

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-0136069

Owner: City of Kansas City, Missouri – Aviation Department
Address: 601 Brasilia Avenue, Kansas City, MO 64153

Continuing Authority: Same as above
Address: Same as above

Facility Name: Central Utility Plant (CUP) – Facility Operations Services
Facility Address: 9200 Northwest 112th Street, Kansas City, MO 64153

Legal Description: SW ¼, SW ¼, Sec. 23, T52N, R34W, Platte County
Latitude/Longitude: See page two

Receiving Stream: Unnamed Tributary to Todd Creek (U)
First Classified Stream and ID: Todd Creek (C) (00316)
USGS Basin & Sub-watershed No.: (10240012 – 120002)

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

FACILITY DESCRIPTION

All Outfalls – Utility Plant – SIC #4961 – **No certified operator required**
Non-contact cooling water/boiler blowdown/stormwater runoff

See page two for outfall details.

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 9, 2009
Effective Date


Mark N. Templeton, Director, Department of Natural Resources

October 8, 2014
Expiration Date
MO 780-0041 (10-93)


Karl Fett, Director, Kansas City Regional Office

FACILITY DESCRIPTION (continued)

Outfall #001

Boiler blowdown/stormwater runoff

Legal Description: SW ¼, SW ¼, Sec. 23, T52N, R34W, Platte County

Latitude/Longitude: +3917506/-09441372

Receiving Stream: Unnamed Tributary to Todd Creek (U)

First Classified Stream and ID: Todd Creek (C) (00316)

USGS Basin & Sub-watershed No.: (10240012 – 120002)

Outfall #002

Non-contact cooling water/stormwater runoff

Legal Description: SW ¼, SW ¼, Sec. 23, T52N, R34W, Platte County

Latitude/Longitude: +3917516/-09441369

Receiving Stream: Unnamed Tributary to Todd Creek (U)

First Classified Stream and ID: Todd Creek (C) (00316)

USGS Basin & Sub-watershed No.: (10240012 – 120002)

Outfall #003

Boiler blowdown/non-contact cooling water/stormwater runoff

Legal Description: SW ¼, SW ¼, Sec. 23, T52N, R34W, Platte County

Latitude/Longitude: +3918001/-09441355

Receiving Stream: Unnamed Tributary to Todd Creek (U)

First Classified Stream and ID: Todd Creek (C) (00316)

USGS Basin & Sub-watershed No.: (10240012 – 120002)

| A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS | | | | | PAGE NUMBER 3 of 6 | |
|--|-----------------|----------------------------|-------------------|--------------------|--------------------------|------------------|
| | | | | | PERMIT NUMBER MO-0136069 | |
| 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>Outfalls #001 & #002</u> | | | | | | |
| Flow | MGD | * | | * | once/quarter** | 24 hour estimate |
| Total Suspended Solids | mg/L | 70 | | 50 | once/quarter** | grab |
| pH – Units | SU | *** | | *** | once/quarter** | grab |
| Oil & Grease | mg/L | 15 | | 10 | once/quarter** | grab |
| Total Petroleum Hydrocarbons | mg/L | 10 | | 10 | once/quarter** | grab |
| Total Residual Chlorine | mg/L | * | | * | once/quarter** | grab |
| Copper, Total Recoverable | µg/L | * | | * | once/quarter** | grab |
| Specific Conductivity | µS/cm @ 25°C | * | | * | once/quarter** | grab |
| <u>Outfall #003</u> | | | | | | |
| Temperature (Note 1) | °F | 90° | | | once/quarter** | grab |
| MONITORING REPORTS SHALL BE SUBMITTED <u>QUARTERLY</u> ; THE FIRST REPORT IS DUE <u>JANUARY 28, 2010</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>Part I</u> STANDARD CONDITIONS DATED <u>October 1, 1980</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.

** Sample once per quarter in the months that a discharge occurs. (See table below for reporting details)

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

*** pH is measured in pH units and is not to be averaged. The pH is limited to the range of 6.5-9.0 pH units.

Note 1 Outfall #003 is the combined surface discharge of Outfalls #001 & #002 and is to be used only as a temperature monitoring point. Temperature measurements shall be taken at a time when the discharge is not influenced by stormwater.

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.

2. All outfalls must be clearly marked in the field.
3. 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.
 - (c) That the effluent limit established in part A of the permit will be exceeded.
4. Report as no-discharge when a discharge does not occur during the report period.
 5. 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.

C. SPECIAL CONDITIONS (continued)

6. The permittee shall develop and implement a Storm Water Pollution Prevention Plan (SWPPP). The SWPPP must be prepared within 30 days and implemented within 90 days of permit issuance. The SWPPP must be kept on-site and should not be sent to DNR unless specifically requested. The SWPPP must be reviewed and updated, if needed, every five (5) years or as site conditions change. The permittee shall select, install, use, operate, and maintain the Best Management Practices prescribed in the SWPPP in accordance with the concepts and methods described in the following document:

Storm Water Management For Industrial Activities, Developing Pollution Prevention Plans and Best Management Activities, (Document number EPA 832-R-92-006) published by the United States Environmental Protection Agency (USEPA) in September 1992.

The SWPPP must include the following:

- (a) A listing of specific Best Management Practices (BMPs) and a narrative explaining how BMPs will be implemented to control and minimize the amount of potential contaminants that may enter storm water. Minimum BMPs are listed in SPECIAL CONDITIONS #7 below.
 - (b) The SWPPP must include a schedule for a site inspection twice per month and a brief written report. The inspections must include observation and evaluation of BMP effectiveness. Deficiencies must be corrected within seven (7) days and the actions taken to correct the deficiencies shall be included with the written report, including photographs. Any corrective measure that necessitates major construction may also need a construction permit. Inspection reports must be kept on site with the SWPPP and maintained for a period of five (5) years. These must be made available to DNR personnel upon request.
 - (c) A provision for designating an individual to be responsible for environmental matters.
 - (d) A provision for providing training to all personnel involved in material handling and storage, and housekeeping of maintenance and cleaning areas. Proof of training shall be submitted on request of DNR.
7. Permittee shall adhere to the following minimum Best Management Practices:
- (a) Prevent the spillage or loss of fluids, oil, grease, fuel, etc. from vehicle maintenance, equipment cleaning, or warehouse activities and thereby prevent the contamination of storm water from these substances.
 - (b) Provide collection facilities and arrange for proper disposal of waste products including but not limited to petroleum waste products, and solvents.
 - (c) Store all paint, solvents, petroleum products and petroleum waste products (except fuels), and storage containers (such as drums, cans, or cartons) so that these materials are not exposed to storm water or provide other prescribed BMP's such as plastic lids and/or portable spill pans to prevent the commingling of storm water with container contents. Commingled water may not be discharged under this permit. Provide spill prevention control, and/or management sufficient to prevent any spills of these pollutants from entering waters of the state. Any containment system used to implement this requirement shall be constructed of materials compatible with the substances contained and shall also prevent the contamination of groundwater.
 - (d) Provide good housekeeping practices on the site to keep trash from entry into waters of the state.
 - (e) Provide sediment and erosion control sufficient to prevent or control sediment loss off of the property. This could include the use of straw bales, silt fences, or sediment basins, if needed, to comply with effluent limits.
8. The purpose of the SWPPP and the BMPs listed herein is the prevention of pollution of waters of the state. A deficiency of a BMP means it was not effective in preventing pollution [10 CSR 20-2.010(56)] of waters of the state, and corrective actions means the facility took steps to eliminate the deficiency.
9. All fueling facilities present on the site shall adhere to applicable federal and state regulations concerning underground storage, above ground storage, and dispensers, including spill prevention, control and counter measures.
10. Before releasing water that has accumulated in secondary containment areas it must be examined for hydrocarbon odor and presence of a sheen. If the presence of hydrocarbons is indicated, accumulated waster must be treated to remove all hydrocarbons prior to release or pumped and hauled to an appropriate treatment facility. Records of the event, including the method of removal and disposal, must be maintained.
11. Substances, regulated by federal law under the Resource Conservation and Recovery Act (RCRA) and Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA), that are transported, stored, or used for maintenance, cleaning or repair, shall be managed according to RCRA and CECRLA.

C. SPECIAL CONDITIONS (continued)

12. Prior to draining boilers for annual boiler integrity tests, boiler water shall be tested for Total Residual Chlorine (TRC). If the concentration of TRC in the boiler water is below the acute water quality standard for warm water fisheries (19µg/L) listed in 10 CSR 20-7.031, Table A., and if the discharge will not raise the temperature of the receiving stream above 90°F, the discharge may proceed through Outfall #001. If the TRC concentration exceeds the acute water quality standard for warm water fisheries, boiler water shall not be discharged through the facility outfall, but rather must be routed to the airport's pretreatment plant.

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. Compliance with this permit may not be considered a shield from compliance with any local ordinance, State Regulation or State Law.

Missouri Department of Natural Resources
FACT SHEET
FOR THE PURPOSE OF INITIAL ISSUANCE
OF
MO-0136069
CENTRAL UTILITY PLANT – FACILITY OPERATIONS SERVICES

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

As per [40 CFR Part 124.8(a)] and [10 CSR 20-6.020(1)2.] a Factsheet shall be prepared to give pertinent information regarding the applicable regulations, rationale for the development of effluent limitations and conditions, and the public participation process for the Missouri State Operating Permit (operating permit) listed below.

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

This Factsheet is for:

- ☐ Major
- ☐ Minor
- ☒ Industrial Facility
- ☐ Variance
- ☐ Master General Permit
- ☐ General Permit Covered Facility
- ☐ And/or permit with widespread public interest

Part I – Facility Information

Facility Type: Utility Plant
Facility SIC Code(s): 4961

Facility Description:

Non-contact cooling water/boiler blowdown/stormwater runoff

This facility, the Central Utility Plant (CUP), provides heated and cooled air to the American Airlines Maintenance & Engineering Base. Wastewater flow in Outfall #001 consists of boiler blowdown from three natural gas fired boilers, and stormwater runoff from a secondary containment area housing an above ground storage tank that holds diesel fuel as a backup fuel source for the boilers. Wastewater flow in Outfall #002 consists of non-contact cooling water from the main closed-loop cooling tower and a small auxiliary cooling tower, as well as stormwater accumulated in subsurface drains under the west and north berms of the fuel storage secondary containment area.

All flow from this facility was previously monitored at Outfall #011 of MSOP #MO-0003263, for American Airlines Maintenance & Engineering Base. This outfall discharges wastewater from the CUP as well as, at a minimum, stormwater runoff from large parking lots and from the American Airlines Base Hanger. American Airlines has determined that the CUP is the responsibility of the Kansas City, Missouri Aviation Department; therefore, it was eliminated as an outfall in their operating permit. The Kansas City, Missouri Aviation Department has, subsequently, applied for a site specific operating permit, on 5/26/2009, to cover the discharges from the CUP.

The Missouri Department of Natural Resources has required the Aviation Department to identify sampling locations, apart from MO-0003263 Outfall #011, that isolate the CUP's wastewater discharges from stormwater runoff from other sources. These sampling locations, MO-0136069 Outfalls #001 & #002, allow monitoring of wastewater prior to dilution from stormwater, thereby providing

an accurate characterization of the quality of water discharged by the facility. Flow from these two outfalls travels, by way of individual underground sewer lines, north-northeast of the CUP to the former Outfall #011, where it is discharged to the surface, along with the aforementioned discharges. From this point, all wastewater and stormwater enters the unclassified Unnamed Tributary to Todd Creek. Former Outfall #011 has been designated as Outfall #003 for this permit. This outfall will serve as the sampling point for temperature for all water leaving the CUP. Sampling will be conducted here to allow for a small amount of cooling as water travels through the underground sewer lines. Temperature measurements will be taken at a time when the discharge is not influenced by stormwater.

OUTFALL(S) TABLE:

| OUTFALL | DESIGN FLOW (GPD) | TREATMENT LEVEL | EFFLUENT TYPE | DISTANCE TO CLASSIFIED SEGMENT (MI) |
|---------|-----------------------------------|-----------------|--|-------------------------------------|
| #001 | 43,000 | N/A | Boiler Blowdown | 1.36 |
| #002 | 2,000 | N/A | Non-Contact Cooling Water | 1.36 |
| #003 | Combined discharge of #001 & #002 | N/A | Boiler Blowdown/Non-Contact Cooling Water (Temperature sampling point) | 1.36 |



Outfall #001

Legal Description: SW ¼, SW ¼, Sec. 23, T52N, R34W, Platte County

Latitude/Longitude: +3917506/-09441372

Receiving Stream: Unnamed Tributary to Todd Creek (U)

First Classified Stream and ID: Todd Creek (C) (00316)

USGS Basin & Sub-watershed No.: (10240012 – 120002)

Outfall #002

Legal Description: SW ¼, SW ¼, Sec. 23, T52N, R34W, Platte County

Latitude/Longitude: +3917516/-09441369

Receiving Stream: Unnamed Tributary to Todd Creek (U)

First Classified Stream and ID: Todd Creek (C) (00316)

USGS Basin & Sub-watershed No.: (10240012 – 120002)

Outfall #003

Legal Description: SW ¼, SW ¼, Sec. 23, T52N, R34W, Platte County

Latitude/Longitude: +3918001/-09441355

Receiving Stream: Unnamed Tributary to Todd Creek (U)

First Classified Stream and ID: Todd Creek (C) (00316)

USGS Basin & Sub-watershed No.: (10240012 – 120002)

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

This is a new permit for an existing facility; therefore, no effluent data was available for review. All flow from this facility was previously covered under Outfall #011 of MO-0003262, for the American Airlines Maintenance & Engineering Base. Outfall #011 contained flow from this facility, as well as from several other sources; therefore, any permit limit exceedances at this outfall during the previous permit cycle cannot be definitively attributed to this facility.

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:

Check boxes below that are applicable to the facility;

- Owned or operated by or for:
 - ☐ Municipalities
 - ☐ Public Sewer District
 - ☐ County
 - ☐ Public Water Supply Districts
 - ☐ Private sewer company regulated by the Public Service Commission
 - ☐ State or Federal agencies

Each of the above entities are only applicable if they have a Population Equivalent greater than two hundred (200) and/or fifty (50) or more service connections.



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 Todd Creek | U | NA | General Criteria | 10240012 | Central Plains/ Nishnabotna/ Platte |
| Todd Creek | C | 00316 | LWW, AQL | | |

* - 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

RECEIVING STREAM(S) LOW-FLOW VALUES TABLE:

| RECEIVING STREAM (U, C, P) | LOW-FLOW VALUES (CFS) | | |
|---------------------------------|-----------------------|------|-------|
| | 1Q10 | 7Q10 | 30Q10 |
| Unnamed Tributary to Todd Creek | 0.0 | 0.0 | 0.0 |
| Todd Creek | 0.0 | 0.0 | 0.1 |

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)].

RECEIVING STREAM MONITORING REQUIREMENTS:

No receiving water monitoring requirements recommended at this time.

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 Factsheet are at least as protective as those previously established; therefore, backsliding does not apply.

ANTIDEGRADATION:

In accordance with Missouri's Water Quality Standard [10 CSR 20-7.031(2)], the department is to document by means of Antidegradation Review that the use of a water body's available assimilative capacity is justified. Degradation is justified by documenting the socio-economic importance of a discharging activity after determining the necessity of the discharge.

☒

While this is a new permit, this discharge was previously covered under MO-0003263 so it is neither a new nor an expanded discharge. No degradation proposed and no further review necessary.

AREA-WIDE WASTE TREATMENT MANAGEMENT & CONTINUING AUTHORITY:

As per [10 CSR 20-6.010(3)(B)], ...An applicant may utilize a lower preference continuing authority by submitting, as part of the application, a statement waiving preferential status from each existing higher preference authority, providing the waiver does not conflict with any area-wide management plan approved under section 208 of the Federal Clean Water Act or any other regional sewage service and treatment plan approved for higher preference authority by the department.

BIO-SOLIDS, SLUDGE, & SEWAGE SLUDGE:

Bio-solids are solid materials resulting from wastewater treatment that meet federal and state criteria for beneficial uses (i.e. fertilizer). Sludge is any solid, semi-solid, or liquid waste generated from a municipal, commercial, or industrial wastewater treatment plant, water supply treatment plant, or air pollution control facility or any other such waste having similar characteristics and effect. Sewage sludge is solids, semi-solids, or liquid residue generated during the treatment of domestic sewage in a treatment works; including but not limited to, domestic septage; scum or solids removed in primary, secondary, or advanced wastewater treatment process; and a material derived from sewage sludge. Sewage sludge does not include ash generated during the firing of sewage sludge in a sewage sludge incinerator or grit and screening generated during preliminary treatment of domestic sewage in a treatment works.

☒ Not Applicable

This condition is not applicable to the permittee for this specific facility at this time. This facility discharges only stormwater, non-contact cooling water, and boiler blowdown and, therefore, does not produce bio-solids, sludge, or sewage-sludge.

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.

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):

Federal regulation [40 CFR Part 122.44(d)(1)(i)] requires effluent limitations for all pollutants that are or may be discharged at a level that will cause or have the reasonable potential to cause or contribute to an in-stream excursion above narrative or numeric water quality standard.

In accordance with [40 CFR Part 122.44(d)(iii)] if the permit writer determines that any give pollutant has the reasonable potential to cause, or contribute to an in-stream excursion above the WQS, the permit must contain effluent limits for that pollutant.

☒ Not Applicable

A RPA was not conducted for this facility. The outfall from which this facility previously discharged contained this facility's flow mingled with stormwater from nearby parking lots. A RPA cannot be performed on stormwater discharges; however, examination of discharge monitoring data showed that copper was the only toxic parameter that was discharged in concentrations higher than permitted limits.

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 @ www.epa.gov/fedrgstr/EPA-WATER/1999/August/Day-04/w18866.htm.

☒ Not Applicable

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 SSO 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.

☒ 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.

☒ Applicable

A SWPPP shall be developed and implemented for each site and shall incorporate required practices identified by the department with jurisdiction, incorporate erosion control practices specific to site conditions, and provide for maintenance and adherence to the plan.

VARIANCE:

As per the Missouri Clean Water Law § 644.061.4, variances shall be granted for such period of time and under such terms and conditions as shall be specified by the commission in its order. The variance may be extended by affirmative action of the commission. In no event shall the variance be granted for a period of time greater than is reasonably necessary for complying with the Missouri Clean Water Law §§644.006 to 644.141 or any standard, rule or regulation promulgated pursuant to Missouri Clean Water Law §§644.006 to 644.141.

☒ Not Applicable

This operating permit is not drafted under premises of a petition for variance.

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 total amount of pollutant that may be discharged into that stream without endangering its water quality.

☒ Not Applicable

Wasteload allocations were not calculated.

WLA MODELING:

There are two general types of effluent limitations, technology-based effluent limits (TBELs) and water quality based effluent limits (WQBELs). If TBELs do not provide adequate protection for the receiving waters, then WQBEL must be used.

☒ 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

In accordance with the 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. Furthermore, WET testing is a means by which the department determines that [10 CSR 20-7.031(3)(D, F, & G)] are being met by the permitted facility. In addition to justification for the WET testing, WET tests are required under [10 CSR 20-6.010(8)(A)4] to be performed by specialists who are properly trained in conducting the test according to the methods prescribed by the Federal Government as referenced in [40 CFR Part 136]. WET test will be required by all facilities meeting the following criteria:

☐ Facility is a designated Major.

☐ Facility continuously or routinely exceeds its design flow.

☐ Facility (industrial) that alters its production process throughout the year.

☐ Facility handles large quantities of toxic substances, or substances that are toxic in large amounts.

☐ Facility has Water Quality-based Effluent Limitations for toxic substances (other than NH₃)

☐ Facility is a municipality or domestic discharger with a Design Flow > 22,500 gpd.

☐ Other - Please justify

☒ 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***Outfalls #001 & #002*****EFFLUENT LIMITATIONS TABLE:**

| PARAMETER | UNIT | BASIS FOR LIMITS | DAILY MAXIMUM | WEEKLY AVERAGE | MONTHLY AVERAGE | MODIFIED | PREVIOUS PERMIT LIMITATIONS |
|---------------------------|--|------------------|---------------|----------------|-----------------|----------|-----------------------------|
| OUTFALLS #001 & #002 | | | | | | | |
| FLOW | GPD | 1 | * | | * | NA | NA |
| TPH | MG/L | 1 | 10 | | 10 | NA | NA |
| TSS | MG/L | 9 | 70 | | 50 | NA | NA |
| pH | SU | 1 | 6.5-9.0 | | 6.5-9.0 | NA | NA |
| CHLORINE, TOTAL RESIDUAL | MG/L | 9 | * | | * | NA | NA |
| OIL & GREASE (MG/L) | MG/L | 1/2 | 15 | | 10 | NA | NA |
| COPPER, TOTAL RECOVERABLE | µg/L | 9 | * | | * | NA | NA |
| SPECIFIC CONDUCTIVITY | µS/cm @ 25°C | 9 | * | | * | NA | NA |
| MONITORING FREQUENCY | Please see Minimum Sampling and Reporting Frequency Requirements in the Derivation and Discussion Section below. | | | | | | |
| Outfall #003 | | | | | | | |
| TEMPERATURE | °F | 1/2 | 90° | | | NA | NA |
| MONITORING FREQUENCY | Please see Minimum Sampling and Reporting Frequency Requirements in the Derivation and Discussion Section below. | | | | | | |

* - Monitoring requirement only.

** - For DO the Daily Maximum is a Daily Minimum and the Monthly Average is a Monthly Average Minimum.

*** - # of colonies/100mL; the Monthly Average for Fecal Coliform is a geometric mean.

**** - Parameter not previously established in previous state operating permit.

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 | 12. Antidegradation Review |
| | 13. Dissolved Oxygen Policy |

OUTFALLS #001, #002, & #003 – DERIVATION AND DISCUSSION OF LIMITS:

- **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.
- **Total Suspended Solids (TSS)**. Effluent limitations from the previous state operating permit (MO-0003263, Outfall #011) 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, please see the **APPLICABLE DESIGNATION OF WATERS OF THE STATE** sub-section of the **Receiving Stream Information**.
- **pH**. Effluent limitation range is from 6.5 to 9.0 Standard pH Units (SU), as per [10 CSR 20-7.031(4)(E)]. pH is not to be averaged.
- **Temperature**. Effluent limitation maximum is 90°F, as per [10 CSR 20-7.031(4)(D)]. The receiving stream for this facility is an unclassified stream with low flow volumes of 0.0 cfs; therefore, the effluent limitation has been set at the water quality standard for warm water fisheries.
- **Total Residual Chlorine (TRC)**. Monitoring requirement only. This facility utilizes the public drinking water supply for boiler water and non-contact cooling water. Due to the presence of chlorine in the public drinking water supply, TRC monitoring has been added to this permit. If, at the next permit renewal, the acquired monitoring data indicates the potential to violate water quality standards, TRC limits will be assessed.
- **Oil & Grease**. Conventional pollutant, effluent limitation for protection of aquatic life; 10 mg/L monthly average, 15 mg/L daily maximum.
- **Total Petroleum Hydrocarbons**. Effluent limitations are protective and have been shown to be achievable by facilities with above ground fuel storage tanks with secondary containment who utilize an effective Storm Water Pollution Prevention Plan and Spill Prevention, Control, and Countermeasures Plan.
- **Copper, Total Recoverable**. Monitoring requirement only. Data obtained during this permit cycle will be used at the next permit renewal to determine if this facility has the reasonable potential to violate water quality standards.
- **Specific Conductivity**. An indicator parameter for the total ions which conduct electrical current. In a sample of water, conductivity may be indicative of the total contamination present in the sample.
- **Minimum Sampling and Reporting Frequency Requirements**.

| PARAMETER | SAMPLING FREQUENCY | REPORTING FREQUENCY |
|---------------------------|--------------------|---------------------|
| FLOW | ONCE/QUARTER | ONCE/QUARTER |
| TPH | ONCE/QUARTER | ONCE/QUARTER |
| TSS | ONCE/QUARTER | ONCE/QUARTER |
| pH | ONCE/QUARTER | ONCE/QUARTER |
| TEMPERATURE | ONCE/QUARTER | ONCE/QUARTER |
| CHLORINE, TOTAL RESIDUAL | ONCE/QUARTER | ONCE/QUARTER |
| OIL & GREASE (MG/L) | ONCE/QUARTER | ONCE/QUARTER |
| COPPER, TOTAL RECOVERABLE | ONCE/QUARTER | ONCE/QUARTER |
| SPECIFIC CONDUCTIVITY | 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.

PUBLIC NOTICE:

The department shall give public notice that a draft permit has been prepared and its issuance is pending. Additionally, public notice will be issued if a public hearing is to be held because of a significant degree of interest in and water quality concerns related to a draft permit. No public notice is required when a request for a permit modification or termination is denied; however, the requester and permittee must be notified of the denial in writing.

The department must issue public notice of a pending operating permit or of a new or reissued statewide general permit. The public comment period is the length of time not less than 30 days following the date of the public notice which interested persons may submit written comments about the proposed permit.

For persons wanting to submit comments regarding this proposed operating permit, then please refer to the Public Notice page located at the front of this draft operating permit. The Public Notice page gives direction on how and where to submit appropriate comments.



The Public Notice period for this operating permit was from 8/28/09 to 9/30/09. No responses received or responses to the Public Notice of this operating permit do not warrant the modification of effluent limits and/or the terms and conditions of this permit.

DATE OF FACT SHEET: JULY 27, 2009

COMPLETED BY:

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