

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES
MISSOURI CLEAN WATER COMMISSION



GENERAL PERMIT for SEWER EXTENSION CONSTRUCTION

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

Construction Permit ID: MOGC00163
Title of Project: Chaffee WWTF
Owner: City of Chaffee
Address: 222 West Yoakum
Chaffee, MO 63740

The project will also include general site work appropriate to the scope and purpose of the project and will include all the necessary appurtenances to make a complete and usable collection system. The construction of this project will be in the vicinity of the county below and discharge to Receiving Permit ID below:

County: **Scott** Receiving Permit ID: **MO0025305**

for the construction of (described construction project):

Construction of approximately 231 lf of 15-inch PVC SDR-35 gravity sewer with 4 manholes, 2165 lf of 10-inch PVC SDR-21 force main, a duplex lift station with two 25 HP pumps, each capable of operating at 1222 gpm at a TDH of 68 feet, and an automatic permanent back-up diesel pump, to serve a design average flow of 0.51 MGD. Project also includes rehabbing and replacing pumps in six lift stations throughout the city with all identical 3 HP pumps.

New lift station project is in the vicinity of Hwy. 77 and Helen Ave. in the city of Chaffee, Scott County and discharges to the Chaffee WWTF, MO-0025305.

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.

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

October 18, 2016

Issue Date


Harry D. Bozoian, Director
Department of Natural Resources

October 17, 2018

Expiration Date


John Madras
Director, Water Protection Program

APPLICABILITY

1. This permit authorizes the construction of gravity sewer extensions, force mains, and lift stations. Storage basins, considered part of the collection system, are also included. Earthen basins are not included under this General Sewer Extension Construction permit.
2. A Sewer Extension Construction Permit may be required by the department due to compliance and enforcement actions.
3. This permit does not apply to:
 - A. Earthen storage basins;
 - B. Projects located within an Approved Sewer Program. These include the City of Blue Springs, City of Columbia, City of Kansas City, City of Jefferson City, City of Joplin, City of Lebanon, City of Springfield, City of St. Peters, Duckett Creek Sewer District, and Metropolitan St. Louis Sewer District;
 - C. Projects funded by the Department of Natural Resources;
 - D. Projects that substantially deviate from the Design Guides in 10 CSR 20-8; and
 - E. Exempt projects unless requested by the applicant or required by enforcement.

PREREQUISITES:

1. The General Sewer Extension Construction Permit application, appropriate fee, and a schedule for construction with the date on which construction will begin and anticipated completion date.
2. The engineering report, as required, plans and specifications each signed and sealed by a professional engineer registered in the State of Missouri. A Summary of Design is an acceptable substitute for the engineering report required by this permit prerequisite.
3. The Design Certification form signed and sealed by a professional engineer registered in the State of Missouri certifying the design of the system was done in accordance with 10 CSR 20-6 and 10 CSR 20-8.
4. A statement from the continuing authority was received accepting the wastewater for treatment.
5. A statement from the continuing authority was received accepting the responsibility for operation, maintenance, and modernization of these facilities

PERMIT CONDITIONS:

1. Contact the department's appropriate regional office 48 hours prior to starting construction. Contact information can be found at <http://dnr.mo.gov/regions/regions.htm>.
2. This permit authorizes the activities and scope of work detailed in the plans and specifications submitted with the request.
3. The construction must be in accordance with the design certification stating the plans and specifications comply with 10 CSR 20-6 and 10 CSR 20-8.

PERMIT CONDITIONS: (continued)

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 regional office per 10 CSR 20-7.015(9)(E)2.
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 ten feet (10') 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 ten foot (10') 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 ten feet (10') 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 ten feet (10') 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.

PERMIT CONDITIONS: (continued)

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 will 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. If this project eliminates a wastewater treatment facility, then a full closure plan shall be submitted to the department's appropriate regional office for review and approval of any permitted wastewater treatment system being replaced. In accordance with 10 CSR 20-6.010(12), the closure plan must meet the requirements outlined in Standard Conditions Part III, Section I, of the Missouri State Operating Permit. Closure shall not commence until the submitted closure plan is approved by the department. Form J – Request for Termination of a State Operating Permit, shall be submitted to the department's appropriate Regional Office for termination of any existing Missouri State Operating Permit, once closure is completed in accordance with the approved closure plan.
9. Submit a Statement of Work Completed Form to the department following completion of construction. Submit an electronic copy of the as built plans if the project was not constructed in accordance with previously submitted plans and specifications.

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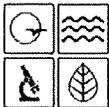
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RECEIVED 110-0025305 M06C00163
 AUG 22 2016 AP 24802 C16829



MISSOURI DEPARTMENT OF NATURAL RESOURCES
 WATER PROTECTION PROGRAM

APPLICATION FOR CONSTRUCTION PERMIT -
SEWER EXTENSION

FOR DEPARTMENT USE ONLY	
APP NO.	CP NO.
8/22/16	4080
DATE RECEIVED	3100

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: USDA-RD Project #: N/A
- 1.2 Has the Department of Natural Resources approved the proposed project's engineering report* or a Sewer Extension Design Checklist* included?
 Sewer Extension Design Checklist. (N/A to department funded projects.) Engineering Report Date of Approval: _____
- 1.3 Is a copy of the appropriate plans* and specifications* included with this application?
 YES Denote which form is submitted: Hard copy (1 minimum) and Electronic copy (See instructions.) NO
- 1.4 Is a summary of design* included with this application? YES NO
- 1.5 Is the appropriate fee (\$300) included with this application? 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
 Chaffee Wastewater System Improvements

PHYSICAL ADDRESS	CITY	STATE	ZIP CODE	COUNTY
222 W. Yoakum	Chaffee	MO	63740	Scott

2.2 Legal Description: ¼, NE ¼, SE ¼, Sec. 12, T 29N, R 12E

2.3 UTM Coordinates Easting (X): 89400500 W Northing (Y): 37111676 N
 For Universal Transverse Mercator (UTM), Zone 15 North referenced to North American Datum 1983 (NAD83)

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

2.5 PROJECT DESCRIPTION
 See attached page.

2.6 DESIGN INFORMATION

A. Population or number of lots to be served by this extension: 2,955

B. Estimated flow to be contributed by this extension: Design Average Flow: 0 gpd Design Peak Hourly Flow: 0 gph

C. Industrial Wastes: Type: _____ Flow: 0 gpd

D. Receiving Sewer: Size: _____ inches Capacity: _____ gpm

3.0 PROJECT OWNER

NAME	TELEPHONE NUMBER WITH AREA CODE	EMAIL ADDRESS	
City of Chaffee	(573) 887-3558	hortonl@cityofchaffee.com	
ADDRESS	CITY	STATE	ZIP CODE
222 W. Yoakum	Chaffee	MO	63740

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	EMAIL ADDRESS	
City of Chaffee	(573) 887-3558	hortonl@cityofchaffee.com	
ADDRESS	CITY	STATE	ZIP CODE
222 W. Yoakum	Chaffee	MO	63740

- 4.1 A letter from the continuing authority or the Continuing Authority and Receiving Wastewater Treatment Facility Acceptance form, 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	EMAIL ADDRESS	
Marvin Nesbit/Schultz Surveying & Engineering	(573) 686-0806	mdnesbit@sseeng.com	
ADDRESS	CITY	STATE	ZIP CODE
4482 Hwy PP	Poplar Bluff	MO	63901

6.0 RECEIVING WASTEWATER TREATMENT FACILITY		
NAME City of Chaffee	TELEPHONE NUMBER WITH AREA CODE (573) 887-3558	EMAIL ADDRESS hortonl@cityofchaffee.com
MISSOURI STATE OPERATING PERMIT # MO0025305	DESIGN AVERAGE FLOW (GPD) 510,000	REMAINING CAPACITY (GPD) 170,430
6.1 Has the receiving treatment facility agreed to accept the additional wastewater flow? <input type="checkbox"/> YES <input type="checkbox"/> NO		
6.2 A letter from the receiving wastewater treatment facility or the Continuing Authority and Receiving Wastewater Treatment Facility Acceptance form, 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 <i>Steve Loucks</i>		
PRINTED NAME STEVE LOUCKS	DATE 8-17-2016	
TITLE OR CORPORATE POSITION MAJOR	TELEPHONE NUMBER WITH AREA CODE 573-887-3558	EMAIL ADDRESS louckss@cityofchaffee
Mail completed copy to:	MISSOURI DEPARTMENT OF NATURAL RESOURCES WATER PROTECTION PROGRAM P.O. BOX 176 JEFFERSON CITY, MO 65102-0176	

PROJECT DESCRIPTION FOR CHAFFEE SEWER EXTENSION PERMIT

The proposed project consists of the construction of a new terminal lift station and the installation of 2,164 linear feet of 10" force main to replace the existing 8" force main running from the current terminal lift station to the existing lagoon treatment facility.

The rest of the proposed project consists of replacing all the lift stations in the wastewater system (with the exception of the terminal lift station) with 3 hp submersible pumps to provide a standard pump throughout the entire system. The existing pumps in the lift stations are similar in size to the replacement pumps. The largest existing motor for the lift stations was used to select the common pump size. This will ensure that there is enough pumping capacity at each lift station. None of the lift stations pump directly into another lift station, but rather pump into gravity mains in the wastewater collection system. Also there will be point repairs for structurally defective pipes and an estimated 27,474 linear feet of cured-in-place pipe lining. There are add alternates for rehabbing the manholes and testing/sealing the sewer main joints with chemical grout.