



Jeremiah W. (Jay) Nixon, Governor

Sara Parker Pauley, Director

DEPARTMENT OF NATURAL RESOURCES

dnr.mo.gov

Opie's Transport, Inc.
P.O. Box 89
Eldon, MO 65026

Dear Permittee:

Pursuant to the Federal Water Pollution Control Act, under the authority granted to the State of Missouri and in compliance with the Missouri Clean Water Law, we have issued and are enclosing your State Operating Permit to discharge from **Opie's Transport, Inc.**, Miller County, Missouri.

Please read your permit and enclosed Standard Conditions. They contain important information on monitoring requirements, effluent limitations, sampling frequencies and reporting requirements.

Monitoring reports required by the special conditions must be submitted on a periodic basis. The required forms are enclosed. Please make copies for your use. Completed forms should be mailed to this office.

This permit is both your Federal NPDES Permit and your new Missouri State Operating Permit and replaces all previous State Operating Permits issued for this facility under this permit number. In all future correspondence regarding this facility, please refer to your State Operating Permit number and facility name as shown on page one of the permit.

Please be aware that nothing in this permit relieves the permittee of any other legal obligations or restrictions, such as other federal or state laws, court orders, or county or other local ordinances or restrictions.

If you were adversely affected by this decision, you may be entitled to an appeal before the administrative hearing commission pursuant to 10 CSR 20-1.020 and Section 621.250, RSMo. To appeal, you must file a petition with the administrative hearing commission 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 administrative hearing commission. Any appeal shall be directed to: Administrative Hearing Commission, Truman Building, Room 640, 301 W. High Street, P.O. Box 1557, Jefferson City, MO 65102, Phone: 573-751-2422, Fax: 573-751-5018, website: www.oha.mo.gov/ahc.



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Opie's Transport, Inc.
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If you have questions concerning this permit please contact Ms. Gwenda J. Bassett of my staff by calling 417-891-4300 or via mail at Southwest Regional Office, 2040 W. Woodland, Springfield, MO 65807-5912.

Sincerely,

SOUTHWEST REGIONAL OFFICE

A handwritten signature in cursive script that reads "Cynthia S. Davies".

Cynthia S. Davies
Regional Director

CSD/gbk

Enclosures

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES
MISSOURI CLEAN WATER COMMISSION



MISSOURI STATE OPERATING PERMIT

In compliance with the Missouri Clean Water Law, (Chapter 644 R.S. Mo. as amended, hereinafter, the Law), and the Federal Water Pollution Control Act (Public Law 92-500, 92nd Congress) as amended,

Permit No.	MO-0121525
Owner:	Opie's Transport, Inc.
Address:	P.O. Box 89, Eldon, MO 65026
Continuing Authority:	Same as Above
Address:	Same as Above
Facility Name:	Opie's Transport, Inc. WWTF
Facility Address:	HWY 54 and Route FF, Eldon MO 65026
Legal Description:	SE¼, NW¼, Sec. 25, T42N, R15W, Miller County
UTM (X/Y):	540936 / 4246877
Receiving Stream:	Unnamed Tributary to Blythes Creek (U)
First Classified Stream and ID:	Blythes Creek (P) (00993)
USGS Basin & Sub-watershed No.:	(10300102-1201)

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

FACILITY DESCRIPTION

Outfall #001 – Industrial Wastewater – SIC #4213

The use or operation of this facility does not require a CERTIFIED OPERATOR.

Two cell lagoon / sludge is retained in lagoon / effluent pumped to Outfall #002 for irrigation

Design organic population equivalent is 982.

Design flow is 0.036840 MGD (1-in-10 year design flow including net rainfall minus evaporation).

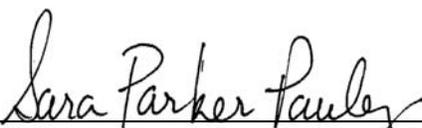
Design average daily flow is 0.025000 MGD (dry weather flows).

Design sludge production is 14.7 dry tons/year.

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

February 8, 2012

Effective Date


Sara Parker Pauley, Director, Department of Natural Resources

February 7, 2017

Expiration Date


Cynthia S. Davies, Regional Director, Southwest Regional Office

FACILITY DESCRIPTION (continued)

Outfall #001 – Lagoon System Design (Cell #001 and Cell#002)

Legal Description: SE¼, NW¼, Sec. 25, T42N, R15W, Miller County
 UTM (X/Y): 540936 / 4246877

Receiving Stream Watershed: a gaining stream setting

Facility Type: No-discharge Storage & Irrigation System for year round flows into lagoon.

Design Basis: Average Annual

Design dry weather flows: 25,000 gpd
 Design with 1-in-10 year flows: 32,850.56 gpd
 Design PE: 982

Stormwater Flows: (Miller County)

Average Annual Rainfall: 40.0 inches
 1-in-10 Year Annual Rainfall: 52.0 inches
 25-year-24-hour storm: 6.0 inches

1-in-10 Year Flows: Annual
 Runoff from concrete and roof areas: 3.6 ft
 Runoff from earth areas: (lagoon berm, lots, etc.) 1.1 ft
 Rainfall minus evaporation (R-E) on lagoon water surface: 1.3 ft

Storage Capacity: Average Annual

Design for dry weather flows: 499 days

Cell #001

<u>Lagoon Dimensions:</u>	<u>(Length x Width)</u>	<u>Surface Area</u>	<u>Depth from Bottom</u>	<u>Pump down depth (from spillway)</u>
Inside Top Berm:	545' x 225'	122,625 sq.ft.	by <u>3</u> feet depth	
Emergency Spillway:	66' x 206'	13,596 sq.ft.	by <u>0</u> feet depth	<u>1.0</u> feet
Freeboard: (top berm to spillway):			<u>1.0</u> feet depth	
Maximum operating level:			<u>2</u> feet depth	<u>1.0</u> feet
Minimum operating level:			<u>1</u> feet depth	<u>2.0</u> feet

Storage volume (minimum to maximum water levels) 865,892 gallons

Cell #002

<u>Lagoon Dimensions:</u>	<u>(Length x Width)</u>	<u>Surface Area</u>	<u>Depth from Bottom</u>	<u>Pump down depth (from spillway)</u>
Inside Top Berm:	120' x 260'	31,200 sq.ft.	by <u>10</u> feet depth	
Emergency Spillway:	66' x 206'	13,596 sq.ft.	by <u>1</u> feet depth	<u>1.0</u> feet
Freeboard: (top berm to spillway):			<u>1.0</u> feet depth	
Maximum operating level:			<u>8</u> feet depth	<u>2.0</u> feet
Minimum operating level:			<u>2</u> feet depth	<u>8.0</u> feet

Storage volume (minimum to maximum water levels) 924,155 gallons

FACILITY DESCRIPTION (continued)

Outfall #002 – Storage Basin (Cell #003) and Land Application Site

Legal Description: NW¼, NE¼, Sec. 25, T42N, R15W, Miller County
 UTM (X/Y): 541497 / 4247185

Receiving Stream: Unnamed Tributary to Brush Creek (U)
 First Classified Stream and ID: Brush Creek (C) (00995)
 USGS Basin & Sub-watershed No.: (10300102-1203)

Land Application:

Irrigation volume per year: 13,484,000 gallons (including 1-in-10 year flows)
 Irrigation areas: 6.3 acres at design loading
 Application rates per acre: 0.1inch / hour; 0.8 inch / day; 2.0 inches / week; 78.8 inches / year
 Field slopes: less than 7.0 percent
 Equipment type: sprinklers
 Vegetation: grass land
 Application rate is based on: plant available nitrogen loading rate

Cell #003 (Storage Basin before Irrigation)

<u>Lagoon Dimensions:</u>	<u>(Length x Width)</u>	<u>Surface Area</u>	<u>Depth from Bottom</u>	<u>Pump down depth (from spillway)</u>
Inside Top Berm:	590' x 255'	150,450 sq.ft.	by <u>17</u> feet depth	
Emergency Spillway:	494' x 159'	78,546 sq.ft.	by <u>16</u> feet depth	<u>1.0</u> feet
Freeboard: (top berm to spillway):			<u>1.0</u> feet depth	
Maximum operating level:			<u>15</u> feet depth	<u>2.0</u> feet
Minimum operating level:			<u>2</u> feet depth	<u>15.0</u> feet

Storage volume (minimum to maximum water levels) 10,676,565 gallons

Outfall #003 – This stormwater monitoring outfall has been eliminated.

Outfall #004 – This stormwater monitoring outfall has been eliminated.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS

PAGE NUMBER 4 of 9
 PERMIT NUMBER MO-0121525

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

OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
<u>Outfall #002</u> – (Note 1, 2, and 3)						
Lagoon Freeboard	feet	*		*	once/month	measured
Rainfall	inches	*		*	daily	total

MONITORING REPORTS SHALL BE SUBMITTED **ANNUALLY**; THE FIRST REPORT IS DUE **JANUARY 28, 2013**.

Outfall #002 – Land Application Operational Monitoring (Notes 2 & 3)

Irrigation Period	hours	*			daily	total
Volume Irrigated	gallons	*			daily	total
Application Area	acres	*			daily	total
Application Rate	inches / acre	*			daily	total

MONITORING REPORTS SHALL BE SUBMITTED **ANNUALLY**; THE FIRST REPORT IS DUE **JANUARY 28, 2013**.

Outfall #002 – Irrigated Wastewater (Notes 4 & 5)

pH – Units	SU	***			once/year**	grab
Total Nitrogen as N	mg/L	*			once/year**	grab
Total Phosphorus as P	mg/L	*			once/year**	grab
Oil and Grease	mg/L	*			once/year**	grab
Sulfates	mg/L	*			once/year**	grab
Chloride	mg/L	250			once/year**	grab
Sodium	mg/L	*			once/year**	grab
Fluoride	mg/L	*			once/year**	grab

MONITORING REPORTS SHALL BE SUBMITTED **ANNUALLY**; THE FIRST REPORT IS DUE **JANUARY 28, 2013**. THERE SHALL BE NO DISCHARGE OF FLOATING OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.

B. STANDARD CONDITIONS

IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED Parts I & III STANDARD CONDITIONS DATED October 1, 1980 and August 15, 1994, AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS				PAGE NUMBER 5 of 9		
				PERMIT NUMBER MO-0121525		
The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective upon issuance and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:						
OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
Outfall #002 – Soil Monitoring from Land Application Sites (Note 5 and 6)						
pH – Units	SU	6.5-7.5			once/3 years	composite
Bray-P1 Test for Phosphorous	mg/L	*			once/3 years	composite
Sodium	mg/L	*			once/3 years	composite
Exchangeable Sodium Percentage	%	10			once/3 years	composite
Cation Exchange Capacity	CEC	*			once/3 years	composite
Organic Matter	%	*			once/3 years	composite
MONITORING REPORTS SHALL BE SUBMITTED ONCE PER THREE YEARS ; THE FIRST REPORT IS DUE JANUARY 28, 2015 . THERE SHALL BE NO DISCHARGE OF FLOATING OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						
B. STANDARD CONDITIONS						
IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED <u>Parts I & III</u> STANDARD CONDITIONS DATED <u>October 1, 1980 and August 15, 1994</u> , AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.						

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

* Monitoring requirement only.

** **Sampling shall occur once per year. Monitoring reports shall be submitted by January 28th following each monitoring year.**

*** pH is measured in pH units and is not to be averaged. The pH is to be maintained at or above 6.5 pH units.

Note 1 - No-discharge Facility requirements: Wastewater shall be stored and land applied during suitable conditions so that there is no-discharge from the lagoon or irrigation site. An emergency discharge may occur when excess wastewater has accumulated above feasible irrigation rates due to precipitation exceeding the 1-in-10 year 365 day rainfall or the 25-year-24-hour storm event.

Note 2 Records shall be maintained and summarized into an annual operating report, which shall be submitted by **January 28th** of each year for the previous calendar year. The report shall include the following:

- a. Record of maintenance and repairs during the year, average number of times per month the facility is checked to see if it is operating properly, and description of any unusual operating conditions encountered during the year;
- b. The number of days the lagoon has discharged during the year, the discharge flow, the reasons discharged occurred and effluent analysis performed; and
- c. A summary of the irrigation operations including freeboard at the start and end of the irrigation season, the number of days of irrigation for each month, the total gallons irrigated, the total acres used, crops grown, crop yields per acre, the application rate in inches per acre per day and for the year, the monthly and annual precipitation received at the facility and summary of testing results.

Note 3 – Lagoon freeboard shall be reported as lagoon water level in feet below the overflow level. See Special Conditions for Wastewater Irrigation System requirements.

Note 4 – Wastewater that is irrigated shall be sampled at the irrigation pump or wet well.

Note 5 – Composite samples shall be collected from each land application site in accordance with the following criteria: MU Guide G9217 (*Soil Sampling Hayfields and Row Crops*). Soil samples should be analyzed at soil testing laboratories accredited by the Missouri Soil Testing Association.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

Note 6 – Report the results in the Annual Report that is submitted to the Department on January 28th each year.

C. SPECIAL CONDITIONS

1. Emergency Discharge. Outfall #001 and #002 may only discharge if rainfall exceeds the 1 in 10 year (Data taken from the Missouri Climate Atlas) or the 24 hour, 25 year (Data taken from NRCS Urban Hydrology for Small Watersheds) rainfall events. **Discharge for any other reason shall constitute a permit violation and shall be recorded in accordance with Standard Conditions, Part 1, Section B.2.b.** Monitoring shall take place once per day while discharging. Test results are due on the 28th day of the month after the cessation of the discharge. Permittee shall monitor for the following constituents:

Constituent	Units
Flow	MGD
Biochemical Oxygen Demand ₅	mg/L
Total Suspended Solids	mg/l
Total Ammonia Nitrogen	mg/L
Temperature	°C
pH – Units	Standard Units

2. Report as no-discharge when a discharge does not occur during the reporting period.
3. This permit may be reopened and modified, or alternatively revoked and reissued, to:
- (a) Comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a) (2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:
 - (1) contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
 - (2) controls any pollutant not limited in the permit.
 - (b) Incorporate new or modified effluent limitations or other conditions, if the result of a waste load allocation study, toxicity test or other information indicates changes are necessary to assure compliance with Missouri’s Water Quality Standards.
 - (c) Incorporate new or modified effluent limitations or other conditions if, as the result of a watershed analysis, a Total Maximum Daily Load (TMDL) limitation is developed for the receiving waters which are currently included in Missouri’s list of waters of the state not fully achieving the state’s water quality standards, also called the 303(d) list.

The permit as modified or reissued under this paragraph shall also contain any other requirements of the Clean Water Act then applicable.

4. All outfalls must be clearly marked in the field.
5. Permittee will cease discharge by connection to a facility with an area-wide management plan per 10 CSR 20-6.010(3)(B) within 90 days of notice of its availability.
6. Water Quality Standards
- (a) Discharges to waters of the state shall not cause a violation of water quality standards rule under 10 CSR 20-7.031, including both specific and general criteria.
 - (b) General Criteria. The following general water quality criteria shall be applicable to all waters of the state at all times including mixing zones. No water contaminant, by itself or in combination with other substances, shall prevent the waters of the state from meeting the following conditions:
 - (1) Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses;
 - (2) Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses;
 - (3) Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses;
 - (4) Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life;
 - (5) There shall be no significant human health hazard from incidental contact with the water;
 - (6) There shall be no acute toxicity to livestock or wildlife watering;
 - (7) Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community;

C. SPECIAL CONDITIONS (continued)

- (8) Waters shall be free from used tires, car bodies, appliances, demolition debris, used vehicles or equipment and solid waste as defined in Missouri's Solid Waste Law, section 260.200, RSMo, except as the use of such materials is specifically permitted pursuant to section 260.200-260.247.

7. Changes in Discharges of Toxic Substances

The permittee shall notify the Director as soon as it knows or has reason to believe:

- (a) That any activity has occurred or will occur which would result in the discharge of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels:"
- (1) One hundred micrograms per liter (100 µg/L);
 - (2) Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2,5 dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
 - (3) Five (5) times the maximum concentration value reported for the pollutant in the permit application;
 - (4) The level established in Part A of the permit by the Director.
- (b) That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant, which was not reported in the permit application.
8. It is a violation of the Missouri Clean Water Law to fail to pay fees associated with this permit (644.055 RSMo).
9. The permittee shall comply with any applicable requirements listed in 10 CSR 20-9, unless the facility has received written notification that the Department has approved a modification to the requirements. The monitoring frequencies contained in this permit shall not be construed by the permittee as a modification of the monitoring frequencies listed in 10 CSR 20-9. If a modification of the monitoring frequencies listed in 10 CSR 20-9 is needed, the permittee shall submit a written request to the department for review and, if deemed necessary, approval.
10. Bypasses are not authorized at this facility and are subject to 40 CFR 122.41(m). If a bypass occurs, the permittee shall report in accordance to 40 CFR 122.41(m)(3)(i), and with Standard Condition Part I, Section B, subsection 2.b. Bypasses are to be reported to the Southwest Regional Office Regional Office.
11. A least one gate, constructed of materials comparable to the fence, must be provided to access the lagoon and provide for maintenance and mowing. The gate shall remain locked except when opened by the permittee to perform maintenance or mowing.
12. At least one sign shall appear on the fence on each side of each facility. Minimum wording shall be "SEWAGE TREATMENT FACILITY – KEEP OUT", in letters at least 2 inches high.
13. An Operation and Maintenance (O & M) manual shall be maintained by the permittee and made available to the operator. The O & M manual shall include key operating procedures and a brief summary of the operation of the facility.
14. The inner and outer berm slopes shall not be steeper than three to one (3:1). Inner berm slopes shall not be flatter than four to one (4:1). Consideration may be given to steeper inner slopes provided special attention is given to stabilizing the slope with rip-rap, concrete, or other rigid materials.
15. The berms of storage basins shall be mowed and kept free of any trees, muskrat dens, or other potential sources of damage to the berms.
16. An all-weather access road shall be provided from a public right-of-way to the treatment facility.
17. The discharge from the lagoon system shall be conveyed to the receiving stream via a closed pipe or a paved or rip-rapped open channel. Sheet or meandering drainage is not acceptable. The outfall sewer shall be protected against the effects of floodwater, ice or other hazards as to reasonably insure its structural stability and freedom from stoppage. The outfall shall be maintained so that a sample of the effluent can be obtained at a point after the final treatment process and before the discharge mixes with the receiving stream.
18. A minimum of two (2) feet freeboard must be maintained in the lagoon cell.

C. SPECIAL CONDITIONS (continued)

19. The facility shall ensure that adequate provisions are provided to prevent surface water intrusion in to the lagoon and to divert stormwater runoff around the lagoon and protect embankments from erosion.
20. Lagoons and earthen basins shall have a liner that is designed, constructed and maintained in accordance with 10 CSR 20-8.020(13)(A)4. If operating records indicate, excessive percolation, the Department may require a water balance test in accordance with 10 CSR 20-8.020(16) or other investigations to evaluate adequacy of the lagoon seal. The Department may require corrective action as necessary to eliminate excess leakage.
21. Wastewater Irrigation System
- (a) Discharge Reporting. Any unauthorized discharge from the lagoon or irrigation system shall be reported to the Department as soon as possible but always within 24 hours. Discharge is allowed only as described in the Facility Description and Effluent Limitations sections of this permit.
- (b) Irrigation Design. Permittee shall operate the land application system in accordance with 10 CSR 20-8.020(15). Permittee shall operate the land application system in accordance with the design parameters listed in the Facility Description section of this permit:
- (1) No-discharge System. When the Facility Description is “No-discharge”, wastewater must be stored and irrigated at appropriate times. There shall be no-discharge from the irrigation site or storage lagoon except due to precipitation exceeding either the 1-in-10 year rainfall event for the design storage period or the 25-year-24-hour rainfall event.
- (c) Lagoon Operating Levels – No-discharge Systems. The minimum and maximum operating water levels for the storage lagoon shall be clearly marked. Each lagoon shall be operated so that the maximum water elevation does not exceed one foot (1’) below the overflow point except due to any exceedance of the 1-in-10 year or 25-year-24-hour rainfall events. Wastewater shall be land applied whenever feasible based on soil and weather conditions and permit requirements. Storage lagoon(s) shall be lowered to the minimum operating level prior to each winter by November 30th.
- (d) Emergency Spillway. Lagoons and earthen storage basins should have an emergency spillway to protect the structural integrity of earthen structures during operation at near full water levels and in the event of overflow conditions. The spillway shall be at least one foot (1’) below the top of berm. The Department may waive the requirement for overflow structures on small existing basins.
- (e) General Irrigation Requirements. The wastewater irrigation system shall be operated so as to provide uniform distribution of irrigated wastewater over the entire irrigation site. A complete ground cover of vegetation shall be maintained on the irrigation site unless the system is approved for row crop irrigation. Wastewater shall be land applied only during daylight hours. The wastewater irrigation system shall be capable of irrigating the annual design flow during an application period of less than 100 days or 800 hours per year.
- (f) Saturated / Frozen Conditions. There shall be no irrigation during frozen, snow covered, or saturated soil conditions. There shall be no irrigation on days when more than 0.2 inches of precipitation is received or when there is observation by operator of an imminent or impending rainfall event.
- (g) Buffer Zones. There shall be no irrigation within 300 feet of any down gradient pond, lake, sinkhole, losing stream or water supply withdrawal; 100 feet of gaining streams or tributaries; 150 feet of dwellings; or 50 feet of the property line.
- (h) Public Access Restrictions. Public access shall not be allowed to the irrigation site(s). Fencing and public access restrictions to land application sites shall be in accordance with requirements in 10 CSR 20-8.020(15)(B)(5).
- (i) Equipment Checks During Irrigation. The irrigation system and application site shall be visually inspected at least once per day during wastewater irrigation to check for equipment malfunctions and runoff from the irrigation site.
- (j) Operation and Maintenance Manual. The permittee shall develop, maintain and implement an Operation and Maintenance (O&M) Manual that includes all necessary items to ensure the operation and integrity of the waste handling and land application systems. Copies of the O&M Manual and subsequent revisions shall be submitted to the Departments’ Water Pollution Control Program and the appropriate Regional Office for review and approval. The O&M Manual shall be reviewed and updated at least every five years.

C. SPECIAL CONDITIONS (continued)

- (k) Nitrogen Loading Rates. Wastewater irrigation rates shall not exceed a nitrogen application rate of 150 pounds total nitrogen per acre per year. The calculation procedures are as follows: $(\text{Total N}) \times (0.226) \times (\text{inches per acre irrigated}) = \text{pounds total N per acre}$. Where $\text{Total N} = [\text{Total Kjeldahl Nitrogen (TKN) as N}] + [\text{Nitrate Nitrogen as N}]$. If the applied wastewater exceeds 150 pounds total nitrogen per acre/year or if the applied wastewater exceeds ten (10) mg/L of nitrate nitrogen as N, the permittee must reduce the application rates or submit a revised permit application to request use of the Plant Available Nitrogen (PAN) method based on crop nitrogen requirements for harvested crops. PAN availability factors for surface application are: $[\text{Ammonia N} \times 0.6] + [\text{Nitrate N} \times 0.9] + [\text{Organic N} \times 0.6] = \text{PAN}$.

22. Nutrient Management

- (a) Nitrogen. The permittee shall not exceed the plant available nitrogen management approach as listed in this permit.
- (b) Phosphorus. When soil test phosphorus (P) levels are above 120 pounds per acres using Bray-P1 test method, the sludge application rate shall not exceed the annual crop requirements for available phosphorus in accordance with state NRCS guidelines. When state NRCS standards and guidelines become available, the permit will be revised to include the Phosphorus Threshold and Phosphorus Index methods to be developed under the USDA, NRCS National Policy, General Manual, Part 402.06.
- (c) The actual application rates for a given year or growing season must be adjusted based on the approved management approach and the actual sludge and soil testing results and crop requirement. If crop yields are less than that predicted in the permit application, the application rates must be reduced or the yields increased through appropriate changes in management practice.
- (d) This permit will be modified to require a Nutrient Management Plan (NMP) after promulgation of applicable state, EPA and USDA rules and guidelines. The NMP will replace the current PAN and phosphorus methods.

**Missouri Department of Natural Resources
Statement of Basis
Opie's Transport, Inc.
MSOP #: MO-0121525
Miller County**

A Statement of Basis (Statement) gives pertinent information regarding the applicable regulations and rationale for the development of the NPDES Missouri State Operating Permit (operating permit). This Statement includes Wasteload Allocations, Water Quality Based Effluent Limitations, and Reasonable Potential Analysis calculations as well as any other calculations that effect the effluent limitations of this operating permit. This Statement does not pertain to operating permits that include sewage sludge land application plans and variance procedures, and does not include the public comment process for this operating permit.

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

Part I – Facility Information

Facility Type: IND
Industrial Wastewater – SIC #4213

Facility Description: Two cell lagoon / sludge is retained in lagoon / effluent pumped to Outfall #002 for irrigation

OUTFALL(S) TABLE:

OUTFALL	DESIGN FLOW (CFS)	TREATMENT LEVEL	EFFLUENT TYPE	DISTANCE TO CLASSIFIED SEGMENT (MI)
001	No discharge	Primary	Industrial Wastewater (Emergency Discharge Only)	1.3
002	No discharge	Primary	Land Application of Industrial Wastewater	4.5

Receiving Water Body's Water Quality & Facility Performance History:

The facility has failed to submit annual and once per 3-year soil sample results.

This is for a renewal. The permit is also being modified to remove to Outfalls #003 and #004 for the land application site have also been removed. Land application sites are to be operated as no discharge sites, and stormwater data from the land application site showed minimal influence to stormwater runoff.

Comments: The facility was last inspected on October 30, 2003. The conditions of the facility at the time of inspection were found to be satisfactory.

This facility is a liquid food waste transporter. An industrial permit is required to discharge process wastewater.

Part II – Operator Certification Requirements

As per [10 CSR 20-6.010(8) Terms and Conditions of a Permit], permittees shall operate and maintain facilities to comply with the Missouri Clean Water Law and applicable permit conditions and regulations. Operators or supervisors of operations at regulated wastewater treatment facilities shall be certified in accordance with [10 CSR 20-9.020(2)] and any other applicable state law or regulation. As per [10 CSR 20-9.010(2)(A)], requirements for operation by certified personnel shall apply to all wastewater treatment systems, if applicable, as listed below:

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

Part III – Receiving Stream Information

APPLICABLE DESIGNATIONS OF WATERS OF THE STATE:

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

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

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

RECEIVING STREAM(S) TABLE:

WATERBODY NAME	CLASS	WBID	DESIGNATED USES*	8-DIGIT HUC	EDU**
Unnamed Tributary to Blythes Creek	U	N/A	General Criteria	10300102	Ozark/ Moreau/ Loutre
Blythes Creek	P	00993	AQL, LWW, SCR, WBC-B		
Unnamed Tributary to Brush Creek	U	N/A	General Criteria		
Brush Creek	C	00995	AQL, LWW, SCR, WBC-B		

* - Irrigation (IRR), Livestock & Wildlife Watering (LWW), Protection of Warm Water Aquatic Life and Human Health-Fish Consumption (AQL), Cool Water Fishery (CLF), Cold Water Fishery (CDF), Whole Body Contact Recreation (WBC), Secondary Contact Recreation (SCR), Drinking Water Supply (DWS), Industrial (IND).

** - Ecological Drainage Unit

RECEIVING STREAM(S) LOW-FLOW VALUES TABLE:

RECEIVING STREAM (U, C, P)	LOW-FLOW VALUES (CFS)		
	1Q10	7Q10	30Q10
Unnamed Tributary to Blythe Creek	0	0	0
Unnamed Tributary to Brush Creek	0	0	0

MIXING CONSIDERATIONS

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

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

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

ALTERNATIVE EVALUATIONS FOR NEW FACILITIES:

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

Not Applicable ;

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

ANTI-BACKSLIDING:

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

- All limits in this statement are at least as protective as those previously established; therefore, backsliding does not apply.

AREA-WIDE WASTE TREATMENT MANAGEMENT & CONTINUING AUTHORITY:

As per [10 CSR 20-6.010(8)(A)10.], when a Continuing Authority under paragraph 10 CSR 20-6.010(3)(B)1. or 2. is expected to be available for connection within the next five (5) years, any operating permit issued to a permittee under this paragraph, located within the service area of the paragraph (3)(B)1. or 2. facility, shall contain the following special condition... This language is contained in Special Condition #3 of this operating permit.

ANTIDegradation:

Policies which ensure protection of water quality for a particular water body where the water quality exceeds levels necessary to protect fish and wildlife propagation and recreation on and in the water. This also includes special protection of waters designated as outstanding natural resource waters. Antidegradation requirements are consistent with 40 CFR 131.12 that outlines methods used to assess activities that may impact the integrity of a water and protect existing uses. This policy may compel the state to maintain a level of water quality above those mandated by criteria.

Not Applicable ;

Renewal no degradation proposed and no further review necessary.

APPLICABLE PERMIT PARAMETERS:

Effluent parameters for conventional, non-conventional, and toxic pollutants have been obtained from the previous NPDES operating permit for this facility, technology based effluent limits, and from appropriate sections of the renewal application.

COMPLIANCE AND ENFORCEMENT:

Action taken by the Department to resolve violations of the Missouri Clean Water Law, its implementing regulations, and/or any terms and condition of an operating permit.

Not Applicable ;

The permittee/facility is not under enforcement action and is considered to be in compliance with the Missouri Clean Water Law, its implementing regulations, and/or any terms and condition of an operating permit.

PRETREATMENT PROGRAM:

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

Pretreatment programs are required at any POTW (or combination of POTW operated by the same authority) and/or municipality with a total design flow greater than 5.0 MGD and receiving industrial wastes that interfere with or pass through the treatment works or are otherwise subject to the pretreatment standards. Pretreatment programs can also be required at POTWs/municipals with a design flow less than 5.0 MGD if needed to prevent interference with operations or pass through.

Several special conditions pertaining to the permittee's pretreatment program may be included in the permit, and are as follows:

- Implementation and enforcement of the program,
- Annual pretreatment report submittal,
- Submittal of list of industrial users,
- Technical evaluation of need to establish local limitations, and
- Submittal of the results of the evaluation

Not Applicable ;

The permittee, at this time, is not required to have a Pretreatment Program or does not have an approved pretreatment program.

REASONABLE POTENTIAL ANALYSIS (RPA):

Limitations must control all pollutants or pollutant parameters that are or may be discharged at a level which will cause, have reasonable potential to cause, or contribute to an excursion above the Missouri Water Quality Standards.

Not Applicable ;

A RPA was not conducted for this facility.

REMOVAL EFFICIENCY:

Removal efficiency is a method by which the Federal Regulations define Secondary Treatment and Equivalent to Secondary Treatment, which applies to Biochemical Oxygen Demand 5-day (BOD₅) and Total Suspended Solids (TSS) for Publicly Owned Treatment Works (POTWs). Please see the United States Environmental Protection Agency's (EPA) website for interpretation of percent removal requirements for National Pollutant Discharge Elimination System Permit Application Requirements for Publicly Owned Treatment Works and Other Treatment Works Treating Domestic Sewage @ www.epa.gov/fedrgstr/EPA-WATER/1999/August/Day-04/w18866.htm

Not Applicable ;

This wastewater treatment facility is not a POTW. Influent monitoring is not being required to determine percent removal.

SANITARY SEWER OVERFLOWS (SSOs), BYPASSES, INFLOW & INFILTRATION (I&I) – PREVENTION/REDUCTION:

Sanitary Sewer Overflows (SSOs) are defined as an untreated or partially treated sewage release are considered bypassing under state regulation [10 CSR 20-2.010(11)] and should not be confused with the federal definition of bypass. SSO's have a variety of causes including blockages, line breaks, and sewer defects that allow excess storm water and ground water to (1) enter and overload the collection system, and (2) overload the treatment facility. Additionally, SSO's can be also be caused by lapses in sewer system operation and maintenance, inadequate sewer design and construction, power failures, and vandalism. SSOs also include overflows out of manholes and onto city streets, sidewalks, and other terrestrial locations.

Additionally, Missouri RSMo §644.026.1 mandates that the Department require proper maintenance and operation of treatment facilities and sewer systems and proper disposal of residual waste from all such facilities.

- Not applicable. This facility is not required to develop or implement a program for maintenance and repair of the collection system; however, it is a violation of Missouri State Environmental Laws and Regulations to allow untreated wastewater to discharge to waters of the state.

SCHEDULE OF COMPLIANCE (SOC):

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

Not Applicable ;

This permit does not contain a SOC.

STORM WATER POLLUTION PREVENTION PLAN (SWPPP):

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

In accordance with the EPA’s *Storm Water Management for Industrial Activities: Developing Pollution Prevention Plans and Best Management Practices* [EPA 832-R-92-006] (Storm Water Management), BMPs are measures or practices used to reduce the amount of pollution entering (regarding this operating permit) waters of the state. BMPs may take the form of a process, activity, or physical structure.

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

Not Applicable ;

At this time, the permittee is not required to develop and implement a SWPPP.

WASTELOAD ALLOCATIONS (WLA) FOR LIMITS:

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

Applicable ;

Wasteload allocations were calculated where applicable using water quality criteria or water quality model results and the dilution equation below:

$$C = \frac{(C_s \times Q_s) + (C_e \times Q_e)}{(Q_e + Q_s)} \quad (\text{EPA/505/2-90-001, Section 4.5.5})$$

- Where C = downstream concentration
- C_s = upstream concentration
- Q_s = upstream flow
- C_e = effluent concentration
- Q_e = effluent flow

Chronic wasteload allocations were determined using applicable chronic water quality criteria (CCC: criteria continuous concentration) and stream volume of flow at the edge of the mixing zone (MZ). Acute wasteload allocations were determined using applicable water quality criteria (CMC: criteria maximum concentration) and stream volume of flow at the edge of the zone of initial dilution (ZID).

Water quality based maximum daily and average monthly effluent limitations were calculated using methods and procedures outlined in USEPA's "Technical Support Document For Water Quality-based Toxics Control" (EPA/505/2-90-001).

Not Applicable ;

Wasteload allocations were not calculated.

WLA MODELING:

Not Applicable ;

A WLA study was either not submitted or determined not applicable by Department staff.

WATER QUALITY STANDARDS:

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

WHOLE EFFLUENT TOXICITY (WET) TEST:

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

Applicable ;

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

Not Applicable ;

At this time, the permittee is not required to conduct WET test for this facility.

40 CFR 122.41(m) - Bypasses:

The federal Clean Water Act (CWA), Section 402 prohibits wastewater dischargers from "bypassing" untreated or partially treated sewage (wastewater) beyond the headworks. A bypass, which includes blending, is defined as an intentional diversion of waste streams from any portion of a treatment facility, [40 CFR 122.41(m)(1)(i)]. Additionally, Missouri regulation 10 CSR 20-2.010(11) defines a bypass as the diversion of wastewater from any portion of wastewater treatment facility or sewer system to waters of the state. Only under exceptional and specified limitations do the federal regulations allow for a facility to bypass some or all of the flow from its treatment process. Bypasses are prohibited by the CWA unless a permittee can meet all of the criteria listed in 40 CFR 122.41(m)(4)(i)(A), (B), & (C). Any bypasses from this facility are subject to the reporting required in 40 CFR 122.41(l)(6) and per Missouri's Standard Conditions I, Section B, part 2.b. Additionally, Anticipated Bypasses include bypasses from peak flow basins or similar.

- Not Applicable, this facility does not bypass.

303(d) LIST & TOTAL MAXIMUM DAILY LOAD (TMDL):

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

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

Not Applicable ;

This facility does not discharge to a 303(d) listed stream.

Adjusted Design Flow:

10 CSR 20-6.011(1)(B)1. provides for an Adjusted Design Flow when calculating permit fees on human sewage treatment facilities. If the average flow is sixty percent (60%) or less than the system's design flow, the average flow may be substituted for the design flow when calculating the permit fee on human sewage treatment facilities. If the facility's actual average flow is consistently 60% or less than the permitted design flow, the facility may qualify for a reduction in your fee when:

- The facility has a valid permit, or has applied for re-issuance, is in compliance with the terms, conditions and effluent limitations of the permit, and the facility has a good compliance history; and
- Flow is not expected to exceed 60% of design flow for the remaining term of the existing operating permit.

Not Applicable ;

Municipalities, POTWs, and Industrials do not qualify for Adjusted Design flows.

Outfall #002 – Storage Basin

EFFLUENT LIMITATIONS TABLE:

PARAMETER	UNIT	BASIS FOR LIMITS	DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MODIFIED	PREVIOUS PERMIT LIMITATIONS
LAGOON FREEBOARD	FEET	1	**		**	NO	S
RAINFALL	INCHES	9	**		**	NO	S
MONITORING FREQUENCY	Please see Minimum Sampling and Reporting Frequency Requirements in the Derivation and Discussion Section below.						

* - Discharge for reasons other than those allowed in the permit will constitute a violation. Monitoring requirement only.

** - Monitoring Only

N/A - Not applicable

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

DERIVATION AND DISCUSSION OF LIMITS:

Lagoon Freeboard – the freeboard has to be maintained at 2 feet, therefore monitoring is required.

Rainfall – The lagoon is built to take into account the precipitation it receives as well as to determine if a discharge from the lagoon meets the exception of 1 in 10 year ran event or 24 hour 25 year rain event, monitoring is required.

The lagoon (Outfall #001 and #002) may only discharge if rainfall exceeds the 1 in 10 year (Data taken from the Missouri Climate Atlas) or the 24 hour, 25 year (Data taken from NRCS Urban Hydrology for Small Watersheds) rainfall events. **Discharge for any other reason shall constitute a permit violation and shall be recorded in accordance with Standard Conditions, Part 1, Section B.2.b.** Monitoring shall take place once per day while discharging. Test results are due on the 28th day of the month after the cessation of the discharge. Permittee shall monitor for the following constituents:

Constituent	Units
Flow	MGD
Biochemical Oxygen Demand ₅	mg/L
Total Suspended Solids	mg/l
Total Ammonia Nitrogen	mg/L
Temperature	°C
pH – Units	Standard Units

These constituents are present in wastewater and will aid in determining any water quality violations to the receiving stream.

Minimum Sampling and Reporting Frequency Requirements #001 and #002: Permittee shall notify the Southwest Regional Office immediately when a discharge begins and when the discharge ceases.

Outfall #002- Land Application Site

EFFLUENT LIMITATIONS TABLE:

PARAMETER	UNIT	BASIS FOR LIMITS	DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MODIFIED	PREVIOUS PERMIT LIMITATIONS
IRRIGATION PERIOD	HOURS	1	**		**	NO	**
VOLUME IRRIGATED	GALLONS	1	**		**	NO	**
APPLICATION AREA	ACRES	1	**		**	NO	**
APPLICATION RATE	INCHES/ACRE	1	**		**	NO	**
MONITORING FREQUENCY	Please see Minimum Sampling and Reporting Frequency Requirements in the Derivation and Discussion Section below.						

** - Monitoring Only

Minimum Sampling and Reporting Frequency Requirements: Daily sampling is required for land application operational monitoring.

PARAMETER	UNIT	BASIS FOR LIMITS	DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MODIFIED	PREVIOUS PERMIT LIMITATIONS
TOTAL KJELDAHL NITROGEN AS N	MG/L	-	-			REMOVED	**
NITRATE PLUS NITRITE AS N	MG/L	-	-			REMOVED	**
TOTAL NITROGEN AS N	MG/L		**			YES	***
TOTAL PHOSPHORUS	MG/L	9	**			NO	S
CHEMICAL OXYGEN DEMAND	MG/L	-	-			REMOVED	**
PH (S.U.)	SU	1	ABOVE 6.5			YES	ABOVE 6.0
AMMONIA AS N	MG/L	9	-			REMOVED	**
OIL AND GREASE	MG/L	9	**			NO	S
SULFATES	MG/L	9	**			NO	S
CHLORIDE	MG/L	9	250			NO	S
SODIUM	MG/L	9	**			NO	S
FLUORIDE	MG/L	9	**			YES	***
TEMPERATURE	°C	-	-			REMOVED	***

** - Monitoring Only

*** - Parameter not previously established.

Basis for Limitations Codes:

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

DERIVATION AND DISCUSSION OF LIMITS:

OUTFALL #002 – IRRIGATED WASTEWATER

Total Nitrogen and Total Phosphorus:

Monitoring only to ensure the nutrients added will not exceed the plant uptake and to ensure the Nitrogen loading stays below 150 pounds per acre per year and the Total Phosphorus stays under 120 pounds per acre per year. The Irrigated Wastewater monitoring is necessary to determine Phosphorus and Nitrogen loading for the plants.

Total Kjeldahl Nitrogen, Ammonia as N, Nitrate plus Nitrite as N: Monitoring requirement removed; parameters replaced with Total Nitrogen monitoring. Due to the nature of the wastewater land applied, and after reviewing nitrogen compound data results for the irrigated wastewater submitted date, nitrogen loading is low for this facility.

Oil and Grease. Monitoring required because oil and grease is known to be present in land applied wastewater and this is a conventional pollutant. If effluent limitations are imposed, the limit for protection of aquatic life is 10 mg/L monthly average and 15 mg/L daily maximum.

Sodium. Monitoring required because sodium is known to be present in the land applied wastewater. Data will be reviewed upon renewal to determine if a limit is needed.

Sulfate. Monitoring required because sulfate is known to be present in the land applied wastewater. Data will be reviewed upon renewal to determine if a limit is needed.

Fluoride. Monitoring required because fluoride is known to be present in the land applied wastewater. Data will be reviewed upon renewal to determine if a limit is needed.

Chloride. Chloride is known to be present in the land applied wastewater. Limit of 250 mg/L retained from previous operating permit.

Minimum Sampling and Reporting Frequency Requirements: Once per year sampling, and annual reporting, is being required due to the smaller flows. Based on the DMRs submitted by the facility to date, the facility only irrigates once per year.

Outfall #002- Soil Sampling of Land Application Sites

PARAMETER	UNIT	BASIS FOR LIMITS	DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MODIFIED	PREVIOUS PERMIT LIMITATIONS
AMMONIA AS N	MG/KG	-	-			REMOVED	**
NITRATE PLUS NITRITE AS N	MG/KG	-	-			REMOVED	**
OIL AND GREASE	MG/KG	-	-			REMOVED	**
PH (S.U.)	SU	9	6.5-7.5			YES	6.0-7.5
BRAY-PI TEST FOR PHOSPHORUS	MG/KG	9	**			NO	S
SODIUM	MG/KG	9	**			NO	S
EXCHANGEABLE SODIUM PERCENTAGE	%	9	10			NO	S
CATION EXCHANGE CAPACITY	CEC	9	**			NO	S
ORGANIC MATTER	%	9	**			NO	S

OUTFALL #002 – SOIL SAMPLING

Ammonia as N and Nitrate/Nitrite as N: Monitoring requirement removed.

pH. Soil pH should be maintained between 6.5 and 7.5. Monitoring requirement retained based on best professional judgment of Permit Writer.

Bray-P1 Test for Phosphorous. Monitoring requirement retained based on best professional judgment of Permit Writer. This is a typical soil monitoring requirement for land application sites to ensure proper nutrient management.

Sodium. Monitoring requirement retained based on best professional judgment of Permit Writer. Sodium is present in the irrigated wastewater and monitoring is required to ensure excessive sodium is not being added to the soils.

Exchangeable Sodium Percentage. Limit of 10% exchangeable sodium is being retained based on best professional judgment of Permit Writer and consultation with staff soil scientist. The wastewater irrigated contains sodium and monitoring for ESP aims to prevent sodic conditions that can adversely affect plant growth.

Cation Exchange Capacity. Monitoring requirement retained based on best professional judgment of Permit Writer. This is a typical soil monitoring requirement for land application sites to ensure proper nutrient management.

Organic Matter. Monitoring requirement retained based on best professional judgment of Permit Writer. This is a typical soil monitoring requirement for land application sites to ensure proper nutrient management.

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:

This permit was originally placed on public notice on December 16, 2011, but was withdrawn under threat of objection by the U.S. EPA. EPA had concerns about changes that had been made in the language protecting Missouri's Narrative Water Quality Standards. The change had been made in an attempt to accommodate recent changes in Missouri's Statutes. EPA found the new language deficient. This permit is being placed back on to public notice, with the previous version of the Narrative Criteria protection.

Date of Factsheet: December 16, 2011 (*Modified December 27, 2011*)

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