODIUM HYDROXIDE	SARA 302(40 CFR 355, Appendix A) - NO SARA 304 (40 CFR Table 302.4) - YES SARA 313 (40 CFR 372.65) - NO



U.S. Regulations

U.S. SARA THRESHOLD PLANNING QUANTITY: There are no specific Threshold Planning Quantities for the components of this product.

The default Federal SDS submission and inventory requirement filing threshold of 10,000 lbs (4,540 kg) therefore applies, per 40 CFR 370.20.

U.S. CERCLA REPORTABLE QUANTITY (RQ): Sodium Hydroxide (CAS# 1310-73-2):1000 Lbs. (454 kg).

U.S. TSCA INVENTORY STATUS: The components of this product are listed on the TSCA Inventory.

SARA Title 311/312, Hazard Category: Acute Health: YES; Chronic: NO; Fire: NO; Reactive: NO; Sudden Release of Pressure: NO

FIFRA Information:

This chemical is a pesticide product registered by the Environmental Protection Agency and is subject to certain labeling requirements under federal pesticide law. These requirements differ from the classification criteria and hazard information required for safety data sheets, and for workplace labels of non-pesticide chemicals. Following is the hazard information as required on the pesticide label:

DANGER: Corrosive. Causes irreversible eye damage and skin burns. Do not get in eyes, on skin or on clothing. Wear protective eyewear (chemical goggles or face shield), protective clothing and rubber gloves resistant to chemical permeation when handling this product. Harmful if swallowed, or absorbed through the skin. Wash thoroughly with soap and water after handling and before eating, drinking, chewing gum, using tobacco or using the toilet. Remove and wash contaminated clothing separately before reuse.

CALIFORNIA SAFE DRINKING WATER AND TOXIC ENFORCEMENT ACT (PROPOSITION 65): No component of this product is on the Proposition 65 List.

International Regulations

CANADIAN REGULATIONS:

CANADIAN DSL/NDSL INVENTORY STATUS: The components of this product are on the DSL or NDSL Inventories CANADIAN WHMIS CLASSIFICATION: Product contains components listed by WHMIS. Sodium Hydroxide (CAS# 1310-73-2):E

SECTION 16 - OTHER INFORMATION

PREPARED BY: GARRATT CALLAHAN

DATE OF REVISION: 9/18/2017 Supercedes: 7/15/2016

Formula 3338 is EPA-registered; with EPA Reg. No. 3377-55-8540. Refer to the approved label for details. This product contains SODIUM HYDROXIDE, CAS. NO. 1310-73-2, regulated in Massachusetts, New Jersey and Pennsylvania.

Although reasonable care has been taken in the preparation of this document, we extend no warranties and make no representations as to the accuracy or completeness of the information contained herein, and assume no responsibility regarding the suitability of this information for the user's intended purpose or for the consequences of its use. Each individual should make a determination as to the suitability of the information for their particular purpose.

Safety Data Sheet: Garratt-Callahan Formula 2530-LT



SAFETY DATA SHEET

SECTION 1 - PRODUCT IDENTIFICATION

PRODUCT NAME: PRODUCT USE: RESTRICTIONS ON USE:

UN NUMBER: PROPER SHIPPING NAME: MANUFACTURER'S NAME: ADDRESS: EMERGENCY PHONE:

BUSINESS PHONE: SDS NUMBER: DATE OF REVISION:

SECTION 2 - HAZARDS IDENTIFICATION

SIGNAL WORD: WARNING

HAZARD STATEMENT:

H302: Harmful if swallowed. 4 H315: Causes skin irritation. 2 H320: Causes eye irritation. 2B H333: May be harmful if inhaled. 5

PRECAUTIONARY STATEMENTS: (PREVENTION)

P101: If medical advice is needed, have product container or label at hand.

P102: Keep out of reach of children.

P103: Read label before use.

P264: Wash all exposed skin/hair thoroughly after handling.

P270: Do not eat, drink or smoke when using this product.

P280. Wear protective gloves/protective clothing/eye protection/face protection.

HAZARDOUS MATERIAL IDENTIFICATION SYSTEM



Hazard Scale 0=Minimal 1=Slight 2=Moderate 3=Serious 4=Severe *=Chronic hazard HEALTH

SPECIAL HAZARD



FORMULA 2530-LT

NOT REGULATED

NOT REGULATED

SD2530LT

1/24/2018

Garratt-Callahan Company

COOLING WATER TREATMENT

appropriate sections of this SDS.

Product Information: 650-697-5811

50 Ingold Road, Burlingame, CA 94010-2206

North America: CHEMTREC: 1-800-424-9300 Outside North America: +1-703-527-3887

Refer to label, available technical information, and other

SECTION 3 - COMPOSITION/INFORMAT	ION ON INGREDIENTS				
Hazardous Ingredients	CAS#	<u>EC#</u>	ICSC#	<u>WT %</u>	
PHOSPHONOBUTANE TRICARBOXYLIC ACID	37971-36-1	253-733-5	NE	5 - 10	
ACRYLIC TERPOLYMER	PROPRIETARY	N/A	N/A	< 5	
BENZOTRIAZOLE	95-14-7	202-394-1	1091	5 - 10	
POLYMALEIC ACID	26099-09-2	N/A	N/A	3	

SECTION 4 - FIRST AID MEASURES

Exposed individuals must be taken for medical attention if any adverse effect occurs. Take a copy of this SDS to the health professional with the individual.

WARNING: May be harmful if swallowed. Causes skin irritation. Causes serious eye irritation. May be harmful if inhaled. Also refer to Section 11 for symptoms, effects, and likely routes of exposure for this product.

TARGET ORGANS:

ACUTE: Irritation of skin, eyes, respiratory and gastrointestinal systems. CHRONIC: Irritation of skin, eyes, respiratory and gastrointestinal systems.

SKIN EXPOSURE: P302+P352: IF ON SKIN: Wash with soap and water. If this product contaminates the skin, begin decontamination with running water and soap. Minimum flushing time is for 15 minutes. P362+P364: Take off contaminated clothing and wash before reuse. P332+P313: If skin irritation occurs: Get medical advice/attention.

EYE EXPOSURE: P305+P351+P338: IF IN EYES: Rinse continuously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing. Use sufficient force to open the eyelids. Have the exposed individual "roll" their eyes. Minimum flushing time is for 15 minutes. P337+P313: If eye irritation persists get medical advice/attention.

INHALATION: P304+P312: IF INHALED: Call a POISON CENTER or doctor/physician if you feel unwell. If vapors, mists, or sprays generated by this product are inhaled, remove exposed individual to fresh air. Remove or cover gross contamination to avoid exposure to rescuers.

INGESTION: P301+P312: IF SWALLOWED: Call a POISON CENTER or doctor/physician if you feel unwell. Never induce vomiting or give diluents (milk or water) by mouth to someone who is unconscious, having convulsions, or unable to swallow.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Skin and respiratory disorders, as well as conditions involving the "Target Organs" (see above) which may be aggravated by prolonged exposures to this product. Exposed individual must seek immediate medical attention if any adverse effect occurs.

NOTES TO PHYSICIAN: Treat symptoms as demonstrated by signs and distress in the patient.

SECTION 5 - FIRE FIGHTING MEASURES

SUITABLE (AND UNSUITABLE) EXTINGUISHING MATERIALS:	Product is non-flammable. Use water spray, dry chemical, CO2 or foam. Use media appropriate for surrounding fire.
SPECIFIC HAZARDS ARISING FROM THE CHEMICAL:	No special hazards.
SPECIAL PROTECTIVE EQUIPMENT AND PRECAUTIONS FOR FIREFIGHTERS:	Firefighters should wear fully protective clothing (chemical impermeable, fully encapsulated suit) and positive pressure self-contained breathing apparatus. Do not release run off from fire control methods to sewer or waterways.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT, ENVIRONMENTAL PRECAUTIONS AND EMERGENCY PROCEDURES.

WARNING: Any drum expansion or rounding indicates pressure build-up. Use extreme caution. When opening, release pressure slowly through opening.

SPILL AND LEAK RESPONSE: Uncontrolled releases should be responded to by appropriately trained personnel using preplanned procedures. Proper protective equip ment should be used, refer to Section 8 - exposure controls.

Small Spill: Mop up, or absorb with an inert dry material and place in an appropriate waste disposal container.

Large Spill: Restrict access to the area. Provide adequate protective equipment and ventilation. Stop leak if without risk. Remove chemicals which can react with the spilled material. Absorb with DRY inert non-combustible material. Do not get water inside container. Do not touch spilled material. Use water spray curtain to divert vapor drift. Use water spray to reduce vapors. Prevent entry into sewers, basements or confined areas, dike if needed. Ensure that the product is not at a concentration level above exposure limits. Decontaminate the area thoroughly. Decontaminate all response equipment with scapy water before returning to service. Place all spill residue in a suitable container and seal. P391: Collect spillage.

SECTION 7 - HANDLING AND STORAGE

PRECAUTIONS FOR SAFE HANDLING: As with all chemicals, avoid getting this product ON YOU or IN YOU. Wash thoroughly after handling this product. Do not eat, drink, smoke, or apply cosmetics while handling this product. Avoid breathing vapors or mists generated by this product. Use in a well-ventilated location. Remove contaminated clothing immediately. Refer to Section 8 for exposure controls.

CONDITIONS FOR SAFE STORAGE: All employees who handle this material should be trained to handle it safely. Open containers slowly on a stable surface. Containers of this product must be properly labeled. Storage areas of this product should be clearly identified, well-illuminated, clear of obstruction and accessible only to trained and authorized personnel. Store containers in a cool, dry location, away from direct sunlight, at temperatures between 50°F - 100°F. Keep container tightly closed when not in use. Refer to Section 10 for incompatibilities.

SECTION 8 - EXPOSURE CONTROLS - PERSONAL PROTECTION

VENTILATION AND ENGINEERING CONTROLS: Use with adequate ventilation. Eyewash/safety shower station is recommended to be available near where this product is used/stored.

EXPOSURE LIMITS/GUIDELINES:		EXPOSURE LIMITS IN AIR			
CHEMICAL NAME	<u>CAS#</u>	ACGI TWA	H TLV STEL	OSHA PEL TWA	<u>OTHER</u>
PHOSPHONOBUTANE TRICARBOXYLIC ACID	37971-36-1	NE	NE	NE	NONE
ACRYLIC TERPOLYMER	PROPRIETARY	NE	NE	NE	NONE
BENZÓTRIAZOLE	95-14-7	NE	NE	NE	NONE
POLYMALEIC ACID	26099-09-2	NE	NE	NE	NONE

NE = Not Established

INGESTION:	Do not ingest. Wash hands after handling.
RESPIRATORY PROTECTION:	P260: Do not breathe dust/fume/gas/mist/vapours/spray. Maintain airborne contaminant concentrations below guidelines listed above, if applicable. Air-purifying respirators with dust/mist/fume/spray filters are recommended if operations may produce dusts, mists or sprays from this product.
EYE PROTECTION:	Safety glasses with side shields or chemical safety goggles. A face shield may also be necessary for splash protection.
SKIN PROTECTION:	P264: Wash all exposed skin/hair thoroughly after handling. P280: Wear protective gloves/protective clothing/eye protection/face protection. Use chemically-resistant gloves and skin protection, when handling this product. Use body protection appropriate for task (e.g., lab coat, overalls).

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE and COLOR:	Clear yellow liquid	VAPOR PRESSURE, mm Hg @ 20°C:	Not established
ODOR :	Slight organic	VAPOR DENSITY (Air=1):	Not established
ODOR THRESHOLD:	Not established	RELATIVE DENSITY@20°C (water=1):	1.06 - 1.08
pH:	1.5 - 2.5	SOLUBILITY IN WATER:	Complete
MELTING/FREEZING POINT:	NA	PARTITION COEFFICIENT(n-octanol/water):	Not established
BOILING POINT:	>212°F (100°C)	AUTOIGNITION TEMPERATURE:	Not applicable
FLASHPOINT:	Non-flammable	DECOMPOSITION TEMPERATURE:	Not established
EVAPORATION RATE (n-BuAc=1):	< 1	VISCOSITY:	Not established
FLAMMABILITY (SOLID/GAS):	Not applicable	VOLATILE ORGANIC COMPOUNDS (%):	None
FLAMMABLE LIMITS (in air by volume, %):	Not applicable		

SECTION 10 - STABILITY AND REACTIVITY

REACTIVITY:	Not established.
STABILITY:	Stable under normal condition of use and storage.
POSSIBILITY OF HAZARDOUS	
REACTIONS:	See incompatible materials.
CONDITIONS TO AVOID:	See incompatible materials.
INCOMPATIBLE MATERIALS:	Reactive metals.
HAZARDOUS DECOMPOSITION	
PRODUCTS:	When heated to decomposition product may emit toxic fumes of oxides of carbon, nitrogen and phosphorous.

SECTION 11 - TOXICOLOGICAL INFORMATION

TOXICOLOGICAL EFFECTS: No data available for this product. LIKELY ROUTES OF EXPOSURE: Skin, eye contact and inhalation. RELATED SYMPTOMS: Skin, eye, respiratory and gastrointestinal irritation. May be harmful if swallowed. DELAYED/IMMEDIATE/CHRONIC EFFECTS FROM SHORT AND LONG TERM EXPOSURES: Skin, eye, respiratory and gastrointestinal irritation. May be harmful if swallowed. NUMERICAL MEASURES OF TOXICITY: Not established for this product.

CARCINOGENICITY: None of the components of this product are listed by the NTP, IARC, or regulated by OSHA AS carcinogens.

SECTION 12 - ECOLOGICAL INFORMATION

ALL WORK PRACTICES MUST BE AIMED AT ELIMINATING ENVIRONMENTAL CONTAMINATION. ECOTOXICITY: PERSISTENCE AND DEGRADABILITY: No data available for this product. Fish: No data available for this product. Algae: No data available for this product. Daphnia: No data available for this product. BIOLOGICAL ACCUMULATION POTENTIAL: No data available for this product. MOBILITY IN SOIL: No data available for this product. OTHER ADVERSE EFFECTS (i.e., hazardous to the ozone layer): No data available for this product.

BIOLOGICAL EXPOSURE INDICES: Currently, Biological Exposure Indices (BEIs) have not been determined for the components of this product

SECTION 13 - DISPOSAL CONSIDERATIONS

DISPOSAL: Thoroughly drain/empty containers and offer for recycling. Refer to Section 8 for exposure controls - personal protection. P501: Dispose of contents/container in accordance with local/regional/national/international regulations.

PROPER SHIPPING NAME

DOT: NOT REGULATED IMDG/IMO: NOT REGULATED IATA/ICAO: NOT REGULATED

> ENVIRONMENTAL HAZARDS (i.e., MARINE POLLUTANT): None known.

TRANSPORT IN BULK (according to annex II marpol 73/78 and the IBC code): Not applicable. SPECIAL PRECAUTIONS FOR USER: None known.

SECTION 15 - REGULATORY INFORMATION

United States and International Regulations

United States Regulations: U.S. SARA REPORTING REQUIREMENTS: The components of this product are subject to the reporting as listed below, requirements of Sections 302, 304, and 313 of Title of the Superfund Amendments and Reauthorization Act:

CHEMICAL NAME

PHOSPHONOBUTANE TRICARBOXYLIC ACID	SARA 302 (40 CFR 355, Appendix A) - NO SARA 304 (40 CFR Table 302.4) - NO SARA 313 (40 CFR 372.65) - NO
ACRYLIC TERPOLYMER	SARA 302 (40 CFR 355, Appendix A) - NO SARA 304 (40 CFR Table 302.4) - NO SARA 313 (40 CFR 372.65) - NO
BENZOTRIAZOLE	SARA 302 (40 CFR 355, Appendix A) - NO SARA 304 (40 CFR Table 302.4) - NO SARA 313 (40 CFR 372.65) - NO
POLYMALEIC ACID	SARA 302 (40 CFR 355, Appendix A) - NO SARA 304 (40 CFR Table 302.4) - NO SARA 313 (40 CFR 372 65) - NO

U.S. Regulations

U.S. SARA THRESHOLD PLANNING QUANTITY: There are no specific Threshold Planning Quantities for the components of this product. The default Federal SDS submission and inventory requirement filing threshold of 10,000 lbs (4,540 kg) therefore applies, per 40 CFR 370.20.

U.S. CERCLA REPORTABLE QUANTITY (RQ):

U.S. TSCA INVENTORY STATUS: The components of this product are listed on the TSCA Inventory, or are exempt. SARA Title 311/312, Hazard Category: Acute Health: YES; Chronic: NO; Fire: NO; Reactive: NO; Sudden Release of Pressure: NO

California safe drinking water and toxic enforcement act (proposition 65): None.

International Regulations

CANADIAN REGULATIONS: CANADIAN DSL/NDSL INVENTORY STATUS: The components of this product are on the DSL or NDSL Inventories or are exempt from listing. CANADIAN WHMIS CLASSIFICATION: None.

SECTION 16 - OTHER INFORMATION

PREPARED BY: GARRATT CALLAHAN

DATE OF REVISION: 1/24/2018 Supercedes: 10/15/2015

Although reasonable care has been taken in the preparation of this document, we extend no warranties and make no representations as to the accuracy or completeness of the information contained herein, and assume no responsibility regarding the suitability of this information for the user's intended purpose or for the consequences of its use. Each individual should make a determination as to the suitability of the information for their particular purpose.

Safety Data Sheet: Brenntag Mid-South, Inc. Sulfuric Acid (70%)



BRENNTAG MID SOUTH, INC. 1405 Highway 136 West Henderson, Kentucky 42420-0020 Tel. (270) 830-1200 • Fax (270) 826-1486

CERTIFICATE OF ANALYSIS

Sulfuric Acid 70% by Weight

CUSTOMER:	DATE ANALYZED: 4-20-16
	DATE SHIPPED:
	LOT NUMBER: 211640246117001

PARAMETERS	ANALYSIS	SPECIFICATIONS
Specific Gravity @ 60°F	1.607	1.604 to 1.627
Sulfuric Acid, Wt %	69.55	$70 \pm 1\%$

Analyst: S. Overall Approved: Eris Taylor

cc: With Shipment Lab File

Direct questions concerning certification of this product to personnel at the location marked below.

Henderson, KY 270-830-1258
Memphis, TN 901-775-2100
Tampa, FL 813-247-4840

Form Approval:

James Clements

Form Approval Date: September 25, 2015

"All information provided is believed to be accurate and complete. The data provided is representative of the product quality on the date of analysis for the lot number indicated. This certificate of analysis may not include all of the constituents of the product. Persons using this information should make their own determination regarding its suitability for their particular application. This certificate of analysis shall not in any way limit or preclude the operation and effect of the applicable terms and conditions of sale."

C:\RD1\WORD\COA\SULFURIC 70%.DOC

P TORTANT: All information provided is believed to be accurate and complete. The data provided is representative of the product quality date of analysis for the lot number indicated. This certificate of analysis may not include all of the constituents of the product. Persons using this information should make their own determination regarding its suitability for their particular application. This certificate of analysis shall not in any way limit or preclude the operation and effect of the applicable terms and conditions of sale. BRENNTAG MID-SOUTH, INC.

SAFETY CONTACT

CF INDUSTRIES INC

2838 COUNTY ROAD 359

PALMYRA

MO

63461

1397771

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BRENNTAG

Product #: 211640 From: BRENNTAG MID-SOUTH To: CFINDUSTRIES INC Wednesday, May 11, 2016

SAFETY DATA SHEET

1. Identification

Product identifier	SULFURIC ACID 70%	
Other means of identification	None.	
Recommended use	ALL PROPER AND LEGAL PURPOSES	
Recommended restrictions	None known.	,
Manufacturer/Importer/Supplier	Distributor information	
Manufacturer		
Company name Address	Brenntag Mid-South, Inc. 1405 Highway 136, West Henderson, KY 42420	
Telephone	270-830-1222	
E-mail	Not available.	
Emergency phone number	800-424-9300 CHEMT	REC
2. Hazard(s) identification		
Physical hazards	Not classified.	
Health hazards	Acute toxicity, inhalation	Category 2
	Skin corrosion/irritation	Category 1
	Serious eve damage/eve irritation	
Environmental hazards	Not classified.	Oalegoly 1
OSHA defined hazards	Not classified.	
Label elements		
Signal word	Danger	
Hazard statement	Causes severe skin burns and eye dama	00. Causes serious eve damage. Fatal if inhaled
Precautionary statement		b - Fanne Concercience of continuinger Fanalistic Hillinger.
Prevention	Do not breathe vapor. Wash thoroughly a area. Wear protective gloves/protective o protection.	ifter handling. Use only outdoors or in a well-ventilated lothing/eye protection/face protection. Wear respiratory
Response	If swallowed: Rinse mouth. Do NOT indu- contaminated clothing. Rinse skin with wi keep comfortable for breathing. If in eyes Remove contact lenses, if present and ea center/doctor. Specific treatment is urgen reuse.	ce vomiting. If on skin (or hair): Take off immediately all ater/shower. If inhaled: Remove person to fresh air and : Rinse cautiously with water for several minutes. asy to do. Continue rinsing. Immediately call a poison it (see this label). Wash contaminated clothing before
Storage	Store in a well-ventilated place. Keep cor	tainer tightly closed. Store locked up.
Disposal	Dispose of contents/container in accorda	nce with local/regional/national/international regulations
Hazard(s) not otherwise classified (HNOC)	None known.	
Supplemental information	28.5% of the mixture consists of component	ent(s) of unknown acute inhalation toxicity.

3. Composition/information on ingredients

Chemical name Common name and synonyms CAS number % SULFURIC ACID 7664-93-9 71.5 Other components below reportable levels 28.5

Material name: SULFURIC ACID 70%

Mixtures

19015 Version #: 06 Revision date: 11-05-2015 Issue date: 05-08-2015

4. First-aid measures

Laboration and the second seco	
Inhalation	Remove victim to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Do not use mouth-to-mouth method if victim inhaled the substance. Induce artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Call a physician or poison control center immediately.
Skin contact	Take off immediately all contaminated clothing. Rinse skin with water/shower. Call a physician or poison control center immediately. Chemical burns must be treated by a physician. Wash contaminated clothing before reuse.
Eye contact	Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Call a physician or poison control center immediately.
Ingestion	Call a physician or poison control center immediately. Rinse mouth. Do not induce vomiting. If vomiting occurs, keep head low so that stomach content doesn't get into the lungs.
Most important symptoms/effects, acute and delayed	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.
Indication of immediate medical attention and special treatment needed	Provide general supportive measures and treat symptomatically. Chemical burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital. Keep victim warm. Keep victim under observation. Symptoms may be delayed.
General information	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves. Show this safety data sheet to the doctor in attendance.
5. Fire-fighting measures	
Suitable extinguishing media	Foam. Powder. Carbon dioxide (CO2).
Unsuitable extinguishing media	Do not use water jet as an extinguisher, as this will spread the fire.
Specific hazards arising from the chemical	During fire, gases hazardous to health may be formed.
Special protective equipment and precautions for firefighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.
Fire fighting equipment/instructions	Move containers from fire area if you can do so without risk.
Specific methods	Use standard firefighting procedures and consider the hazards of other involved materials
General fire hazards	No unusual fire or explosion hazards noted.

6. Accidental release measures

errenten rendere meda	
Personal precautions, protective equipment and emergency procedures	Keep unnecessary personnel away. Keep people away from and upwind of spill/leak. Wear appropriate protective equipment and clothing during clean-up. Do not breathe vapors or spray mist. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Ensure adequate ventilation. Local authorities should be advised if significant spillages cannot be contained. For personal protection, see section 8 of the SDS.
Methods and materials for containment and cleaning up	Large Spills: Stop the flow of material, if this is without risk. Dike the spilled material, where this is possible. Cover with plastic sheet to prevent spreading. Absorb in vermiculite, dry sand or earth and place into containers. Following product recovery, flush area with water.
	Small Spills: Wipe up with absorbent material (e.g. cloth, fleece). Clean surface thoroughly to remove residual contamination.
Environmental precautions	Never return spills to original containers for re-use. For waste disposal, see section 13 of the SDS. Avoid discharge into drains, water courses or onto the ground.
7. Handling and storage	
Precautions for safe handling	Do not breathe vapors or spray mist. Do not get in eyes, on skin, or on clothing. Avoid prolonged exposure. Use only outdoors or in a well-ventilated area. Wear appropriate personal protective equipment. Observe good industrial hygiene practices.
Conditions for safe storage, including any incompatibilities	Store locked up. Store in original tightly closed container. Store in a well-ventilated place. Store away from incompatible materials (see Section 10 of the SDS).

8. Exposure controls/personal protection

Occupational exposure limits

Components	Type	l000) Value	
SULFURIC ACID (CAS 7664-93-9)	PEL	1 mg/m3	
US. ACGIH Threshold Lin	nit Values		
Components	Туре	Value	Form
SULFURIC ACID (CAS 7664-93-9)	TWA	0,2 mg/m3	Thoracic fraction.
US. NIOSH: Pocket Guide	to Chemical Hazards		
Components	Туре	Value	
SULFURIC ACID (CAS 7664-93-9)	TWA	1 mg/m3	
Biological limit values	No biological exposure limits noted for	or the ingredient(s)	
Appropriate engineering controls	Good general ventilation (typically 10 should be matched to conditions. If a or other engineering controls to main exposure limits have not been establi wash facilities and emergency showe	air changes per hour) should pplicable, use process enclosu tain airborne levels below reco ished, maintain airborne levels ar must be available when hanc	be used. Ventilation rates ires, local exhaust ventilation, mmended exposure limits. If to an acceptable level. Eye dling this product.
ndividual protection measure	s, such as personal protective equipm	ent	0 0 0 0
Eye/face protection	Chemical respirator with organic vapo	or cartridge and full facepiece.	
Skin protection			
Hand protection	Wear appropriate chemical resistant supplier.	gloves. Suitable gloves can be	recommended by the glove
Other	Wear appropriate chemical resistant of	clothing. Use of an impervious	apron is recommended
Respiratory protection	Chemical respirator with organic vapor cartridge and full faceniace		
Thermal hazards	Wear appropriate thermal protective of	clothing, when necessary.	
eneral hygiene onsiderations	Always observe good personal hygies and before eating, drinking, and/or sn equipment to remove contaminants.	ne measures, such as washing noking. Routinely wash work o	after handling the material lothing and protective

9. Physical and chemical properties

Appearance	
Physical state	Liquid.
Form	Liquid.
Color	CLEAR COLORLESS
Odor	ODORLESS
Odor threshold	Not available.
pH	Not available.
Melting point/freezing point	71 °F (21.67 °C)
Initial boiling point and boiling range	456.53 °F (235.85 °C) estimated
Flash point	Not available.
Evaporation rate	Not available.
Flammability (solid, gas)	Not applicable.
Upper/lower flammability or expl	osive limits
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit - lower (%)	Not available.
Explosive limit - upper (%)	Not available.

Material name: SULFURIC ACID 70%

19015 Version #: 06 Revision date: 11-05-2015 Issue date: 05-06-2015

Product #: 211640 From: BRENN Vapor pressure	NTAG MID-SOUTH Not available.	To: CFINDUSTRIES INC	Wednesday, May 11, 2016
Vapor density	Not available.		
Relative density	Not available.		
Solubility(ies)			
Solubility (water)	Not available.		
Partition coefficient (n-octanol/water)	Not available.		
Auto-ignition temperature	Not available.		
Decomposition temperature	Not available.		
Viscosity	Not available.		
Other information			
Density	13.48 lbs/gal		
Explosive properties	Not explosive.		
Oxidizing properties	Not oxidizing.		
Percent volatile	28.5 % estimated		
Specific gravity	1.62		

10. Stability and reactivity

Reactivity	The product is stable and non-reactive under normal conditions of use, storage and transport.
Chemical stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Hazardous polymerization does not occur.
Conditions to avoid	Contact with incompatible materials.
Incompatible materials	Strong oxidizing agents.
Hazardous decomposition products	No hazardous decomposition products are known.

11. Toxicological information

Information on likely routes of exposure

Inhalation	Fatal if inhaled.
Skin contact	Causes severe skin burns.
Eye contact	Causes serious eye damage.
Ingestion	Causes digestive tract burns.
Symptoms related to the physical, chemical and toxicological characteristics	Burning pain and severe corrosive skin damage. Causes serious eye damage. Symptoms may include stinging, tearing, redness, swelling, and blurred vision. Permanent eye damage including blindness could result.
information on toxicological effe	cts
Acute toxicity	Fatal if inhaled.
Skin corrosion/irritation	Causes severe skin burns and eye damage.
Serious eye damage/eye irritation	Causes serious eye damage.
Respiratory or skin sensitization	
Respiratory sensitization	Not a respiratory sensitizer.
Skin sensitization	This product is not expected to cause skin sensitization.
Germ cell mutagenicity	No data available to indicate product or any components present at greater than 0.1% are mutagenic or genotoxic.
Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
IARC Monographs. Overall E	valuation of Carcinogenicity
Not available.	
Not listed.	1 Substances (29 CFR 1910.1001-1050)
US. National Toxicology Pro	gram (NTP) Report on Carcinogens
Not available.	

Material name: SULFURIC ACID 70%

19015 Version #: 08 Revision date: 11-05-2015 Issue date: 05-06-2015

Product #: 211640 From: B Reproductive toxicity	RENNTAG MID-SO This product	OUTH To: C F INDL	JSTRIES INC Wednesday, May 11, 2016 reproductive or developmental effects.	
Specific target organ toxic single exposure	ity - Not classified	l,		
Specific target organ toxic repeated exposure	ity - Not classified	Ι.		
Aspiration hazard	Not an aspira	tion hazard.		
Chronic effects	Prolonged int	nalation may be harmful.		
12. Ecological inform	ation			
Ecotoxicity	The product i possibility that	The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.		
Components		Species	Test Results	
SULFURIC ACID (CAS	7664-93-9).			
Aquatic				
Fish	LC50	Western mosquitofish (Gambusia affinis) 42 mg/l, 96 hours	
* Estimates for product	may be based on add	litional component data no	ot shown.	
Persistence and degradab	ility No data is av	ailable on the degradabili	ty of this product.	
Bioaccumulative potential	No data avail	No data available.		
Mobility in soil	No data avail	No data available.		
Other adverse effects	No other adv potential, end	No other adverse environmental effects (e.g. ozone depletion, photochemical ozone creation potential, endocrine disruption, global warming potential) are expected from this component.		
13. Disposal consider	ations			
Disposal instructions	Collect and re contents/conf	Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Dispose of contents/container in accordance with local/regional/national/international regulations.		
Local disposal regulations	Dispose in ac	cordance with all applicat	ble regulations.	
Hazardous waste code	The waste co disposal com	de should be assigned in pany.	discussion between the user, the producer and the	ie waste
Waste from residues / unu products	sed Dispose of in product resid Disposal inst	accordance with local reg ues. This material and its ructions).	julations. Empty containers or liners may retain so container must be disposed of in a safe manner (ome see:
Contaminated packaging	Since emptie emptied. Emj disposal.	d containers may retain pr pty containers should be tr	roduct residue, follow label warnings even after co aken to an approved waste handling site for recyc	ontainer is ;ling or
44 Trongwort Informa	4i			

14. Transport information

DOT	
UN number	UN1830
UN proper shipping name	SULFURIC ACID
Transport hazard class(es)	
Class	8
Subsidiary risk	-
Packing group	
Special precautions for user	Read safety instructions, SDS and emergency procedures before handling.
ERG number	137
DOT information on packaging	may be different from that listed

DOT



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15	. Regulatory inform	ation			the mediciday in	iy 11, 2010
US	federal regulations	This produc Standard, 2	t is a "Hazardou 9 CFR 1910.12	us Chemical" as define	d by the OSHA Hazard	Communication
	TSCA Section 12(b) Ex	port Notification (40 CFR 707, SL	ubpt, D)		
	Not regulated.		·			
	CERCLA Hazardous S	ubstance List (40	CFR 302.4)			
	SOLF URIC ACID (C SARA 304 Emergency	CAS 7664-93-9) release notificatio	n	Listed.		
	SULFURIC ACID (C OSHA Specifically Reg Not listed.	CAS 7664-93-9) Julated Substance	s (29 CFR 1910	1000 LBS . 1001-1050)		
Suţ	perfund Amendments ar Hazard categories	nd Reauthorization Immediate H Delayed Ha Fire Hazard Pressure Ha Reactivity H	Act of 1986 (S Hazard - Yes zard - No - No azard - No lazard - No	SARA)		
	SARA 302 Extremely h	azardous substan	ce			
	Chemical name	CAS number	Reportable quantity	Threshold planning quantity	Threshold planning quantity, lower value	Threshold planning quantity,
	SULFURIC ACID	7664-93-9	1000	1000 lbs		abbat talac
	SARA 311/312 Hazardo chemical	ous No				
	SARA 313 (TRI reportin	ng)				
	Chemical name			CAS number	% by wt.	
A 44	SULFURIC ACID			7664-93-9	71.5	
Oth	er rederal regulations					
	Clean Air Act (CAA) Se	ection 112 Hazardo	ous Air Pollutar	nts (HAPs) List		
	Clean Air Act (CAA) Se	ection 112(r) Accid	ental Release F	Prevention (40 CFR 6	3.130}	
	Safe Drinking Water Ac (SDWA)	ct Not regulate	d.			
	Drug Enforcement Chemical Code Nu	Administration (D	EA). List 2, Es:	sential Chemicals (21	CFR 1310.02(b) and 1	310.04(f)(2) and
	SULFURIC ACI	ID (CAS 7664-93-9)	>	6552		
	Drug Enforcement	Administration (D	EA). List 1 & 2	Exempt Chemical Mi	xtures (21 CFR 1310.1	2(c))
	DEA Exempt Cherr	ID (CAS 7664-93-9) nical Mixtures Cod) e Number	20 %\VV		
	SULFURIC ACI	ID (CAS 7664-93-9))	6552		
US	state regulations					
	Not listed.	ed Substances, C/	A Department o	of Justice (California I	lealth and Safety Cod	e Section 11100)
	SULFURIC ACID (C	K - Substance List AS 7664-93-9)				
	SULFURIC ACID (C	AS 7664-93-9)	Right-to-Know	Act		
	US. Pennsylvania Work	ker and Communit	y Right-to-Kno	w Law		
	US. Rhode Island RTK	A3 (004-93-9)				
	SULFURIC ACID (C	AS 7664-93-9)				
	US. California Proposit	tion 65				
	California Safe Drinl any chemicals curre	king Water and Tox ntly listed as carcin	ic Enforcement ogens or reprod	Act of 1986 (Propositio luctive toxins.	n 65): This material is r	ot known to contain

Material name: SULFURIC ACID 70%

¹⁹⁰¹⁵ Version #: 06 Revision date: 11-05-2015 Issue date: 05-06-2015

Country(s) or region	Inventory name	
Australia	Australian Inventory of Chemical Substances (AICS)	On inventory (yes/ho)
Canada	Domestic Substances List (DSL)	Yes
Canada	Non-Domestic Substances List (NDSL)	Yes
China	Inventory of Existing Chemical Substances in China (IECSC)	INO
Europe	European Inventory of Existing Commercial Chemical Substances (EINECS)	Yes
Europe	European List of Notified Chemical Substances (ELINCS)	No
Japan	Inventory of Existing and New Chemical Substances (ENCS)	Yes
Korea	Existing Chemicals List (ECL)	Ves
New Zealand	New Zealand Inventory	Tes Vac
Philippines	Philippine Inventory of Chemicals and Chemical Substances (PICCS)	Yes
United States & Puerto Rico	Toxic Substances Control Act (TSCA) Inventory	Yes

*A "Yes" indicates that all components of this product comply with the inventory requirements administered by the governing country(s) A "No" indicates that one or more components of the product are not listed or exempt from listing on the inventory administered by the governing country(s).

16. Other information, including date of preparation or last revision

Issue date	05-06-2015
Revision date	11-05-2015
Version #	06
HMIS® ratings	Health: 3 Flammability: 1 Physical hazard: 1
NFPA ratings	Health: 3 Flammability: 1 Instability: 1 Special hazards:-W-
Disclaimer	While Brenntag believes the information contained herein to be accurate, Brenntag makes no representation or warranty, express or implied, regarding, and assumes no liability for, the accuracy or completeness of the information. The Buyer assumes all responsibility for handling, using and/or reselling the Product in accordance with applicable federal, state, and local law. This SDS shall not in any way limit or preclude the operation and effect of any of the provisions of

Brenntag's terms and conditions of sale.

Analytical Report – Samples Collected February 24, 2023 (Parameters not included in current NPDES requirements)

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Pace Analytical Services, LLC 2231 W. Altorfer Drive Peoria, IL 61615 (800)752-6651

March 03, 2023

Mike Curtis CF Industries-Palmyra MO 2838 County Road 359 Palmyra, MO 63461

Dear Mike Curtis:

Please find enclosed the analytical results for the 1 sample(s) the laboratory received on 2/23/23 3:20 pm and logged in under work order **GB04193**. All testing is performed according to our current TNI accreditations unless otherwise noted. This report cannot be reproduced, except in full, without the written permission of Pace Analytical Services, LLC.

If you have any questions regarding your report, please contact your project manager. Quality and timely data is of the utmost importance to us.

Pace Analytical Services appreciates the opportunity to provide you with analytical expertise. We are always trying to improve our customer service and we welcome you to contact the General Manager, Lisa Grant, with any feedback you have about your experience with our laboratory at 309-683-1764 or lisa.grant@pacelabs.com.

Sat Wilman

Scott Wickman Project Manager (309) 692-9688 x1724 scott.wickman@pacelabs.com



Pace Analytical Services, LLC 2231 W. Altorfer Drive Peoria, IL 61615 (800)752-6651

SAMPLE RECEIPT CHECK LIST

Items not applicable will be marked as in compliance

Work Order GB04193

YES	Samples received within temperature compliance when applicable
YES	COC present upon sample receipt
YES	COC completed & legible
YES	Sampler name & signature present
YES	Unique sample IDs assigned
YES	Sample collection location recorded
YES	Date & time collected recorded on COC
YES	Relinquished by client signature on COC
YES	COC & labels match
YES	Sample labels are legible
YES	Appropriate bottle(s) received
YES	Sufficient sample volume received
YES	Sample containers received undamaged
NO	Zero headspace, <6 mm present in VOA vials
NO	Trip blank(s) received
YES	All non-field analyses received within holding times
YES	Short hold time analysis
YES	Current PDC COC submitted
NO	Case narrative provided


Pace Analytical Services, LLC 2231 W. Altorfer Drive Peoria, IL 61615 (800)752-6651

ANALYTICAL RESULTS

Sample: GB04193-0 Name: Effluent Matrix: Waste Wa)1 ter - Grab						Sampled: 02/23 Received: 02/23 PO #: 86633	/23 11:50 /23 15:20 38	
Parameter	Result	Unit	Qualifier	Prepared	Dilution	MRL	Analyzed	Analyst	Method
Anions - PIA									
Bromide	< 1.0	mg/L		02/24/23 11:14	1	1.0	02/24/23 11:14	CRD	ÉPA 300.0 REV 2.1
Nitrate-N	1.6	mg/L		02/24/23 11:14	1	0.03	02/24/23 11:14	CRD	EPA 300.0 REV 2.1
Field - PIA									
pH, Field Measured	7.56	pH Units		02/23/23 11:50	1		02/23/23 11:50	FIELD	Field*
Temperature, Field	9.2	°C		02/23/23 11:50	1		02/23/23 11:50	FIELD	Field*
Measured Chlorine - Total Residual, Field	< 0.050	mg/L		02/23/23 11:50	1	0.050	02/23/23 11:50	FIELD	SM 4500CL G 2000*
General Chemistry - PIA									
BOD	< 4.0	mg/L	B3	02/24/23 10:14	1	4.0	02/24/23 10:14	BLR/KCS	SM 5210B 2001
Total Organic Carbon (TOC)	6.2	mg/L		02/28/23 19:58	1	0.50	02/28/23 19:58	CRD	SM 5310C 2000
Organic Nitrogen	< 1.0	mg/L		02/28/23 14:39	1	1.0	03/02/23 14:37	NWT	Calculated - See Notes
Microbiology - PIA									
Fecal coliform bacteria	3.0	MPN/100mL		02/23/23 17:00	1	1.0	02/23/23 17:00	ARR	Colilert-18*
Nutrients - PIA									
Ammonia-N	1.1	mg/L		02/28/23 14:39	1	0.10	02/28/23 14:39	ттн	EPA 350.1 REV2
Total Kjeldahl Nitrogen (TKN)	1.8	mg/L		02/27/23 10:49	1	1.0	03/02/23 14:37	NWT	OIA/PAI-DK03 & EPA 351.2 REV 2



Pace Analytical Services, LLC 2231 W. Altorfer Drive Peoria, IL 61615 (800)752-6651

NOTES

Specifications regarding method revisions, method modifications, and calculations used for analysis are available upon request. Please contact your project manager.

* Not a TNI accredited analyte

Certifications

- CHI McHenry, IL 4314-A W. Crystal Lake Road, McHenry, IL 60050 TNI Accreditation for Drinking Water and Wastewater Fields of Testing through IL EPA Accreditation No. 100279 Illinois Department of Public Health Bacterial Analysis in Drinking Water Approved Laboratory Registry No. 17556
- PIA Peoria, IL 2231 W. Altorfer Drive, Peoria, IL 61615

TNI Accreditation for Drinking Water, Wastewater, Solid and Hazardous Material Fields of Testing through IL EPA Accreditation No. 100230

Illinois Department of Public Health Bacterial Analysis in Drinking Water Approved Laboratory Registry No. 17553 Drinking Water Certifications/Accreditations: Iowa (240); Kansas (E-10338); Missouri (870) Wastewater Certifications/Accreditations: Arkansas (88-0677); Iowa (240); Kansas (E-10338) Solid and Hazardous Material Certifications/Accreditations: Arkansas (88-0677); Iowa (240); Kansas (E-10338)

- SPMO Springfield, MO 1805 W Sunset Street, Springfield, MO 65807 USEPA DMR-QA Program
- STL Hazelwood, MO 944 Anglum Rd, Hazelwood, MO 63042

TNI Accreditation for Wastewater, Solid and Hazardous Material Fields of Testing through KS KDHE Certification No. E-10389 TNI Accreditation for Wastewater, Solid and Hazardous Material Fields of Testing through IL EPA Accreditation No. - 200080 Illinois Department of Public Health Bacterial Analysis in Drinking Water Approved Laboratory, Registry No. 171050 Missouri Department of Natural Resources - Certificate of Approval for Microbiological Laboratory Service - No. 1050

Qualifiers

B3 Unseeded dilution water depletion is > 0.2 mg/L.

Sout Wilnum



Certified by: Scott Wickman, Project Manager

Lace Allaly lical Services	REGULATOR	ד דאטטאאשון (כוו	KULE):	Ż	PDES				CHA	IN OF	CUSTODY RECORD	
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CF Industries - Palmyra MO	PROJEC	T NUMBER	Palmyra,		PURCHASE OF	DER #	3	ALYSIS	REQUEST	ß	(FOR LAB USE ONLY)	
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are Palmyra, MO 63461	SAMPLER (PLEASE PRM	UC D	Um bella	5	MATRIX TYP WW- WASTEWATER DW- DRUNDING WATER GW- GROUND WATER	ŝ			ш		CLIENT: PROJECT: Cooth Michement	_
CONTACT PERSON Mike Curtis	SIGNATURE	1 L	2 M		WW8L, SLUDGE NAS- MON AGLEOUS LGHT-LEACHATE OIL-OIL SO-SOIL SOL-SOLE	anas	03		Colifor nic N		PROJ. MGR.: JOULI WICKIIIGI	_
2 UNIDUE DESCRIPTION AS IT WILL APPEAR ON THE ANALYTICAL REPORT)	DATE	COLLECTED	SAMPLE TYPE GRAB COMP	MATRIX TYPE	BOTTLE	PRES CODE CUENT ROVIDED	BC N	BOD	Fecal Ordar	COC	REMARKS	
Effluent	2 /03 /23	1150	\times	MM	9		X X	X	X	X	Chlorine: 0 · C mg/L	r
											Field pH: 7.56	· · ·
Additional container for field parameter	S		-								Field Temp: 9.2 C	
									_		Cl2 Limit: <0.05 mg/L	
									-		Max Temp (Dec-Mar): 15.56 C	
									_		Max Temp (Apr-Nov): 32.2 C	
											pH Range: 6-9	_
Contact above if field parameters exceed lir	mits						_					T
												-
*2 Day Rush TAT	-											
CHEMICAL PRESERVATION CODES: 1-HCL 2-H2SO4	3-HNO3 4-N	AOH 5-NA	2S2O3 6 - Uh	VPRESERVED	7-OTHER							-
TURNAROUND TIME REQUESTED PLEASE CIRCLE) (RUSH TAT IS SUBJECT TO PACE LABS APPROVAL AND SURCHAR	NORMAL RUSH		DATE RESULTS NEEDED	6	I understand the	t by initialing	y this box	r I give th	e lab perm	lission to p	roceed with analysis, even though it may	· · · ·
RUSH RESULTS VIA (PLEASE CIRCLE) EMAIL PHONE	ш)	Policy and the d	ata will be qu	alified. C	ualified c	iata may A	IOI be acc	earning recting a campre Acceptance eptable to report to all regulatory authorities.	-
EMAIL IF DIFFERENT FROM ABOVE: PHONE # IF DIFFERENT FROM	A ABOVE:				PROCEED WIT	H ANALYSIS	AND QU	ALIFY RE	SULTS: (I	(STATTIN		
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‱ Palmyra, MO 63461	PLEASE PRWTT	lan	n belle	5	MATRIX TYPE	in			ш.		PROJEC	CF Industries Paimyra W SCOTT Wick	M Perrult Ranewal
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2 (UNIQUE DESCRIPTION AS IT WILL APPEAR ON THE AMALYTICAL REPORT)		AE Screb GR	AMPLE TYPE AB COMP	MATRIX TYPE	BOTTLE PE COUNT CC		Br. N	BOD	Fecal			REMARKS	
Effluent	2 43/23 1150		×	MM	9	×	X	Х	×	X	Chlori	ne: 0 · 0	mg/L
											Field	0H: 7.9	ø
Additional container for field parameters											Field .	Temp:	2 C
			-			+	_		+		CIZ	Limit: <0.0	5 mg/L
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						-					Max To	emp (Apr-No	v): 32.2 C
												oH Range:	6-9
Contact above if field parameters exceed limit	ts												
						+			_				
*2 Day Rush TAT	_	_				_							
CHEMICAL PRESERVATION CODES: I-HCL 2-H2SO4 3	3-HNO3 4-NAOH	5 - NA2S20:	3 6 – UNP	RESERVED	7 - OTHER				1				
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RUSH RESULTS VIA (PLEASE CIRCLE) EMAIL PHONE)	Policy and the dat	e conrorma will be qua	rice req liffed. Q	ualified	is as den data may	NOT be ad	receiving facility cceptable to rep	's Sample Accept ort to all regulator	ance / authorities.
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CLIENT: Client's company name ADDRESS: Client's mailing address		4	To be completed by laboratory persc	nnel.
CITY, STATE JUNE STIMUTES SUCCESS CONTACT PERSON Person to receive results PROJECT NUMBER: Client's reference to the project	or mailing בי מי work involved with	S	TURNAROUND TIME REQUESTEC TAT. If faster results are needed circ possible call the tab in advance to s	S: Circle "NORMAL" if you want routine 10 working day sle "RUSH", indicated the due date requested, and, if chedula this work. Surcharces may apply for non-
thesesamples. PROJECT LOCATION: Client's location of project PURCHASE ORDER NUMBER: Client's involcing int PHONE NUMBER: Client's contact phone number E-MAIL: Client's e-mail for correspondence and final	formation		routine turnaround times. RUSH RESULTS VIA: Choose meth results by circling either "PHONE" of from that listed in section 1.	index with you would like to receive the RUSH re-MAIL". List the appropriate number/e-mail if different
DATE SHIPPED: Month, date and year samples wer SAMPLER: Printed name of sample collector SAMPLER'S SIGNATURE: Signature of sample coll REGULATORY PROGRAM: Circle regulatory progra STATE WHERE SAMPLES COLLECTED: Enter the	eshipped or delivered to the lab ector am if applicable. state if different from client address	۵	Place your initials on the line to give you regarding a sample nonconform Policy requirements then the approp the corresponding analysis and may your project manager for further info Policy.	the lab permission to proceed with analysis <u>without</u> calling lance. If the sample does not meet the Sample Acceptance oriate case narrative and/or data qualifiers will be added to root be acceptable to use for regulatory purposes. Contact irmation or to obtain a copy of the Sample Acceptance
SAMPLE DESCRIPTION: The unique sample descri analytical report DATE COLLECTED; Date sample was collected. Fo the date when the last aliquot was added.	iption you want to appear on the r composite samples, this is typically		Summarized Sample Acceptance P. • Proper, full and completed chain- • Readable unique sample contain-	olicy Requirements: of-custody documentation er identification written in indelible ink
TIME COLLECTED: Time sample was collected. For the time when the last aliquot was added. SAMPLE TYPE: Place a check mark in the box ma at one time from one specific location. Place a chec sample is a composite of samples collected at one or combined to make one sample. MATRIX TYPE: From field above. If "OTHER" please BOTLE COUNT: Total number of containers submitth PRESERVATION CODE: Indicate bottle preservative	r composite samples, this is typically inted "GRAB" if the sample was collected of mark in the box marked "COMP" if the r more times or locations and a identify ed for the samples a using the codes on the front of the COC		 Appropriate sample container Sufficient sample volume to perfo Received within required holding Received within temperature pres Sample containers received in gc Any custody seal intact Property preserved, and No headspace in volatile water si 	orm requested tests time servation requirements bod condition (not leaking or broken) amples
for non-PACE bottles, provided by the client.			A data qualifier and/or case narrative v sample acceptance requirements are BOX 6 CANNOT BE USED FOR DRI	will be added to the final test report when the above not met. NKING WATER COMPLIANCE SAMPLES.
ANALYSIS REQUESTED : Write the analysis name a group of tests, or the method number you would like TCLP Metals, PCBs, Method 624, etc. Place a check correspond to the sample(s) on which you want these	(or an abbreviation), the name of a us to perform. Examples are BOD, k mark in the small boxes that e tests performed.	~	RELINQUISHED BY/RECEIVED B changes hands. Chain-of-Custody s	Y: This form <u>must be signed</u> each time the sample(s) seals are available upon request if needed.
REMARKS: List special instructions about the samplused for listing additional analyses, or to request an sent to an alternate nerson/address	le here. This space can also be extra copy of the report to be	α	To he completed hy laboratory new	
		2	to be completed by labouratory pers	
Sample Acce	ptance Policy – Receiving facility's spec	ific po	licy available from your project mar	nager.
	SERVING YOU IN THE FOL	MOT	NG LOCATIONS	
2231 W Attorfer Dr Peoria, IL 61615 309-692-9688	944 Anglum Road Hazefwood, MO 63042 314-432-0550		1805 W Sunset St. Springfield, MO 65807 417-964-8924	4314-A Crystal Lake Rd McHenry, IL 60050 815-344-4044
	Thank you for using Pace Ar Please call 800-752-6651 if you have any c	questio	al Services, LLC ins about completing this form.	Page 8 of 8

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