

Jeremiah W. (Jay) Nixon, Governor • Sara Parker Pauley, Director

DEPARTMENT OF NATURAL RESOURCES

www.dnr.mo.gov

APR 22 2014

Cedar View Estates Homeowners Association
ATTN: Larry Roth
112 South Main Street
Olds, IA 52647

RE: AP# 17508 – Sand Filter Expansion and Effluent Dechlorination – Cedar View Estates
WWTF, MO-0119563, Construction Permit No. 1622

Dear Mr. Roth:

The Missouri Department of Natural Resources' (Department) Water Protection Program has reviewed and approved the plans and specifications submitted by Lake Professional Engineering Services, Inc. Please find enclosed Construction Permit No. CP0001622.

This permit will terminate 12 months from the date of issuance. In accordance with 10 CSR 20-6.010(4)(G), the Department may grant an extension only one time. If you believe that an extension is necessary, you must submit a request and a justification in writing for the extension at least 30 days prior to the permit expiration date.

This construction permit does not supersede any requirements of the operating permit or enforcement actions. Nothing in this permit removes any obligations to comply with county or other local ordinances or restrictions.

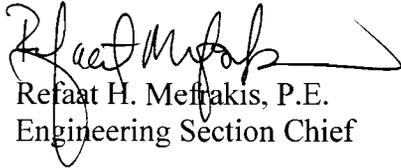
If you were adversely affected by this decision, you may appeal to have the matter heard by the Administrative Hearing Commission. To appeal, you must file a petition with the Administrative Hearing Commission within 30 days after the date this decision was mailed or the date it was delivered, whichever 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 Administrative Hearing Commission.

If you have any questions concerning this matter, please contact Keith Forck, of the Water Protection Program, at (573) 526-4232 or Missouri Department of Natural Resources, P.O. Box 176, Jefferson City, MO 65102-0176.

Thank you for your efforts to help ensure clean water in Missouri.

Sincerely,

WATER PROTECTION PROGRAM



Refaat H. Mefrakis, P.E.
Engineering Section Chief

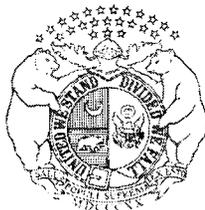
RHM:kfi

Enclosures

c: Bowden Campbell, Lake Professional Engineering Services, Inc.
Southwest Regional Office

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES

MISSOURI CLEAN WATER COMMISSION



CONSTRUCTION PERMIT

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

Cedar View Estates Homeowners Association
ATTN: Larry Roth
112 South Main Street
Olds, IA 52647

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).

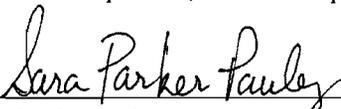
As the Department does not examine structural features of design or the efficiency of mechanical equipment, the issuance of this permit does not include approval of these features.

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.

April 23, 2014
Effective Date

April 22, 2015
Expiration Date


Sara Parker Pauley, Director, Department of Natural Resources


Director of Staff, Clean Water Commission or Designee

CONSTRUCTION PERMIT

I. CONSTRUCTION DESCRIPTION

Installation of addition of a second 24 feet by 34 feet recirculating sand filter bed, one Norweco Model 2000 tablet dechlorinator, new sample point, and all the necessary appurtenances to make the facilities complete and usable. This wastewater treatment facility is to serve the 18 lots in Cedar View Estates. The design flow is 4,995 gallons per day with a population equivalent (PE) of 66.6.

II. FINDING OF AFFORDABILITY

The Finding of Affordability is not applicable. The permittee is not a combined or separate sanitary sewer system or a publicly owned treatment works.

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 in accordance with the plans and specifications submitted by Lake Professional Engineering Services, Inc.
3. 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).
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 Southwest Regional Office per 10 CSR 20-7.015(9)(E)2.
5. This Construction Permit is invalid for projects required to comply with the requirements contained in 10 CSR 20-4, "Grants and Loans"
6. 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 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 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 should be located at least ten feet horizontally from any existing or proposed water main.
 - D.** 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:

 - a. 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
 - b. Either the water main or sewer line may be continuously encased or enclosed in a watertight carrier pipe which extends ten 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.
7. 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.
8. 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.

9. Upon completion of construction;
 - A. The Cedar View Estates Homeowners Association will remain 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 builts if the project was not constructed in accordance with previously submitted plans and specifications; and
 - D. Submit a Form B - Application for an Operating Permit for Domestic or Municipal Wastewater ($\leq 100,000$ gallons per day) along with the modification fee.

IV. REVIEW SUMMARY

1. AMMONIA

The Water Protection Program is providing this notice to inform permittees that EPA's published ammonia criteria for aquatic life protection is lower than the current Missouri criteria and will be proposed in the 2014 Missouri Water Quality Standards triennial review. More information can be found at <http://dnr.mo.gov/pubs/pub2481.pdf>.

According to the engineering report, facility indicated that the existing system will be adequate to treat for ammonia. If necessary, a recycle tank would be added before the recirculation tank in the future.

2. CONSTRUCTION PURPOSE

Facility required to install dechlorination in accordance with the schedule of compliance in the operating permit. Total Residual Chlorine effluent limits became effective on January 1, 2013.

3. FACILITY DESCRIPTION

Facility was designed for two recirculating sand filter beds and only one was originally constructed. The facility after construction will consist of septic tanks, two recirculating sand filter beds, chlorination and dechlorination.

4. COMPLIANCE PARAMETERS

Facility has reported no discharge for the past two years. Dechlorination is needed to meet the effluent limits for total residual chlorine.

5. REVIEW of MAJOR TREATMENT DESIGN CRITERIA

The submittal proposes tablet feeder dechlorination and a new sample point. A second recirculating sand filter was designed with a loading rate of 3.75 gallons per day per square foot of recirculating sand filter bed area.

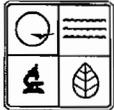
6. OPERATING PERMIT MODIFICATION

Draft Missouri State Operating Permit MO-0119563, which reflects this proposed construction, was on public notice for public comments from March 14, 2014 to April 14, 2014. There were no comments received regarding the draft permit.

Operating permit MO-0119563 will require a modification to reflect the construction activities. Upon construction completion, submit a modification fee and Form B - Application for an Operating Permit for Domestic or Municipal Wastewater ($\leq 100,000$ gallons per day).

Review Engineer: Keith Forck
Section Chief Approval: Refaat Mefrakis
Date: 04/15/14

C P0001622
AP17508 C12770



MISSOURI DEPARTMENT OF NATURAL RESOURCES
WATER PROTECTION PROGRAM, WATER POLLUTION CONTROL BRANCH
**FORM A – APPLICATION FOR CONSTRUCTION OR OPERATING PERMIT
UNDER MISSOURI CLEAN WATER LAW**

FOR AGENCY USE ONLY	
CHECK NUMBER	1189
DATE RECEIVED	11/21/14
FEE SUBMITTED	\$750.00

Note ▶ PLEASE READ THE ACCOMPANYING INSTRUCTIONS BEFORE COMPLETING THIS FORM.

1. This application is for:

- An operating permit and antidegradation review public notice
- A construction permit following an appropriate operating permit and antidegradation review public notice
- A construction permit and concurrent operating permit and antidegradation review public notice
- A construction permit (submitted before Aug. 30, 2008 or antidegradation review is not required)
- An operating permit for a new or unpermitted facility Construction Permit # _____
- An operating permit renewal: permit # MO- _____ Expiration Date _____
- An operating permit modification: permit # MO- _____ Reason: _____

1.1 Is the appropriate fee included with the application? (See instructions for appropriate fee) YES NO

2. FACILITY

NAME Cedar View Estates WWTF		TELEPHONE WITH AREA CODE (319) 931-3611	
ADDRESS (PHYSICAL) Lake Road 7-13 T		CITY Climax Springs	STATE ZIP CODE MO 65024

3. OWNER

NAME Cedar View Estates Homeowners Association		E-MAIL ADDRESS	TELEPHONE WITH AREA CODE (319) 931-3611
ADDRESS (MAILING) 112 South Main Street		CITY Olds	STATE ZIP CODE IA 52647

3.1 Request review of draft permit prior to public notice? YES NO

4. CONTINUING AUTHORITY

NAME Cedar View Estates Homeowners Association		TELEPHONE WITH AREA CODE (319) 931-3611	
ADDRESS (MAILING) 112 South Main Street		CITY Olds	STATE ZIP CODE IA 52647

5. OPERATOR

NAME	CERTIFICATE NUMBER	TELEPHONE WITH AREA CODE
ADDRESS (MAILING)	CITY	STATE ZIP CODE

6. FACILITY CONTACT

NAME Larry Roth	TITLE President	TELEPHONE WITH AREA CODE (319) 931-3611
		FAX

7. ADDITIONAL FACILITY INFORMATION

7.1 Legal Description of Outfalls. (Attach additional sheets if necessary.)

001 SE ¼ NW ¼ Sec 3 T 39N R 18w Camden County
 UTM Coordinates Easting (X): _____ Northing (Y): _____
 For Universal Transverse Mercator (UTM), Zone 15 North referenced to North American Datum 1983 (NAD83)

002 ¼ ¼ Sec T R _____ County
 UTM Coordinates Easting (X): _____ Northing (Y): _____

003 ¼ ¼ Sec T R _____ County
 UTM Coordinates Easting (X): _____ Northing (Y): _____

004 ¼ ¼ Sec T R _____ County
 UTM Coordinates Easting (X): _____ Northing (Y): _____

7.2 Primary Standard Industrial Classification (SIC) and Facility North American Industrial Classification System (NAICS) Codes.

001 – SIC 8641 and NAICS 237210 002 – SIC _____ and NAICS _____
 003 – SIC _____ and NAICS _____ 004 – SIC _____ and NAICS _____

8. ADDITIONAL FORMS AND MAPS NECESSARY TO COMPLETE THIS APPLICATION (Complete all forms that are applicable.)			
A.	Is your facility a manufacturing, commercial, mining or silviculture waste treatment facility? If yes, complete Form C (unless storm water only, then complete U.S. Environmental Protection Agency Form 2F per Item C below).	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
B.	Is your facility considered a "Primary Industry" under EPA guidelines: If yes, complete Forms C and D.	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
C.	Is application for storm water discharges only? If yes, complete EPA Form 2F.	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
D.	Attach a map showing all outfalls and the receiving stream at 1" = 2,000' scale.		
E.	Is wastewater land applied? If yes, complete Form I.	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
F.	Is sludge, biosolids, ash or residuals generated, treated, stored or land applied? If yes, complete Form R.	YES <input type="checkbox"/>	NO <input checked="" type="checkbox"/>
9. DOWNSTREAM LANDOWNER(S) Attach additional sheets as necessary. See Instructions. (PLEASE SHOW LOCATION ON MAP. SEE 8.D ABOVE).			
NAME			
ADDRESS		CITY	STATE ZIP CODE
10. I certify that I am familiar with the information contained in the application, that 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 the Missouri Clean Water Law to the Missouri Clean Water Commission.			
NAME AND OFFICIAL TITLE (TYPE OR PRINT)		TELEPHONE WITH AREA CODE	
Larry J. Roth President		(319) 931-3611	
SIGNATURE		DATE SIGNED	
		11/7/2014	

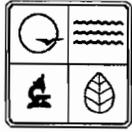
MO 780-1479 (01-09)

BEFORE MAILING, PLEASE ENSURE ALL SECTIONS ARE COMPLETED AND ADDITIONAL FORMS, IF APPLICABLE, ARE INCLUDED.

Submittal of an incomplete application may result in the application being returned.

HAVE YOU INCLUDED:

- Appropriate Fees?
- Map at 1" = 2000' scale?
- Signature?
- Form C, if applicable?
- Form D, if applicable?
- Form 2F, if applicable?
- Form I (Irrigation), if applicable?
- Form R (Sludge), if applicable?



MISSOURI DEPARTMENT OF NATURAL RESOURCES
 WATER PROTECTION PROGRAM, WATER POLLUTION CONTROL BRANCH
NO DEGRADATION EVALUATION
CONCLUSION OF ANTIDegradation REVIEW
 (Submit this form with the appropriate Permit Application)

RECEIVED

JAN 21 2014

WATER PROTECTION PROGRAM

1. FACILITY

NAME Cedar View Estates		COUNTY Camden	
ADDRESS (PHYSICAL) Lake Road 7-13 T	CITY Climax Springs	STATE MO	ZIP CODE 65024
FACILITY CONTACT: Larry Roth		TELEPHONE NUMBER WITH AREA CODE 319-931-3611	

2. NO DEGRADATION OPTIONS

- Renewal without changes
- Sewer extensions
- CSO elimination projects
- No-discharge with land application
- No-discharge with subsurface irrigation
- Recycle or reuse of effluent
- Discharge to a regional wastewater collection and treatment system.
- Addition or replacement of disinfection system for an existing wastewater facility: Ultraviolet or Ozone
 The facility will be required to meet regulatory effluent limits for bacteria.
- Addition or replacement for chlorination or dechlorination disinfection system of existing facility.
 The chlorination or dechlorination disinfection treatment system design must be for total removal of Total Residual Chlorine. Therefore, the facility will be required to meet the water quality-bases effluent limits determined by the permit writer or the following water quality-bases effluent limits:

Beneficial Use of Classified Water	MDL (µg/l)	AML (µg/l)
Warm-water fishery	17	8.2
Cold-water fishery	3.3	1.6

Note: These compliance limits for Total Residual Chlorine are much less than minimum quantification level, or ML, of 0.13. The facility will be required to meet regulatory effluent limits for bacteria.

- Other, please describe: No increase in permitted capacity

Consulted with Water Protection Staff:

NAME	DATE
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3. NO DEGRADATION PROPOSED PROJECT SUMMARY

Add second cell of recirculating coarse sand filter as first approved. Add dechlorination, a sampling location and flow measurement.

CONSULTANT: I have prepared or reviewed this form and all attached reports and documentation. The conclusion proposed is consistent with the Antidegradation Implementation Procedure and current state and federal regulations.	
SIGNATURE <i>Bowden Campbell</i>	DATE 01/08/2014
PRINT NAME Bowden Campbell	
TELEPHONE NUMBER WITH AREA CODE 660-723-0288	E-MAIL ADDRESS bowdencampbell@gmail.com
Owner: I have read and reviewed the prepared documents and agree with this submittal.	
SIGNATURE <i>JRB</i>	DATE 1/17/2014
TELEPHONE NUMBER WITH AREA CODE	E-MAIL ADDRESS
Continuing Authority: Continuing Authority is the permanent organization that will be responsible for the operation, maintenance and modernization of the facility. The regulatory requirement regarding continuing authority is available at www.sos.mo.gov/adrules/csr/current/10csr/10c20-6a.pdf . I have read and reviewed the prepared documents and agree with this submittal.	
SIGNATURE <i>JRB</i>	DATE 1/17/2014
TELEPHONE NUMBER WITH AREA CODE	E-MAIL ADDRESS
<p>Return completed form with the appropriate Permit Application to: Missouri Department of Natural Resources Water Protection Program Water Pollution Control Branch P.O. Box 176 Jefferson City, MO 65102</p>	

MO780-2026 (01/09)

