

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES
MISSOURI CLEAN WATER COMMISSION



CONSTRUCTION PERMIT

The Missouri Department of Natural Resources hereby issues a permit to:

City of Edgar Springs
Edgar Springs Wastewater Treatment Plant
0.2 miles South of Highway M and Highway 63 Intersection
Edgar Springs, MO 65462

for the construction of (described facilities):

See attached.

Permit Conditions:

See attached.

Construction of such proposed facilities shall be in accordance with the provisions of the Missouri Clean Water Law, Chapter 644, RSMo, and regulation promulgated thereunder, or this permit may be revoked by the Department of Natural Resources (department).

As the department does not examine structural features of design or the efficiency of mechanical equipment, the issuance of this permit does not include approval of these features.

A representative of the department may inspect the work covered by this permit during construction. Issuance of a permit to operate by the department will be contingent on the work substantially adhering to the approved plans and specifications.

This permit applies only to the construction of water pollution control components; it does not apply to other environmentally regulated areas.

October 24, 2024

Effective Date

January 15, 2027

Expiration Date

John Hoke, Director, Water Protection Program

CONSTRUCTION PERMIT

I. CONSTRUCTION DESCRIPTION

The Edgar Springs WWTP is located at 0.2 miles South of Highway M and Highway 63 Intersection, Edgar Springs, in Phelps County, Missouri. Construction will include a new valve vault for the influent pump station, new tertiary disc filters, new effluent flow meter, and new ultraviolet disinfection system. Backwash from the tertiary disc filters will be returned to the influent lift station. The facility has a design average flow of 40,000 gallons per day (gpd) and serves a hydraulic population equivalent of approximately 400 people.

A closure plan will need to be submitted to the Central Field Operations Office for review and approval prior to any closure activities. From the construction permit application, closure and removal of the existing UV disinfection system and the sock filters is identified.

This project will also include general site work appropriate to the scope and purpose of the project and all necessary appurtenances to make a complete and usable wastewater treatment facility.

II. COST ANALYSIS FOR COMPLIANCE

Pursuant to Section 644.145, RSMo, when issuing permits under this chapter that incorporate a new requirement for discharges from publicly owned combined or separate sanitary or storm sewer systems or publicly owned treatment works, or when enforcing provisions of this chapter or the Federal Water Pollution Control Act, 33 U.S.C. 1251 et seq., pertaining to any portion of a publicly owned combined or separate sanitary or storm sewer system or [publicly owned] treatment works, the Department of Natural Resources shall make a “finding of affordability” on the costs to be incurred and the impact of any rate changes on ratepayers upon which to base such permits and decisions, to the extent allowable under this chapter and the Federal Water Pollution Control Act. This process is completed through a cost analysis for compliance. Permits that do not include new requirements may be deemed affordable.

The department is not required to determine Cost Analysis for Compliance because the permit contains no new conditions or requirements that convey a new cost to the facility.

III. CONSTRUCTION PERMIT CONDITIONS

The permittee is authorized to construct subject to the following conditions:

1. This construction permit does not authorize discharge.

2. All construction shall be consistent with plans and specifications signed and sealed by Alissha Feeler, P.E., with Archer-Elgin Engineering & Surveying and as described in this permit.
3. The department must be contacted in writing prior to making any changes to the plans and specifications that would directly or indirectly have an impact on the capacity, flow, system layout, or reliability of the proposed wastewater treatment facilities or any design parameter that is addressed by 10 CSR 20-8, in accordance with 10 CSR 20-8.110(11).
4. State and federal law does not permit bypassing of raw wastewater, therefore steps must be taken to ensure that raw wastewater does not discharge during construction. If a sanitary sewer overflow or bypass occurs, report the appropriate information to the department's Central Field Operations Office per 10 CSR 20-7.015(9)(G).
5. In addition to the requirements for a construction permit, 10 CSR 20-6.200 requires land disturbance activities of one acre or more to obtain a Missouri state operating permit to discharge stormwater. The permit requires best management practices sufficient to control runoff and sedimentation to protect waters of the state. Land disturbance permits will only be obtained by means of the department's ePermitting system available online at <https://dnr.mo.gov/data-e-services/missouri-gateway-environmental-management-mogem>. See <https://dnr.mo.gov/data-e-services/water/electronic-permitting-epermitting> for more information.
6. A United States Army Corps of Engineers (USACE) Clean Water Act Section 404 Department of the Army permit and a Section 401 Water Quality Certification issued by the department may be required for the activities described in this permit. This permit is not valid until these requirements are satisfied or notification is provided that no Section 404 permit is required by the USACE. You must contact your local USACE district since they determine what waters are jurisdictional and which permitting requirements may apply. You may call the department's Water Protection Program, Operating Permits Section at 573-522-4502 for more information. See <https://dnr.mo.gov/water/business-industry-other-entities/permits-certification-engineering-fees/section-401-water-quality> for more information.
7. In accordance with 10 CSR 20-6.010(12), a full closure plan shall be submitted to the department's Central Field Operations Office for review and approval of any permitted wastewater treatment system being replaced. The closure plan must meet the requirements outlined in Standard Conditions Part III of the Missouri State Operating Permit No. MO- 0105449. Closure shall not commence until the submitted closure plan is approved by the department.
8. All construction must adhere to applicable 10 CSR 20-8 (Chapter 8) requirements listed below.
 - Flood protection shall apply to new construction and to existing facilities undergoing major modification. The wastewater facility structures, electrical equipment, and mechanical equipment shall be protected from physical damage

- by not less than the 100-year flood elevation. 10 CSR 20-8.140(2)(B). 10 CSR 20-8.130 (2) (A)
- Facilities shall be readily accessible by authorized personnel from a public right-of-way at all times. 10 CSR 20-8.140 (2) (D). 10 CSR 20-8.130 (2) (B)
 - Adequate provisions shall be made to effectively protect facility personnel and visitors from hazards. The following shall be provided to fulfill the particular needs of each wastewater treatment facility: 10 CSR 20-8.130(2)(C), 10 CSR 20-8.140 (8) (B)
 - Fencing. Enclose the facility site with a fence designed to discourage the entrance of unauthorized persons and animals; 10 CSR 20-8.140(8)(A)
 - Gratings over appropriate areas of treatment units where access for maintenance is necessary; 10 CSR 20-8.140(8)(B)
 - First aid equipment; 10 CSR 20-8.140(8)(C)
 - Posted “No Smoking” signs in hazardous areas; 10 CSR 20-8.140(8)(D)
 - Appropriate personal protective equipment (PPE); 10 CSR 20-8.140(8)(E)
 - Portable blower and hose sufficient to ventilate accessed confined spaces; 10 CSR 20-8.140(8)(F)
 - 10 CSR 20-8.140 (8) (G) Portable lighting equipment complying with NEC requirements. See subsection (7)(B) of this rule;
 - 10 CSR 20-8.140 (8) (H) Gas detectors listed and labeled for use in NEC Class I, Division 1, Group D locations. See subsection (7)(B) of this rule;
 - Appropriately-placed warning signs for slippery areas, non-potable water fixtures (see subparagraph (7)(D)3.B. of this rule), low head clearance areas, open service manholes, hazardous chemical storage areas, flammable fuel storage areas, high noise areas, etc.; 10 CSR 20-8.140(8)(I)
 - Explosion-proof electrical equipment, non-sparking tools, gas detectors, and similar devices, in work areas where hazardous conditions may exist, such as digester vaults and other locations where potentially explosive atmospheres of flammable gas or vapor with air may accumulate.; 10 CSR 20-8.140(8)(K)
 - Provisions for local lockout/tagout on stop motor controls and other devices; 10 CSR 20-8.140(8)(L)
 - Provisions for an arc flash hazard analysis and determination of the flash protection boundary distance and type of PPE to reduce exposure to major electrical hazards shall be in accordance with NFPA 70E *Standard for Electrical Safety in the Workplace* (2018 Edition), as approved and published August 21, 2017. 10 CSR 20-8.140(8)(M)
 - Multiple pumps shall be provided except for design average flows of less than 1,500 gpd. 10 CSR 20-8.130 (3) (B) 1.
 - Electrical equipment. Electrical equipment shall be provided with the following requirements:
 - 10 CSR 20-8.130 (3) (B) 2. A. Electrical equipment must comply with 10 CSR 20-8.140(7)(B);
 - Utilize corrosive resistant equipment located in the wet well; 10 CSR 20-8.130 (3) (B) 2. B.

- Provide a watertight seal and separate strain relief for all flexible cable; 10 CSR 20-8.130(3) (B) 2. C.
- Install a fused disconnect switch located above ground for the main power feed for all pumping stations. 10 CSR 20-8.130 (3) (B) 2. D.
- When such equipment is exposed to weather, it shall comply with the requirements of weather proof equipment; enclosure NEMA 4; NEMA 4X where necessary; and *NEMA Standard 250-2014*, published December 15, 2014. 10 CSR 20-8.130 (3) (B) 2. E.
- Install lightning and surge protection systems; 10 CSR 20-8.130 (3) (B) 2. F.
- Install a 110 volt (V) power receptacle inside the control panel located outdoors to facilitate maintenance; 10 CSR 20-8.130 (3) (B) 2. G.
- Provide Ground Fault Circuit Interruption (GFCI) protection for all outdoor receptacles. 10 CSR 20-8.130 (3) (B) 2. H.
- Water level controls must be accessible without entering the wet well. 10 CSR 20-8.130 (3) (C)
- Valves shall not be located in the wet well unless integral to a pump or its housing. 10 CSR 20-8.130 (3) (D)
- Covered wet wells shall have provisions for air displacement to the atmosphere, such as an inverted and screened “j” tube or other means. 10 CSR 20-8.130 (3) (E)
- There shall be no physical connection between any potable water supply and a wastewater pumping station, which under any conditions, might cause contamination of the potable water supply. If a potable water supply is brought to the station, no piping or other connections shall exist in any part of the wastewater treatment facility that might cause the contamination of a potable water supply. 10 CSR 20-8.130 (3) (G)
 - Where a potable water supply is to be used for any purpose in a wastewater treatment facility other than direct connections, a break tank, pressure pump, and pressure tank or a reduced pressure backflow preventer consistent with the department’s Public Drinking Water Branch shall be provided. 10 CSR 20-8.140 (7) (D) 3. A.
 - For indirect connections, a sign shall be permanently posted at every hose bib, faucet, hydrant, or sill cock located on the water system beyond the break tank or backflow preventer to indicate that the water is not safe for drinking. 10 CSR 20-8.140 (7) (D) 3. B.
 - Where a separate non-potable water supply is to be provided, a break tank will not be necessary, but all system outlets shall be posted with a permanent sign indicating the water is not safe for drinking. 10 CSR 20-8.140 (7) (D) 4.
- 10 CSR 20-8.130 (4) (C) Wet well access shall not be through the equipment compartment.
- Submersible pump stations shall meet the applicable requirements under section (3) of this rule, except as modified in this section. 10 CSR 20-8.130 (5)
 - Pump Removal. Submersible pumps shall be readily removable and replaceable without personnel entering, dewatering, or disconnecting any piping in the wet well. 10 CSR 20-8.130 (5) (A)

- 10 CSR 20-8.130 (5) (B) Valve Chamber and Valves. Valves required under subsection (3)(D) of this rule shall be located in a separate valve chamber.
 - A minimum access hatch dimensions of 24 inches by 36 inches shall be provided. 10 CSR 20-8.130 (5) (B) 1.
- A portable pump connection on the discharge line with rapid connection capabilities shall be provided. 10 CSR 20-8.130 (5) (B) 2.
- Alarm systems with an uninterrupted power source shall be provided for pumping stations. 10 CSR 20-8.130 (6)
- Unless another distance is determined by the Missouri Geological Survey or by the department's Public Drinking Water Branch, the minimum distance between wastewater treatment facilities and all potable water sources shall be at least 300 feet. 10 CSR 20-8.140 (2) (C) 1.
- Facilities shall be readily accessible by authorized personnel from a public right-of-way at all times. 10 CSR 20-8.140 (2) (D)
- All wastewater treatment facilities shall be provided with an alternate source of electric power or pumping capability to allow continuity of operation during power failures. 10 CSR 20-8.140 (7) (A) 1.
- Disinfection and dechlorination, when used, shall be provided during all power outages. 10 CSR 20-8.140 (7) (A) 2.
- Electrical systems and components in raw wastewater or in enclosed or partially enclosed spaces where hazardous concentrations of flammable gases or vapors that are normally present, shall comply with the NFPA 70 *National Electric Code (NEC)* (2017 Edition), as approved and published August 24, 2016, requirements for Class I, Division 1, Group D locations. 10 CSR 20-8.140 (7) (B)
- An audiovisual alarm or a more advanced alert system, with a self-contained power supply, capable of monitoring the condition of equipment whose failure could result in a violation of the operating permit, shall be provided for all wastewater treatment facilities. 10 CSR 20-8.140 (7) (C)
- No piping or other connections shall exist in any part of the wastewater treatment facility that might cause the contamination of a potable water supply. 10 CSR 20-8.140 (7) (D) 1.
- Hot water for any direct connections shall not be taken directly from a boiler used for supplying hot water to a digester heating unit or heat exchanger. 10 CSR 20-8.140 (7) (D) 2.
- Where a potable water supply is to be used for any purpose in a wastewater treatment facility other than direct connections, a break tank, pressure pump, and pressure tank or a reduced pressure backflow preventer consistent with the department's Public Drinking Water Branch shall be provided. 10 CSR 20-8.140 (7) (D) 3. A.
- For indirect connections, a sign shall be permanently posted at every hose bib, faucet, hydrant, or sill cock located on the water system beyond the break tank or backflow preventer to indicate that the water is not safe for drinking. 10 CSR 20-8.140 (7) (D) 3. B.
- A means of flow measurement shall be provided at all wastewater treatment facilities. 10 CSR 20-8.140 (7) (E)

- Effluent 24 hour composite automatic sampling equipment shall be provided at all mechanical wastewater treatment facilities and at other facilities where necessary under provisions of the operating permit. 10 CSR 20-8.140 (7) (F)
- The materials utilized for storage, piping, valves, pumping, metering, and splash guards, etc., for chemical handling, shall be specially selected considering the physical and chemical characteristics of each hazardous or corrosive chemical. 10 CSR 20-8.140 (9) (A) 1.
- The identification and hazard warning data included on chemical shipping containers, when received, shall appear on all containers (regardless of size or type) used to store, carry, or use a hazardous substance. 10 CSR 20-8.140 (9) (E)
- Emergency Power. Disinfection and dechlorination processes, when used, shall be provided during all power outages. 10 CSR 20-8.190 (2) (A)
- The UV dosage shall be based on the design peak hourly flow, maximum rate of pumpage, or peak batch flow. 10 CSR 20-8.190 (5) (A) 1.
- If no flow equalization is provided for a batch discharger, the UV dosage shall be based on the peak batch flow. 10 CSR 20-8.190 (5) (A) 2.
- The UV system shall deliver the target dosage based on equipment derating factors and, if needed, have the UV equipment manufacturer verify that the scale up or scale down factor utilized in the design is appropriate for the specific application under consideration. 10 CSR 20-8.190 (5) (A) 3.
- The UV system shall deliver a minimum UV dosage of 30,000 microwatt seconds per centimeters squared ($\mu\text{W} \cdot \text{s}/\text{cm}^2$). 10 CSR 20-8.190 (5) (A) 4.
- Open channel UV systems. The combination of the total number of banks shall be capable of treating the design peak hourly flow, maximum rate of pumpage, or peak batch flow. 10 CSR 20-8.190 (5) (B) 1.
- The UV system must continuously monitor and display at the UV system control panel the following minimum conditions:
 - The relative intensity of each bank or closed vessel system; 10 CSR 20-8.190 (5) (C) 1. A.
 - The operational status and condition of each bank or closed vessel system; 10 CSR 20-8.190 (5) (C) 1. B.
 - The ON/OFF status of each lamp in the system; 10 CSR 20-8.190 (5) (C) 1. C. and
 - The total number of operating hours of each bank or each closed vessel system. 10 CSR 20-8.190 (5) (C) 1. D.
- The UV system shall include an alarm system. Alarm systems shall comply with 10 CSR 20-8.140(7)(C). 10 CSR 20-8.190 (5) (C) 2.
- Filtration systems shall have:
 - Convenient access to all components and the media surface for inspection and maintenance without taking other units out of service; 10 CSR 20-8.210 (3) (B) 1. A.
 - Enclosed controls and heating and ventilation equipment to control humidity; 10 CSR 20-8.210 (3) (B) 1. B. and
 - The capacity to process the design average flow to the filters with the largest unit out of service utilizing a minimum of two units. 10 CSR 20-8.210 (3) (B) 1. C.

- The media for cloth/disc filters shall:
 - Follow the manufacturer's recommendations; 10 CSR 20-8.210 (3) (E) 1. B. and
 - Be chemical-resistant if the filter will be exposed to chemicals, such as chlorine or disinfectants. 10 CSR 20-8.210 (3) (E) 1. C.
 - Filtration Rates and Hydraulics for cloth/disc filters shall be able to treat the design flow rate with one filter unit in backwash mode. 10 CSR 20-8.210 (3) (E) 2. B.
9. Upon completion of construction:
- A. The City of Edgar Springs will become the continuing authority for operation and maintenance of these facilities;
 - B. Submit an electronic copy of the as built if the project was not constructed in accordance with previously submitted plans and specifications; and
 - C. Submit the Statement of Work Completed form to the department in accordance with 10 CSR 20-6.010(5)(N) (<https://dnr.mo.gov/document-search/wastewater-construction-statement-work-completed-mo-780-2155>).

IV. REVIEW SUMMARY

1. CONSTRUCTION PURPOSE

Construction will include collection system work on existing lift stations #2-#6, new tertiary disc filtration to improve compliance with TSS effluent limits, and new UV disinfection system for continued compliance with the existing *E. coli* effluent limit for losing streams.

2. FACILITY DESCRIPTION

The Edgar Springs WWTP is located at 0.2 miles South of Highway M and Highway 63 Intersection, Edgar Springs, in Phelps County, Missouri. The facility has a design average flow of 40,000 gpd and serves a hydraulic population equivalent of approximately 400 people.

The existing collection system includes 2-inch forcemain, 6-inch gravity sewer, with 5 lift stations.

The existing wastewater treatment plant is a manual bar screen, influent lift station, equalization basin, influent flow meter, 2 aeration sedimentation units to provide treatment, tertiary filters, backwash pumps, and ultraviolet disinfection.

Construction will include a new valve vault for the influent pump station, new tertiary disc filters, new effluent flow meter, and new ultraviolet disinfection system.

Backwash from the tertiary disc filters will be returned to the influent lift station. The new valve vault will be a bid alternate. The design average flow will remain at 40,000 gpd.

3. COMPLIANCE PARAMETERS

The proposed project is required to meet final effluent limits established in State Operating Permit, MO0105449 and summarized below.

Parameter	Units	Monthly average limit
Biochemical Oxygen Demand ₅	mg/L	10
Total Suspended Solids	mg/L	15
Ammonia as N-1 st quarter	mg/L	2.7
Ammonia as N-2 nd quarter	mg/L	1.3
Ammonia as N-3 rd quarter	mg/L	1.3
Ammonia as N-4 th quarter	mg/L	2.7
pH	SU	6.5-9.0
<i>E. coli</i>	#/100mL	126

4. REVIEW of MAJOR TREATMENT DESIGN CRITERIA

Existing major components that will remain in use include the following:

- Collection system- existing 2-inch forcemain followed by 6-inch gravity sewers.
 - STEP 1,000-gallon baffled tank
 - Gravity sewer into the treatment plant.
- Influent Pump Station- The influent pumps at the WWTF were replaced under CP0001671 with 75 gpm pumps.
- Screening – Installation of screening devices removes nuisance inorganic materials from raw wastewater.
 - Manual Coarse Bar Screen – The manual coarse bar screen has clear bar spacings of 1.5-inch.
- Flow equalization basin- The concrete-lined equalization basin installed under CP0001671 operates by gravity.
 - The capacity constructed is approximately 170,000 gal with 1 ft of freeboard, providing approximately 1.x days of storage at peak flow of 108,000 gpd and 4.25 days of storage at the design average flow of 40,000 gpd.
- Aerobic Sedimentation Basin/Extended Aeration Plant-
 - The existing Aeration basins contain clarator sedimentation units (clarifiers) internal to the aeration basins. Within those sedimentation units, RAS is returned via air lift pumps and associated piping to the aeration basin.
 - The clarator sedimentation units installed under CP0001671 have a total volume of approximately 9,000 gal,
 - HRT of 2.5 hours at design average flow in 1 basin, 5 hours with both basins at design average flow, and 2 hours with both basins at a peak flow of 108,000 gpd (75 gpm)

- The clarator sedimentation units installed under CP0001671 have a total surface area of 180 sf.
 - Surface overflow rate of 222 gpd/ ft² at design average flow at 600 gpd/ ft² at a peak flow of 108,000 gpd (75 gpm)
 - Solids loading rate of 19 lbs/ft²/day at design average flow and 31 lbs/ft²/day at a peak flow of 108,000 gpd (75 gpm)
- Design MLSS is 2,000 mg/L to 4,000 mg/L.
- Aerobic Digester-The aeration piping, diffusers and air lift pump were replaced under CP0001671.

Construction will cover the following items:

- Collection system- The project involves the replacement of pumps within Lift Stations 2 through 6 with new grinder pumps, structures, controls, and associated site improvements and appurtenances. Converting all pump stations back to duplex lift stations.
 - Firm pumping capacity will be provided at each pump station by one duty and one standby submersible pump.
 - Pump Stations 2, 4, 5 and 6 will be provided with identical 3 Hp pumps and Pump Station 3 will be provided with 5 Hp pumps, with all pumping capacities exceeding the projected peak influent flow to the pump stations and sized to develop a minimum of 2 ft/s velocity in the existing 2" forcemains.
 - Pump station #2- At peak flow, the pump will be capable of operating at 5.4 gpm with a 15.8 ft TDH
 - Approximate storage volume is 2,515 gallons.
 - At the peak flow of 5.4 gpm into the pump station, this provides approximately 7.7 hours of storage.
 - Pump station #3- At peak flow, pump will be capable of operating at 26.1 gpm with a 72.7 ft TDH.
 - Approximate storage volume is 3,177 gallons.
 - At the peak flows of 3.3 gpm into the pump station, this provides approximately 16 hours of storage.
 - Pump station #4- At peak flow, the pump will be capable of operating at 3.3 gpm with 13.0 ft TDH.
 - Approximate storage volume is 2,111 gallons.
 - At the peak flows of 3.2 gpm into the pump station, this provides approximately 11 hours of storage.
 - Pump station #5- At peak flow, the pump will be capable of operating at 8.2 gpm with 38.3 ft TDH.
 - Approximate storage volume is 2,857 gallons.
 - At the peak flows of 8.2 gpm into the pump station, this provides approximately 5.8 hours of storage.
 - Pump station #6- At peak flow, the pump will be capable of operating at 10.3 gpm with 24.6ft TDH.
 - Approximate storage volume is 2,745 gallons.
 - At the peak flows of 10.1 gpm into the pump station, this provides approximately 4.4 hours of storage.

- Influent Pump Station – Bid alternate-installation of a new valve vault to serve the duplex pump station (1 duty+1 standby pump). The proposed project involves the purchase of spare shelf pumps rated for 75 gpm to match what was installed under CP0001671.
- Cloth Disk Tertiary Filtration – Installation of one Veolia Water Technologies, Inc cloth disc tertiary filter or engineer approved equivalent.
 - The cloth disc capable of treating an average design flow of 40,000 gpd and a peak flow of 108,000 gpd.
 - The unit has 2 cloth disc assemblies with a total filtration area of 17 ft² per disk (34 ft² per unit)
 - The media is constructed with 10 μm openings.
 - The average filter rate will be 1.6 gpm/sq. ft with 1 disc and have a peak filter rate of 4.4 gpm/ sq. ft with 1 disc
 - The backwash system will have 2 pumps (1 firm + 1 standby).
 - The disc filter unit shall be supplied with a backwash system., with duplex pumps, with a backwash rate of 5 gpm.
- Flow Measurement – Installation of accurate flow measurement devices will give the treatment facility a means of improved data analysis.
 - Electromagnetic Meter – An effluent electromagnetic 8-inch flow meter shall measure the tertiary treated prior to disinfecting the wastewater and ultimate discharge through Outfall No. 001.
- Disinfection – Disinfection is the process of removal, deactivation, or killing of pathogenic microorganisms.
 - Open Channel Ultraviolet (UV) – An open channel, gravity flow, low pressure high intensity UV disinfection system capable of treating a peak flow of 108,000 gpd (0.108 MGD) while delivering a minimum UV intensity of 35 mJ/cm² with an expected ultraviolet transmissivity of 60 percent or greater.
 - The single open channel UV system consists of 2 banks in series with 2 modules per bank and 2 lamps per module, for a total of 8 lamps.
 - The disinfected effluent will flow by gravity through flow measurement equipment and to Outfall No. 001.
 - Emergency Power – As a bid alternate, a new generator and automatic transfer switch will be provided to operate the treatment facility and the collection system in event of power failure.

5. OPERATING PERMIT

These construction activities do not change the effluent limits or conditions of the current operating permit. The modified Edgar Springs WWTF, MO-0105449, will be public noticed to update the facility description. It will be incorporated into the 2024

renewal action. Submit the Statement of Work Completed to the department in accordance with 10 CSR 20-6.010(5)(N).

V. NOTICE OF RIGHT TO APPEAL

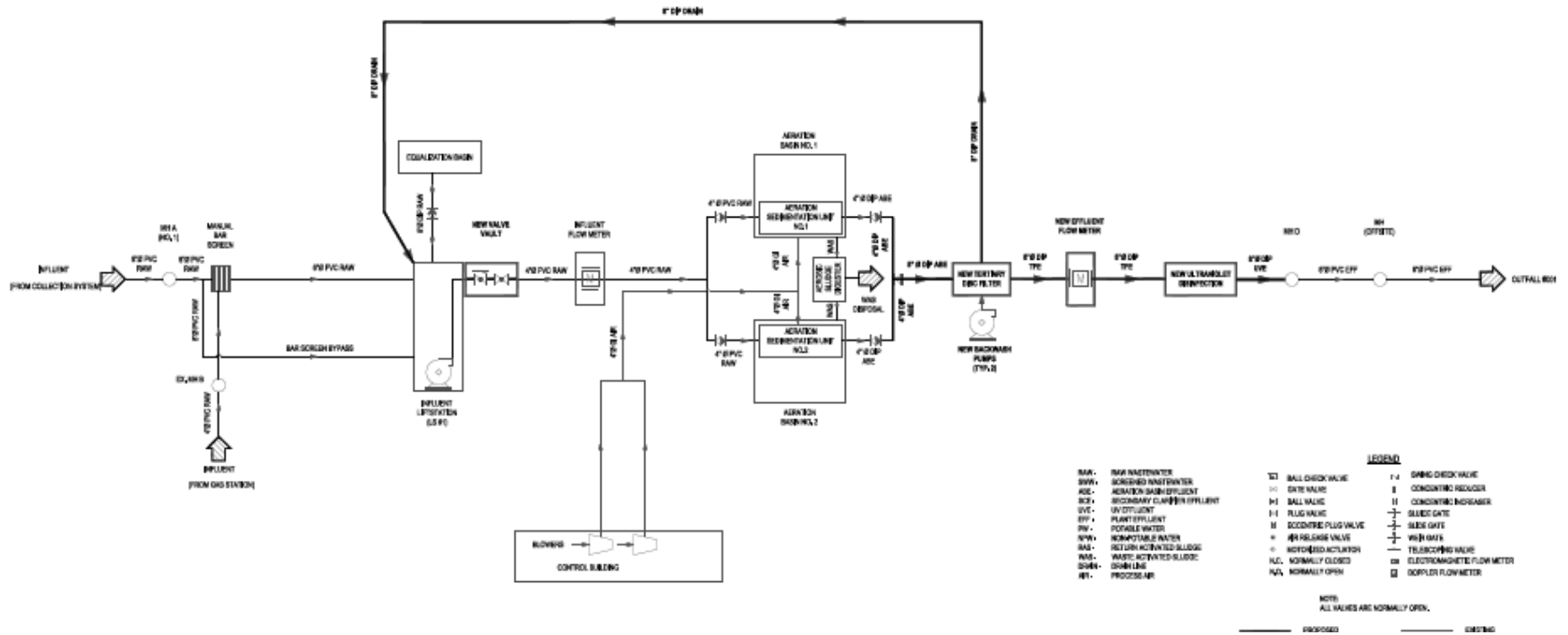
If you were adversely affected by this decision, you may be entitled to an appeal before the Administrative Hearing Commission (AHC) pursuant to Section 621.250 RSMo. To appeal, you must file a petition with the AHC within 30 days after the date this decision was mailed or the date it was delivered, whichever date was earlier. If any such petition is sent by registered mail or certified mail, it will be deemed filed on the date it is mailed; if it is sent by any method other than registered mail or certified mail, it will be deemed filed on the date it is received by the AHC. Any appeal should be directed to:

Administrative Hearing Commission
U.S. Post Office Building, Third Floor
131 West High Street, P.O. Box 1557
Jefferson City, MO 65102-1557
Phone: 573-751-2422
Fax: 573-751-5018
Website: <https://ahc.mo.gov>

Leasue Meyers, EI
Engineering Section
leasue.meyers@dnr.mo.gov

Chia-Wei Young, P.E.
Engineering Section
chia-wei.young@dnr.mo.gov

APPENDIX A- PROCESS DIAGRAM



APPENDIX B- MAP

