

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES
MISSOURI CLEAN WATER COMMISSION



CONSTRUCTION PERMIT

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

Sikeston Board of Municipal Utilities
P.O. Box 370
Sikeston, MO 63801

for the construction of (described facilities):

See attached.

Permit Conditions:

See attached.

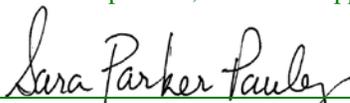
Construction of such proposed facilities shall be in accordance with the provisions of the Missouri Clean Water Law, Chapter 644, RSMo, and regulation promulgated thereunder, or this permit may be revoked by the Department of Natural Resources (Department).

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.

September 6, 2016
Effective Date


Sara Parker Pauley, Director, Department of Natural Resources

September 5, 2018
Expiration Date


John Madras, Director, Water Protection Program

CONSTRUCTION PERMIT

COLLECTION SYSTEM:

1. CONSTRUCTION PURPOSE

The Sikeston Business & Technology Park Wastewater Treatment Facility (WWTF) cannot reasonably meet the effluent limitations of the Missouri State Operating Permit No. MO-0120863. In addition, a major industrial user has requested an expansion which would increase the existing design flow of 400,000 gallons per day (gpd) to 800,000 gpd. The Sikeston Board of Municipal Utilities has elected to construct an effluent pump station to pump the effluent from the Sikeston Business & Technology Park WWTF to the Sikeston WWTP, MO-0035009. This will require the replacement of the existing Linn Street Lift Station prior to the discharge at the Sikeston WWTP. No increase in design flow is intended for the Sikeston WWTP.

2. FACILITY DESCRIPTION

The Sikeston Business & Technology Park WWTF, MO-0120863, is located near the intersection of Rose Parkway and Route HH, Sikeston, in Scott County, Missouri. The facility will increase the design flow to 800,000 gpd. This facility will no longer discharge to Ditch #4 after construction, but rather the effluent will be pumped to the Sikeston WWTP, MO-0035009.

The Sikeston WWTP, MO-0035009, is located at 860 South Ingram Road, Sikeston, in Scott County, Missouri. The facility will remain with the same design flow of 5 million gallons per day and serving a population equivalent of approximately 30,000 people. The discharge location remains the same to the receiving waterbody of the St. Johns Ditch.

3. REVIEW of MAJOR TREATMENT DESIGN CRITERIA

Construction will cover the following items:

- Recirculation Pump Station – Modification of the existing Recirculation Pump Station to a triplex pump station with each pump capable of operating at 1150 gallons per minute (gpm) at 25 feet of total dynamic head (TDH) with 12 horsepower (HP) motors. Replacement of the control panel and electrical components is included.
- Effluent Flow Splitter – The effluent flow splitter and gate valve will positively allow the discharge from the Sikeston Business & Technology Park WWTF flow to the new Effluent Pump Station.
- Piping modifications at the Sikeston Business & Technology Park WWTF.

- Effluent Pump Station – Construction and installation of the new duplex Effluent Pump Station with each pump capable of operating at 1060 gpm at 47 ft TDH with 20 HP motors. Construction to include approximately 2700 linear feet of 14-inch polyvinyl chloride (PVC) force mains with cleanouts and air release valves.
- Linn Street Lift Station – Replacement of the existing Linn Street Lift Station to a triplex pump station with each pump capable of operating at 2200 gpm at 56 ft TDH with 45 HP motors. Construction and installation of approximately 480 lf of ductile iron pipe (DIP) force mains.

The 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 collection system.

These activities will be in the city of Sikeston, Scott County and discharge to an existing sewer system to be treated at the Sikeston Wastewater Treatment Plant, Missouri State Operating Permit No. MO-0035009. Mr. Jeff Winders, P.E., Operations Manager, with the Sikeston Board of Municipal Utilities signed the construction permit application on July 12, 2016.

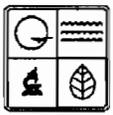
PERMIT CONDITIONS:

1. All construction shall be in accordance with the plans and specifications submitted by Waters Engineering Inc.
2. The department must be contacted in writing prior to making any changes to the approved 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(8).
3. 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 Southeast Regional Office per 10 CSR 20-7.015(9)(E)2.
4. This construction permit is invalid for projects required to comply with the requirements contained in 10 CSR 20-4, "Grants and Loans".
5. Protection of drinking water supplies shall be in accordance with 10 CSR 20-8.120(10). "There shall be no physical connections between a public or private potable water supply system and a sewer, or appurtenance thereto which would permit the passage of any wastewater or polluted water into the potable supply. No water pipe shall pass through or come in contact with any part of a sewer manhole."
 - A. Sewers in relation to water works structures shall meet the requirements of 10 CSR 23-3.010 with respect to minimum distances from public water supply wells or other water supply sources and structures.

- B. Sewer mains shall be laid at least 10 feet horizontally from any existing or proposed water main. The distances shall be measured edge-to-edge. In cases where it is not practical to maintain a 10 foot separation, the department may allow a deviation on a case-by-case basis, if supported by data from the design engineer. Such a deviation may allow installation of the sewer closer to a water main, provided that the water main is in a separate trench or on an undisturbed earth shelf located on either side of the sewer and at an elevation so the bottom of the water main is at least 18 inches above the top of the sewer. If it is impossible to obtain proper horizontal and vertical separation as described above for sewers, the sewer must be constructed of slip-on or mechanical joint pipe or continuously encased and be pressure tested to 150 pounds per square inch to assure water tightness.
 - C. Manholes shall be located with the top access at or above grade level.
 - D. Manholes should be located at least 10 feet horizontally from any existing or proposed water main.
 - E. Sewers crossing water mains shall be laid to provide a minimum vertical distance of 18 inches between the outside of the water main and the outside of the sewer. This shall be the case where the water main is either above or below the sewer. The crossing shall be arranged so that the sewer joints will be equidistant and as far as possible from the water main joints. Where a water main crosses under a sewer, adequate structural support shall be provided for the sewer to maintain line and grade. When it is impossible to obtain proper vertical separation as stipulated above, one of the following methods must be specified:
 - 1) The sewer shall be designed and constructed equal to the water pipe and shall be pressure tested to assure water tightness prior to backfilling; or
 - 2) Either the water main or sewer line may be continuously encased or enclosed in a watertight carrier pipe which extends 10 feet on both sides of the crossing, measured perpendicular to the water main. The carrier pipe shall be of materials approved by the department for use in water main construction.
6. 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 may only be obtained by means of the department's ePermitting system available online at www.dnr.mo.gov/env/wpp/epermit/help.htm. See www.dnr.mo.gov/env/wpp/stormwater/sw-land-disturb-permits.htm for more information.

7. A United States (U.S.) Army Corps of Engineers (COE) permit (404) and a Water Quality Certification (401) issued by the department or permit waiver may be required for the activities described in this permit. This permit is not valid until these requirements are satisfied. If construction activity will disturb any land below the ordinary high water mark of jurisdictional waters of the U.S. then a 404/401 will be required. Since the COE makes determinations on what is jurisdictional, you must contact the COE to determine permitting requirements. You may call the department's Water Protection Program at 573-751-1300 for more information. See www.dnr.mo.gov/env/wpp/401/ for more information.
8. Upon completion of construction:
 - A. The Sikeston Board of Municipal Utilities will become the continuing authority for operation, maintenance, and modernization of these facilities;
 - B. Submit the enclosed form Statement of Work Completed to the department in accordance with 10 CSR 20-6.010(5)(D);
 - C. Submit an electronic copy of the as built's if the project was not constructed in accordance with previously submitted plans and specifications;
 - D. Submit a Form B2 - Application for Permit for Facilities which receive basically domestic waste and have a design flow more than 100,000 gallons per day, Form--MO 780-1805, dnr.mo.gov/forms/780-1805-f.pdf, along with the modification fee of \$200. This modification is for the Sikeston WWTP, MO-0035009, to incorporate the discharge from the Sikeston Business & Technology Park WWTF, MO-0120863; and
 - E. Submit a Form J - Request for Termination of a State Operating Permit, Form--MO 780-1576, dnr.mo.gov/forms/780-1576-f.pdf. This termination is for the Sikeston Business & Technology Park WWTF, MO-0120863.

Emily Carpenter
Engineering Section
emily.carpenter@dnr.mo.gov



MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM
**APPLICATION FOR CONSTRUCTION PERMIT -
SEWER EXTENSION**

FOR DEPARTMENT USE ONLY	
APP NO.	CP NO.
AMOUNT RECEIVED \$500.00	CHECK NO. 4703
DATE RECEIVED 7-20-16	

NOTE: PLEASE READ THE ACCOMPANYING INSTRUCTIONS BEFORE COMPLETING THIS FORM

1.0 APPLICATION INFORMATION (Note - If any of the questions in this section are answered NO, this application may be considered incomplete and returned.)

- 1.1 Is this a Federal/State funded project? YES N/A Funding Agency: _____ Project #: _____
- 1.2 Has the Department of Natural Resources approved the proposed project's engineering report*? YES Date of Approval: _____ NO N/A
- 1.3 Is a copy of the appropriate plans* and specifications* included with this application? YES NO
- 1.4 Is a summary of design* included with this application? YES NO
- 1.5 Is the appropriate fee included with this application? (See instructions for appropriate fee.) YES NO
- * Must be affixed with a Missouri registered professional engineer's seal, signature and date.

2.0 PROJECT INFORMATION

2.1 NAME OF PROJECT
Sikeston Northwest Plant Effluent Pump Station and Forcemain and Replacement of the Linn Street Lift Station

ADDRESS	CITY	STATE	ZIP CODE	COUNTY
P. O. Box 370	Sikeston	MO	63801	Scott

2.2 Legal Description: ¼, ¼, ¼, Sec. 1,2,12, T 26N, R 13E

2.3 Project Components (check all that apply):
 Gravity sewers Pumping stations Force mains Alternative sewer system Other (Describe below.)

2.4 PROJECT DESCRIPTION
Construct a new 1,060-gpm duplex effluent pumping station and 27,000 linear feet of 14-inch forcemain to direct the flow from the Sikeston Northwest Treatment Plant to the Southeast Treatment Plant. Also install pumps and controls in the existing Northwest Plant re-circulation pump station and re-construct the existing Linn Street lift station with a new 3,000-gpm tri-plex submersible pump station.

2.5 DESIGN INFORMATION

- A. Population or number of lots to be served by this extension: no extension proposed
- B. Estimated flow to be contributed by this extension: Design Average Flow: _____ gpd Design Peak Hourly Flow: _____ gph
- C. Industrial Wastes: Type: _____ Flow: _____ gpd
- D. Receiving Sewer: Size: _____ inches Capacity: _____ gpm

3.0 PROJECT OWNER

NAME	TELEPHONE NUMBER WITH AREA CODE	E-MAIL ADDRESS
Sikeston Board of Municipal Utilities	(573) 475-3229	jwinders@sbmu.net

ADDRESS	CITY	STATE	ZIP CODE
P. O. Box 370	Sikeston	MO	63801

4.0 CONTINUING AUTHORITY: Permanent organization that will serve as the continuing authority for the operation, maintenance and modernization of the wastewater collection system

NAME	TELEPHONE NUMBER WITH AREA CODE	E-MAIL ADDRESS
Sikeston Board of Municipal Utilities	(573) 475-3229	jwinders@sbmu.net

ADDRESS	CITY	STATE	ZIP CODE
P. O. Box 370	Sikeston	MO	63801

4.1 A letter from the continuing authority, if different than the owner, is included with this application. YES NO N/A

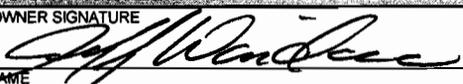
5.0 ENGINEER

ENGINEER NAME / COMPANY NAME	TELEPHONE NUMBER WITH AREA CODE	E-MAIL ADDRESS
John Chittenden / Waters Engineering	(573) 471-5680	jchittenden@waterseng.com

ADDRESS	CITY	STATE	ZIP CODE
P. O. Box 567	Sikeston	MO	63801

6.0 RECEIVING WASTEWATER TREATMENT FACILITY

NAME	TELEPHONE NUMBER WITH AREA CODE	E-MAIL ADDRESS
Sikeston Southeast Treatment Plant	(573) 471-3229	jwinders@sbmu.net

MISSOURI STATE OPERATING PERMIT # MO-0088536 <i>MO-0120863</i>		REMAINING CAPACITY (GPD) 2,000,000 gpd	
6.1 Has the receiving treatment facility agreed to accept the additional wastewater flow? <input checked="" type="checkbox"/> YES <input type="checkbox"/> NO			
6.2 A letter from the receiving wastewater treatment facility, if different than the continuing authority, is included with this application. <input type="checkbox"/> YES <input type="checkbox"/> NO <input checked="" type="checkbox"/> N/A			
7.0 PROJECT OWNER: I hereby certify that I am familiar with the information contained in this application and to the best of my knowledge and belief such information is true, complete, and accurate, and if granted this permit, I agree to abide by the Missouri Clean Water Law and all rules, regulations, orders, and decisions, subject to any legitimate appeal available to applicant under Missouri Clean Water Law.			
PROJECT OWNER SIGNATURE 			
PRINTED NAME Jeff Winders, PE		DATE 07/12/2016	
TITLE OR COPORATE POSITION Operations Manager, Sikeston BMU		TELEPHONE NUMBER WITH AREA CODE (573) 475-3229	E-MAIL ADDRESS jwinders@sbmu.net
Mail completed copy to:		MISSOURI DEPARTMENT OF NATURAL RESOURCES WATER PROTECTION PROGRAM P.O. BOX 176 JEFFERSON CITY, MO 65102-0176	

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