

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-0054038

Owner: Mr. Floyd J. Hatfield
Address: 1218 Hendricks Drive, Mexico, MO 65265

Continuing Authority: Same as above
Address: Same as above

Facility Name: Elmwood Mobile Home Park
Facility Address: 101 North Elmwood Drive, Mexico, MO 65265

Legal Description: SE ¼, NE ¼, NW ¼, Sec. 27, T51N, R9W, Audrain County
Latitude/Longitude: +3910312/-09154299

Receiving Stream: Unnamed tributary to Davis Creek (U)
First Classified Stream and ID: Davis Creek (C) (00144)
USGS Basin & Sub-watershed No.: (07110006-040002)

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 – Mobile Home Park– SIC #6515/#4952 – **No Certified Operator Required.**

Three-cell lagoon/sludge retained in lagoon.
Design population equivalent is 140.
Design flow is 14,000 gallons per day.
Actual flow is 2,900 gallons per day.
Design sludge production is 2.1 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.

October 30, 2009
Effective Date

Mark N. Templeton, Director
Department of Natural Resources

October 29, 2014
Expiration Date

Irene Crawford
Regional Director, Northeast Regional Office

The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The interim effluent limitations shall become effective upon issuance and remain in effect until October 31, 2012. Such discharges shall be controlled, limited and monitored by the permittee as specified below:

| OUTFALL NUMBER AND EFFLUENT PARAMETER(S) | UNITS | INTERIM EFFLUENT LIMITATIONS | | | MONITORING REQUIREMENTS | |
|--|---------|------------------------------|----------------|-----------------|-------------------------|-----------------|
| | | DAILY MAXIMUM | WEEKLY AVERAGE | MONTHLY AVERAGE | MEASUREMENT FREQUENCY | SAMPLE TYPE |
| <u>Outfall #001</u> | | | | | | |
| Flow | MGD | * | | * | once/quarter** | 24 hr. estimate |
| Biochemical Oxygen Demand ₅ | mg/L | | 65 | 45 | once/quarter** | grab |
| Total Suspended Solids | mg/L | | 120 | 80 | once/quarter** | grab |
| pH – Units | SU | *** | | *** | once/quarter** | grab |
| Ammonia as N | mg/L | * | | * | once/quarter** | grab |
| Temperature | °C | * | | * | once/quarter** | grab |
| Fecal Coliform (Note 1) | #/100mL | * | | * | once/quarter** | grab |

MONITORING REPORTS SHALL BE SUBMITTED QUARTERLY; THE FIRST REPORT IS DUE JANUARY 28, 2010. THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS 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.

MO 780-0010 (8/91)

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

- * Monitoring requirement only.
- ** See table below for quarterly sampling.
- *** pH is measured in pH units and is not to be averaged. The pH is to be maintained at or above 6.0 pH units.

Note 1 - Final limitations and monitoring requirements for Fecal Coliform are applicable only during the recreational season from April 1 through October 31. The Monthly Average Limit for Fecal Coliform is a geometric mean.

| Sample discharge at least once for the months of: | Report is due: |
|---|-----------------------------|
| January, February, or March | (1st Quarter) April 28 |
| April, May, or June | (2nd Quarter) July 28 |
| July, August, or September | (3rd Quarter) October 28 |
| October, November, or December | (4th Quarter) January 28 |

| A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS | | | | | PAGE NUMBER 3 of 5 | |
|--|---------|----------------------------|----------------|-----------------|--------------------------|-----------------|
| | | | | | PERMIT NUMBER MO-0054038 | |
| 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 <u>November 1, 2012</u> 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 #001</u> | | | | | | |
| Flow | MGD | * | | * | once/quarter** | 24 hr. estimate |
| Biochemical Oxygen Demand ₅ | mg/L | | 65 | 45 | once/quarter** | grab |
| Total Suspended Solids | mg/L | | 120 | 80 | once/quarter** | grab |
| pH – Units | SU | *** | | *** | once/quarter** | grab |
| Ammonia as N | mg/L | * | | * | once/quarter** | grab |
| Temperature | °C | * | | * | once/quarter** | grab |
| Fecal Coliform (Note 1) | #/100mL | 1000 | | 400 | once/quarter** | grab |
| MONITORING REPORTS SHALL BE SUBMITTED <u>QUARTERLY</u> ; THE FIRST REPORT IS DUE <u>JANUARY 28, 2013</u> . THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS 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. | | | | | | |

MO 780-0010 (8/91)

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

- * Monitoring requirement only.
- ** See table below for quarterly sampling.
- *** pH is measured in pH units and is not to be averaged. The pH is to be maintained at or above 6.0 pH units.

Note 1 - Final limitations and monitoring requirements for Fecal Coliform are applicable only during the recreational season from April 1 through October 31. The Monthly Average Limit for Fecal Coliform is a geometric mean.

| | |
|---|----------------|
| Sample discharge at least once for the months of: | Report is due: |
| January, February, or March (1st Quarter) | April 28 |
| April, May, or June (2nd Quarter) | July 28 |
| July, August, or September (3rd Quarter) | October 28 |
| October, November, or December (4th Quarter) | January 28 |

C. SPECIAL CONDITIONS

1. 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.

C. SPECIAL CONDITIONS (continued)

2. All outfalls must be clearly marked in the field.
3. Permittee will cease discharge by connection to a facility with an area-wide management plan per [10 CSR 20-6.010(3)(B)1 or 2] within 90 days of notice of its availability. The permittee shall obtain department approval for closure or alternate use of the facility.
4. 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.
5. Report as no-discharge when a discharge does not occur during the report period.
 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;
 - (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. Sludge and Biosolids Use For Domestic Wastewater Treatment Facilities
 - (a) Permittee shall comply with the pollutant limitations, monitoring, reporting, and other requirements in accordance with the attached permit Standard Conditions.
 - (b) If sludge is not removed by a contract hauler, permittee is authorized to land apply biosolids. Permit Standard Conditions, Part III shall apply to the land application of biosolids. Permittee shall notify the department at least 180 days prior to the planned removal of biosolids. The department may require submittal of a biosolids management plan for department review and approval as determined appropriate on a case-by-case basis.
 8. The permittee shall comply with any applicable requirements listed in 10 CSR 20-8 and 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.

D. SCHEDULE OF COMPLIANCE

The final limits for fecal coliform shall become effective within three years in accordance with the conditions below, or on December 31, 2013, whichever comes first.

1. Within one year from the issuance of the permit, the permittee shall submit a construction permit application and an activity schedule toward meeting the disinfection requirement.
2. The facility shall submit an interim progress report within twelve months if the construction completion and operation of the disinfection equipment will be more than 1 year.
3. If the permittee will fail to meet any of the interim dates above, the permittee shall notify the Department in writing of the reason for non compliance no later than 14 days following each interim date.
4. Upon completion of construction, the permittee shall submit a Statement of Work complete, signed by the owner and licensed professional engineer in the state of Missouri.

PERMIT TRANSFER

This permit may be transferred to a new owner by submitting an "Application for Transfer of Operating Permit" signed by the seller and buyer of the facility, along with the appropriate modification fee.

PERMIT RENEWAL REQUIREMENTS

Unless this permit is terminated, the permittee shall submit an application for the renewal of this permit no later than six (6) months prior to the permit's expiration date. Failure to apply for renewal may result in termination of this permit and enforcement action to compel compliance with this condition and the Missouri Clean Water Law.

TERMINATION

In order to terminate this permit, the permittee shall notify the department by submitting Form J, included with the State Operating Permit. The permittee shall complete Form J and mail it to the department at the address noted in the cover letter of this permit. Proper closure of any storage structure is required prior to permit termination. A closure plan shall be submitted to the department and approved prior to initiating closure activities.

DUTY OF COMPLIANCE

The permittee shall comply with all conditions of this permit. Any noncompliance with this permit constitutes a violation of Chapter 644, Missouri Clean Water Law, and 10 CSR 20-6. Noncompliance may result in enforcement action, termination of this authorization, or denial of the permittee's request for renewal. This permit authorizes only the activities described in this permit.

Missouri Department of Natural Resources
Statement of Basis
Elmwood Mobile Home Park
MO-0054038

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: NON-POTW – Mobile Home Park

Facility SIC Code(s): #6515/#4952

Facility Description: The facility consists of a three-cell lagoon with the sludge retained in the lagoon. The design population equivalent is 140. The design flow is 14,000 gallons per day. A file review found that the facility has an original design flow of 14,000 gallons per day as opposed to the 5,000 gallons per day listed on the previous permit. The actual flow is 2,900 gallons per day based on water use records multiplied by a factor of 1.3 for inflow and infiltration. The design sludge production is 2.1 dry tons/year.

OUTFALL(S) TABLE:

| OUTFALL | DESIGN FLOW (GPD) | TREATMENT LEVEL | EFFLUENT TYPE | DISTANCE TO CLASSIFIED SEGMENT (MI) |
|---------|---------------------|-------------------------|---------------------|-------------------------------------|
| #001 | 14,000 4,999 ADF | Equivalent to secondary | Domestic wastewater | ~ 0.9 |

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

No low flow studies or stream surveys have been conducted at the facility. A basin inventory showed the facility had no apparent impact in January 2004. The facility is missing two discharge monitoring reports for the last permit cycle; all submitted discharge monitoring reports show no violations of permit limits.

Comments:

The facility was not in compliance when it was last inspected on January 22, 2009. Compliance issues include failure to submit timely, accurate and complete discharge monitoring reports; failed to clearly mark outfall in the field; failed to apply for renewal of operating permit at least 180 days prior to expiration of current permit; failed to provide proper warning signs on all sides of the perimeter fence; and failed to maintain the inner berm slopes of the lagoon. The facility has not returned to compliance as of the writing of this statement of basis.

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. When 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. If the facility's actual average flow is consistently 60 percent or less than the permitted design flow, the facility may qualify for a fee reduction:

- 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.

Water use method for computing Adjusted Design Flow is Actual Water Use in gpd times a factor of 1.3. Based upon the submitted water meter readings the facility used 2,210 gallons per day (gpd) on average.

2,210 x 1.3 = 2,873 gpd average flow. Design flow = 14,000 gpd x 60% = 8,400 gpd maximum adjusted design flow.

$$2,873 \text{ gpd} < 4,999 \text{ gpd} < 8,400 \text{ gpd.}$$

Based on the facility’s compliance status and/or the information provided, the facility is **NOT APPROVED** for an Adjusted Design Flow of 4,999 gallons per day, because the facility has not returned to compliance from when it was last inspected on January 22, 2009.

Part II A – Operator Certification Requirements

As per [10 CSR 20-9.020(2)(A)], this facility is not required to have a certified operator.

Part II B – Operational Monitoring

As per [10 CSR 20-9.010(4)], this facility is not required to conduct operational monitoring.

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 Davis Creek | U | N/A | General Criteria | 07110006 | Central Plains /Cuivre/Salt |
| Davis Creek | C | 00144 | LWW, AQL, WBC*** | | |

* - 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), Groundwater (GRW).

** - Ecological Drainage Unit.

*** - UAA conducted in 2005 and WBCR was designated in 2005.

N/A – Not Applicable.

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

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.

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

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.

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 permittee/facility is not currently under Water Protection Program enforcement action.

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)/municipals. 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 at 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 Systems (SSSs) are municipal wastewater collection system that convey domestic, commercial, and industrial wastewater, and limited amounts of infiltrated groundwater and storm water (i.e. I&I), to a POTW. SSSs are not designed to collect large amounts of storm water runoff from precipitation events.

Untreated or partially treated discharges from SSSs are commonly referred to as SSOs. SSOs have a variety of causes including blockages, line breaks, sewer defects that allow excess storm water and ground water to overload the system, lapses in sewer system operation and maintenance, inadequate sewer design and construction, power failures, and vandalism. A SSOs is defined as an untreated or partially treated sewage release from a SSS. SSOs can occur at any point in an SSS, during dry weather or wet weather. SSOs include overflows that reach waters of the state. SSOs also include overflows out of manholes and onto city streets, sidewalks, and other terrestrial locations. SSSs can back up into buildings, including private residences. When sewage backups are caused by problems in the publicly-owned portion of an SSS, they are considered SSOs.

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.

Applicable - A schedule of compliance is being given for Fecal Coliform final limits. The time given for effluent limitations of this permit listed under Interim Effluent Limitation and Final Effluent Limitations were established in accordance with [10 CSR 20-7.031(10)] and [10 CSR 20-7.015(9)(H)].

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.

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.

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

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.

Part V – EFFLUENT LIMITS DETERMINATION

Outfall #001 – Main Facility Outfall

EFFLUENT LIMITATIONS TABLE:

| PARAMETER | UNIT | BASIS FOR LIMITS | DAILY MAXIMUM | WEEKLY AVERAGE | MONTHLY AVERAGE | MODIFIED | PREVIOUS PERMIT LIMITATIONS |
|--|--|------------------|---|----------------|-----------------|----------|-----------------------------|
| Flow | MGD | 1 | * | | * | NO | S |
| Biochemical Oxygen Demand ₅ | mg/L | 1/4 | | 65 | 45 | NO | S |
| Total Suspended Solids | mg/L | 1/4 | | 120 | 80 | NO | S |
| pH | SU | 1/4 | ≥ 6 | | ≥ 6 | NO | S |
| Temperature | °C | 1/5/9 | * | | * | N/A | ** |
| Ammonia as N | mg/L | 2/5/9 | * | | * | N/A | ** |
| Fecal Coliform | *** | 1/2 | * | | * | N/A | ** |
| Fecal Coliform | *** | 1/2 | 1000 | | 400 | YES | * |
| Escherichia coli | *** | 1/2 | Please see Escherichia Coli (E. coli) in the Derivation and Discussion Section below. | | | | |
| Monitoring Frequency | Please see Minimum Sampling and Reporting Frequency Requirements in the Derivation and Discussion Section below. | | | | | | |

- * - Monitoring requirement only
- ** - Parameter was not established in previous state operating permit.
- *** - # of colonies/100mL; the Monthly Average is a geometric mean.
- N/A – Not applicable
- S – Same as previous operating permit

Basis for Limitations Codes:

- | | |
|---|---|
| <ul style="list-style-type: none"> 1. State or Federal Regulation/Law 2. Water Quality Standard (includes RPA) 3. Water Quality Based Effluent Limits 4. Lagoon Policy 5. Ammonia Policy | <ul style="list-style-type: none"> 6. Dissolved Oxygen Policy 7. Antidegradation Policy 8. Water Quality Model 9. Best Professional Judgment 10. TMDL or Permit in lieu of TMDL 11. WET test Policy |
|---|---|

- **Flow.** In accordance with [40 CFR Part 122.44(i)(1)(ii)] the volume of effluent discharged from each outfall is needed to assure compliance with permitted effluent limitations. If the permittee is unable to obtain effluent flow, then it is the responsibility of the permittee to inform the department, which may require the submittal of an operating permit modification.
- **Biochemical Oxygen Demand (BOD₅).** Effluent limitations from the previous state operating permit have been reassessed and verified that they are still protective of the receiving stream’s Water Quality. Therefore, effluent limitations have been retained from previous state operating permit. [10 CSR 20-7.015(8)(B)3.A]

- **Total Suspended Solids (TSS).** Effluent limitations from the previous state operating permit have been reassessed and verified that they are still protective of the receiving stream’s Water Quality. Therefore, effluent limitations have been retained from previous state operating permit. [10 CSR 20-7.015(8)(B)3.A]
- **pH.** Effluent limitations have been retained from previous state operating permit. [10 CSR 20-7.015(8)(B)3.A]
- **Temperature.** Monitoring requirement due to the toxicity of Ammonia varies by temperature. [10 CSR 20-7.031(4)(B)7]
- **Total Ammonia Nitrogen.** Monitoring requirement only. Monitoring for temperature and ammonia are included to determine whether “reasonable potential” to exceed water quality standards exists after the discharge begins. [10 CSR 20-7.031(4)(B)7]
- **Escherichia coli (E. coli).** This facility may be required to have *E. coli* effluent limitations when Missouri adopts the implementation of the *E. coli* standards, as per [10 CSR 20-7.031(4)(C)].
- **Fecal Coliform.** Discharge shall not contain more than a monthly geometric mean of 400 colonies/100 mL and a daily maximum of 1000 colonies/100 mL during the recreational season (April 1 – October 31). [10 CSR 20-7.015(8)(B)4.A] Future renewals of the facility operating permit will contain effluent limitations for *E. coli*, which will replace fecal coliform as the applicable bacteria criteria in Missouri’s water quality standards.
- **Minimum Sampling and Reporting Frequency Requirements.** Sampling and reporting frequency requirements have increased from the previous state operating permit. Annual testing of effluent does not provide enough data to ensure the facility is meeting permit limitations throughout the entire year. Quarterly sampling provides data to show the facility is meeting limits through seasonal changes.

| PARAMETER | SAMPLING FREQUENCY | REPORTING FREQUENCY |
|--|--------------------|---------------------|
| Flow | once/quarter | once/quarter |
| Biochemical Oxygen Demand ₅ | once/quarter | once/quarter |
| Total Suspended Solids | once/quarter | once/quarter |
| pH | once/quarter | once/quarter |
| Temperature | once/quarter | once/quarter |
| Ammonia as N | once/quarter | once/quarter |
| Fecal Coliform | once/quarter | once/quarter |

Part VI – Administrative Requirements

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

Date of Statement of Basis: July 17, 2009
Date of Public Notice: September 18, 2009

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 Date

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 Date