

*Exhibit No.:*  
*Issues:* *Connection Charges*  
*Witness:* *James A. Merciel, Jr.*  
*Sponsoring Party:* *MoPSC Staff*  
*Type of Exhibit:* *Direct Testimony*  
*Case No.:* *SR-2014-0247*  
*Date Testimony Prepared:* *November 14, 2014*

**MISSOURI PUBLIC SERVICE COMMISSION**

**UTILITY SERVICES DIVISION**

**DIRECT TESTIMONY**

**OF**

**JAMES A. MERCIEL, JR.**

**CENNTRAL RIVERS WASTEWATER UTILITY, INC.**

**CASE NO. SR-2014-0247**

*Jefferson City, Missouri*  
*November 2014*

**DIRECT TESTIMONY**

**OF**

**JAMES A. MERCIEL, JR.**

**CENTRAL RIVERS WASTEWATER UTILITY, INC.**

**CASE NO. SR-2014-0247**

**TABLE OF CONTENTS**

<b>INTRODUCTION.....</b>	<b>1</b>
<b>EXECUTIVE SUMMARY.....</b>	<b>2</b>
<b>BACKGROUND – PURPOSE OF CONNECTION CHARGES.....</b>	<b>3</b>
<b>BACKGROUND – ORIGINAL CREATION OF CONNECTION CHARGES .....</b>	<b>8</b>
<b>CONNECTION CHARGES – CURRENT ISSUES .....</b>	<b>9</b>
<b>STAFF RECOMMENDATIONS – INCREASE OF CONNECTION CHARGES.....</b>	<b>14</b>
<b>OVERCHARGES ISSUE, AND RECORDING OF EXPENSES.....</b>	<b>15</b>
<b>SUMMARY .....</b>	<b>16</b>

- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 0
- 1
- 2
- 3
- 4
- 5
- 6
- 7
- 8
- 9
- 0
- 1
- 2
- 3

2

3

4

5

## 6

7

8

9

0  
1

2

3  
4  
5  
6  
7

8

9  
20  
21  
22  
23

1 systems, and informally assist water and sewer utility companies with respect to day-to-day  
2 operations, planning, customer service issues and tariff rules. In the past, I have supervised  
3 engineers and technicians in the Water and Sewer Unit working on the above-described type  
4 of case work and informal matters. In the context of my position with Staff, I served on the  
5 American Water Works Association Small Systems Committee for three years, served on the  
6 National Association of Regulatory Utility Commissioners Staff Subcommittee on Water for  
7 approximately the past eighteen (18) years, and frequently participate in workshop and  
8 rulemaking sessions at the Missouri Department of Natural Resources.

9 Q. Have you testified before the Commission previously?

10 A. Yes. A list of cases in which I have provided testimony is included as  
11 Schedule JAM-1 to this direct testimony.

12 **EXECUTIVE SUMMARY**

13 Q. What is the purpose of this direct testimony?

14 A. The purpose of this direct testimony is to discuss issues associated with Central  
15 Rivers Wastewater Utility, Inc.'s (CRW) "Connection Charges," and present Staff  
16 recommendations.

17 Q. To what does the Connection Charges issue pertain?

18 A. The Connection Charges issue is primarily about CRW's request to increase  
19 Connection Charges in this rate case<sup>1</sup> and Staff's recommendation for such. But, extensions  
20 to other issues also involve CRW's past practice in collecting incorrect Connection Charges  
21 amounts from some customers, refunds of overcharges resulting from such incorrect amounts,

---

<sup>1</sup> CRW did not include a request to increase Connection Charges in its rate increase letter filed on March 11, 2014; rather the request was included with other ancillary items while discussing proposed tariff changes with Staff. Although total company revenue is most often at the center of rate case activity, other charges and rules are also routinely addressed in rate cases.

1 and recording of the expenses associated with CRW's activity related to Connection Charges  
2 that properly meets regulatory requirements and adheres to the principles of the Uniform  
3 System of Accounts.

4 Q. What information is included with this direct testimony?

5 A. This direct testimony will include, as background information, why existing  
6 Connection Charges were originally created, how they were originally determined, and  
7 activities that CRW undertakes for the customers' benefit in consideration of payment of  
8 Connection Charges. Additionally, this testimony will discuss how Staff would determine the  
9 dollar amounts of Connection Charges for a recommendation in this case, and dealing with  
10 the issues related to Connection Charges in this case.

11 **BACKGROUND – PURPOSE OF CONNECTION CHARGES**

12 Q. What is the purpose of CRW's Connection Charges?

13 A. The purpose of the Connection Charges, to be paid by new customers with  
14 newly-connected premises as per the tariff, are to pay the costs incurred by CRW for parts,  
15 material, and the installation of what will be a customer-owned facility known as a "STEP"  
16 system, or septic tank effluent pump and sometimes referred to as a pump unit. The STEP  
17 system is defined in the tariff, and will be described in more detail below. Additionally, the  
18 Connection Charges also are to pay for CRW's costs to connect new customers' premises,  
19 through the STEP system and further through a service sewer pipeline, to CRW's collecting  
20 sewer<sup>2</sup>. I have included with this direct testimony selected pages from CRW's currently-  
21 effective approved tariff as Schedule JAM-2. The first page of Schedule JAM-2, tariff Sheet

---

<sup>2</sup> "Collecting Sewer" is a defined term in the tariff that refers to CRW's sewer pipelines that are located throughout the subdivisions adjacent to customers' properties, which transport sewage from the customers' locations to CRW's treatment facilities. In parts of the tariff and perhaps elsewhere in this case, other terminology may be used including sewer mains, collection mains, collection system or other similar terms; however such terms normally refer to CRW's collecting sewers.

1 No. 14, states CRW's Connection Charges for single-family residential customers as a one-  
2 time charge of either \$4,500 or \$4,800, depending on the number of bedrooms in the home.  
3 Sheet No. 14 of the tariff also states what CRW does and does not do for the customer. All of  
4 the pages included in Schedule JAM-2 show rules and responsibilities regarding installation,  
5 ownership and maintenance of STEP systems.

6 Q. What is a STEP system?

7 A. "STEP" is an acronym for Septic Tank Effluent Pump. It is a system that  
8 utilizes an electric pump to remove partially treated sewage from a septic tank, and pump it to  
9 a sewer utility's central sewer system.

10 Q. What, in general, is a septic tank?

11 A. A septic tank is a closed watertight vessel, most often made of concrete,  
12 plastic, or fiberglass, that is designed for underground installation near a residence or other  
13 building used for sewage treatment. Septic tanks typically have an access hatch, or maybe  
14 two hatches, at ground level used for inspection and removing of solids or liquid from the  
15 tank, and an underground pipe inlet for sewage flow from the premises as well as a pipe outlet  
16 for discharge. Septic tanks vary in size depending on the application from perhaps 600 to  
17 1,500 or more gallons for residences. Sewage that is discharged into septic tanks from a  
18 residence or other type of premises undergoes biological breakdown and natural treatment by  
19 anaerobic bacteria, meaning non-oxygen breathing bacteria. Many residences in general,  
20 particularly in rural areas where there is no central sewer system, utilize septic tanks to treat  
21 the sewage, then discharge the treated sewage directly into the ground over a relatively large  
22 adjacent area using a "drain field." Normally in such situations there is no pumping involved,

1 and the septic tank system is an independent “on-site” sewage treatment facility that is in  
2 place only for a single residence or other type of structure.

3 Q. How are septic tanks used by customers connected to CRW’s sewer system?

4 A. Unlike ordinary rural independent on-site septic tank systems, the septic tanks  
5 used by CRW’s customers are connected to CRW’s sewer system, and they do involve  
6 pumping, hence the term “STEP” referring to the electric septic tank effluent pump as stated  
7 above. In all but one of CRW’s service areas, CRW’s sewer systems utilize a septic tank at  
8 each customer’s property for partial sewage treatment into which sewage flows by gravity  
9 from the customer’s home. Each septic tank is internally equipped with a filter to ensure solid  
10 matter stays in the tank, and the electric pump that pumps partially treated sewage water,  
11 without the solids, through a pressurized service sewer pipeline located on the customer’s  
12 property, to a pressurized collecting sewer that is owned by CRW.

13 Q. What happens after sewage is pumped from the STEP system and off of the  
14 customer’s property?

15 A. The partially treated wastewater, after being pumped to the CRW-owned  
16 pressurized collecting sewer, is further transported through the collecting sewer along with  
17 discharge from other customers, ultimately reaching one of CRW’s sewage treatment  
18 facilities for final treatment, and discharge to a creek with the approval of the Missouri  
19 Department of Natural Resources through the issuance of a discharge permit. The solids  
20 retained in the septic tank must be removed periodically, typically at intervals of several years  
21 but the exact frequency depends upon the individual customer’s usage.

22 As an example of a STEP system for illustration, included with this direct testimony as  
23 Schedule JAM-3 is a copy of part of the website of Orenco Systems, Inc., a company that

1 manufactures and markets sewage handling and treatment products, describing its STEP  
2 system product. The pictures on this site show the septic tank, with surface access and the  
3 pump vault, as well as the pump and control system assembly. CRW may have Orenco or  
4 other products in use but the general configuration for all STEP systems utilized by CRW is  
5 substantially as shown by this example.

6 Q. What does installation of a STEP system by CRW entail?

7 A. Installation of a STEP system by CRW on a residential customer's property  
8 normally consists of the following:

- 9 1. Procuring and providing the septic tank, pump and motor, effluent filter, electrical  
10 control panel, electrical wiring and conduit, electrical splice box, liquid level controls,  
11 heater, pipe and valves, miscellaneous electrical and mechanical parts, and  
12 miscellaneous material for construction work and installation of the STEP system.
- 13 2. Excavating on the customer's property, along with placing aggregate (rock) for  
14 bedding, and installing the septic tank at proper depth for access through either one or  
15 two hatches that are at or above finished ground surface, and such that sewage can  
16 flow from the house to the septic tank through a gravity service sewer. The location  
17 could be from within a few feet to several yards from the house.
- 18 3. Installing within the septic tank a pump vault and its contents. The pump vault  
19 contains a removable filter; an electric submersible pump; electric controls including  
20 water level sensors for the pump that start and stop it based on water level in the septic  
21 tank; a check valve to prevent reverse flow of sewage back into the customer's septic  
22 tank from CRW's system; an alarm that works by water level that alerts the customer  
23 and others if the pump is not working; and often a heater to prevent freezing of some



1 of the piping that is near ground level and vulnerable to outside temperature. The  
2 parts in the pump vault are referred to in CRW's tariff as the "Repairable Parts."

3 4. Excavating, constructing and connecting a pressure service sewer pipeline, a distance  
4 up to 800 lineal feet, from the STEP system to the collecting sewer pipeline which  
5 may or may not be off the customer's property, for example across the subdivision  
6 street; connecting the service sewer to the collecting sewer includes tapping of the  
7 collecting sewer pipe and installing fittings for connecting the service sewer, a valve  
8 on the service sewer to be able to turn off the customer's service either for  
9 discontinuance of service or for work to be done on the service sewer, and also could  
10 include another check valve on the service sewer. This distance is variable for each  
11 customer, and could involve a street crossing.

12 5. Excavating, constructing and connecting the customer's gravity service sewer from the  
13 outside of the house to the septic tank, of a distance up to 120 lineal feet.

14 6. Installing and connecting electrical wiring from the house to the STEP system electric  
15 control panel, and from the control panel to pump controls and other electrical  
16 components; the electric power is provided by the customer through the house  
17 electrical system to the exterior of the home. CRW would inspect the electrical wiring  
18 and circuit breaker related to the STEP system for proper construction within the  
19 home.

20 7. Backfilling the excavation, grading, and finishing the ground at excavation areas of  
21 the septic tank and pressurized portion of the service sewer, as needed perhaps  
22 depending upon other home construction activities on the lot.

23 Q. Who owns the STEP system?

1           A.     By the terms of the tariff as can be seen in Schedule JAM-2 on page 8, the  
2 customer owns the STEP system, after having paid CRW a Connection Charge that is  
3 designed to pay the average cost of installation that is described above.

4     **BACKGROUND – ORIGINAL CREATION OF CONNECTION CHARGES**

5           Q.     How were the existing Connection Charges determined, and when did they go  
6 into effect?

7           A.     The Connection Charges presently existing in CRW's approved tariff were  
8 determined by estimation of expenses. Estimation, and approval, of the existing Connection  
9 Charge of \$4,500 occurred in CRW's first certificate of convenience and necessity (CCN)  
10 case, SA-98-530, and became effective August 30, 1999. Schedule JAM-4, included with this  
11 direct testimony, shows the now-canceled tariff sheet with the \$4,500 as the Connection  
12 Charge for a single-family residence. The other existing Connection Charge, of \$4,800 for  
13 four bedroom or larger homes, was created and added in a subsequent CCN case, SA-2000-  
14 248, and became effective on March 24, 2000, and also at that time the \$4,500 became  
15 applicable to houses with up to three bedrooms. The estimates in these cases were developed  
16 by Staff and CRW working together, along with the vendors and agents that CRW was using  
17 at the time, by using estimates, actual costs and other available information regarding  
18 products, miscellaneous material, equipment and labor expected to be involved with STEP  
19 system construction and installation.

20          Q.     Why were these Connection Charges estimated?

21          A.     The reason why they were estimated is because CRW, in its first CCN case,  
22 was a new utility with no operating history, and thus there was no existence of any historical  
23 records to audit in order to determine actual cost. Using estimates of capital costs and

1 operating expenses on a pro-forma basis is not unusual in CCN cases involving new startup  
2 utilities where there is no operating history. Estimates were also used in the subsequent CCN  
3 case where the Connection Charges were modified, because even by that time CRW had  
4 experienced very little growth and its historical operations records were of limited usefulness.

5 Q. Do these above-described Connection Charges apply to all new customers?

6 A. No, the above-described Connection Charges only apply to new single-family  
7 residence customers who apply for service with CRW and where CRW undertakes  
8 construction of STEP system as described above. There are some customers in one  
9 subdivision that are connected to a gravity sewer system and who do not have STEP systems,  
10 for which the Connection Charges do not apply. There is also a provision for customers to  
11 undertake the tasks that are associated with Connection Charges on their own with CRW  
12 approval, in which case Connection Charges would not apply, although CRW has not been  
13 exercising such authorization of customers to undertake the work. Finally, connection of  
14 commercial customers or multi-family residential customers is not as standardized as single-  
15 family residential customers, and in those situations the Connection Charge as stated in the  
16 tariff is to reflect the actual cost incurred by CRW to connect such new customers.

17 **CONNECTION CHARGES – CURRENT ISSUES**

18 Q. Why are there issues in this case that involve the Connection Charges?

19 A. Connection Charges issues exist because CRW has requested an increase of the  
20 Connection Charge for any single-family residence from the existing \$4,500 or \$4,800 to  
21 \$6,000 per connection, but thus far in this case Staff and CRW have not been able to agree  
22 with respect to the Connection Charges issues, and the various aspects. As with any other rate  
23 case issue, Staff needs to audit and review CRW's proposal, work with CRW, along with

1 input from the Office of the Public Counsel and other parties to the case if there were any, and  
2 attempt to settle on the issue, as appropriate, to ensure that the change is prudent. Once the  
3 amount is finalized and settled between parties, the parties would present the agreement to the  
4 Commission for its approval.

5 Q. How many issues are related to Connection Charges?

6 A. There are three issues related to the Connection Charges.

7 Q. What is the first issue?

8 A. The first and primary issue is CRW is requesting to increase the Connection  
9 Charge to \$6,000 from the existing \$4,500 or \$4,800 per residential connection. CRW does  
10 not actually do the STEP system installation work itself; rather it utilizes an affiliated entity,  
11 Construction Services & Management, LLC (CS&M). The reason Staff has an issue with the  
12 requested increase is because neither CRW nor CS&M will make the relevant cost  
13 information available to Staff for auditing purposes, even though CRW should have more cost  
14 records for the past fifteen (15) years. Staff would ordinarily audit the costs incurred by CRW  
15 to undertake the STEP system installation and connection activities in order to make a  
16 recommendation to the Commission as to whether or not the increase is reasonable or offer an  
17 alternative position. But since CRW will not make the cost records available, Staff is unable  
18 to verify by audit whether or not any change to the dollar amounts for Connection Charges as  
19 stated in CRW's tariff is justifiable. Staff will offer alternative recommendations dealing with  
20 the requested increase.

21 Q. What is the second issue?

22 A. The second issue is CRW has been charging customers Connection Charges  
23 amounts other than what is specified in the existing tariff. Staff learned of this during the

1 audit of CRW's books and records. Staff takes the position that since the Connection Charges  
2 are specified by the tariff, refunds should be paid or credited to the specific customers who  
3 were overcharged. CRW states to Staff that they have charged the actual cost of doing the  
4 work. Even though CRW states that it is being charged the actual costs of installing the STEP  
5 systems through CS&M, adequate and auditable supporting documentation has not been  
6 provided to Staff to substantiate this claim, as also related to the first issue described above.  
7 Staff is therefore unable to verify the actual costs incurred by CS&M and charged to CRW for  
8 the STEP installations and unable to formulate a recommendation on Connection Charges that  
9 customers should be paying for the STEP installations. Please refer to Staff witness Mr.  
10 Young regarding auditing information.

11 Q. What is the third issue?

12 A. The third issue, since CRW claims that customers were charged Connection  
13 Charges for actual cost rather than the approved published tariff amount, is how such refunds  
14 should be handled on CRW's financial books; whether the refund amounts should be added to  
15 rate base as utility investment and offset the investment for contributions paid by customers as  
16 treated in the traditional manner as contributions-in-aid-of-construction (CIAC), or if the  
17 refund amount should simply be ignored. However, yet another point related to this aspect is  
18 that if any such capitalization treatment is afforded CRW to include refunds to be recorded,  
19 exactly what are the verified and audited actual costs that support such treatment. Staff  
20 cannot quantify such capitalization without auditing the records. The accounting treatment is  
21 also being addressed in direct testimony of Staff witness Matthew Young of the Auditing  
22 Unit.

1 Q. Does Staff take the position that CRW is responsible for STEP system  
2 installation?

3 A. Yes. CRW has the responsibility for STEP system installation, by the terms of  
4 the tariff as shown in Schedule JAM-2 on pages 1, 4 and 5.

5 Q. Does Staff take the position that CRW is responsible for justifying the  
6 Connection Charges?

7 A. Yes. As with any other rate case issue, CRW has the responsibility to support  
8 costs of its investment and the costs it incurs to operate the utility system. As such, Staff  
9 expects CRW to be able to produce adequate documentation in order that Staff can formulate  
10 and provide a position, which information would also serve to justify charges that the  
11 Commission is asked to approve. In rate cases, to formulate its recommendations, Staff uses  
12 actual historical information to determine its positions on justifications of charges to be  
13 approved, except in specific instances, such as CCN cases as described above, or perhaps  
14 other circumstances involving new or changing practice where historical information  
15 absolutely does not exist. In this case, historical records pertaining to STEP system  
16 installation either do or should exist. CRW's statements to Staff that the cost information is  
17 not available because an affiliate incurs the cost is not reasonable, in my opinion.

18 Q. Does Staff have an issue with CRW accomplishing the STEP installation work  
19 by utilizing an affiliate?

20 A. No, in principle Staff has no issue with this practice, and generally no  
21 preference on how CRW accomplishes the work of installing STEP systems, because that is  
22 largely a business decision. Similar to other utilities and other types of businesses CRW has  
23 options. It may accomplish the work with its own employees; or, have its affiliate CS&M do

1 the work as a contractor as mentioned above; or, have an independent contractor do the work;  
2 or, allow the customer or a contractor working for the customer do the work. Regardless,  
3 however, CRW needs to show to the Commission, to Staff, and ultimately to customers, that  
4 Connection Charges it requests for approval are justified, and that the work will be done  
5 properly. This justification would also be critical for those customers where the tariff  
6 specifies "actual cost" to be charged, in which case CRW would necessarily need to be able to  
7 show the customer the components that comprise the actual cost, and could also be expected  
8 to be able to justify the cost to the Staff in the event the customer filed an informal or formal  
9 complaint about the cost.

10 Q. How do you think CRW should show justification of the Connection Charges?

11 A. If CRW were to incur the expenses directly, then the Staff Auditing Unit  
12 should be able to study invoice and payment records of CRW for all of the expenses and  
13 materials used in accomplishing the above-described work. If CRW uses an affiliate to  
14 accomplish the work, as is actually happening, then CRW, with the cooperation of the  
15 affiliate, needs to produce the pertinent records of the affiliate to sufficient show the cost of  
16 parts and materials, the cost of equipment, and labor cost; because ultimately CRW is  
17 charging the customers a fee even if it is not performing the work itself, and if that work is  
18 performed by another entity, then there still needs to be full documentation of the charges to  
19 ensure that the costs are appropriate. If CRW were to utilize general contract work, then Staff  
20 would expect to see a reasonable bid process for work actually being farmed out.

21 Q. What has CRW done to help Staff justify the costs?

22 A. Not very much that would be considered to have provided complete and  
23 adequate information. So far, CRW has provided only some information it assembled by

1 copying selected examples of invoices, and stating in writing what its costs are. Any utility  
2 could do that for any expense but this type of information does not suffice as audited  
3 information, and certainly does not rise to the level of supported cost justification. The  
4 auditing procedure, and what is studied by auditors, will be addressed by Staff witness Mr.  
5 Young.

6 Q. Why can Staff not use the estimated information, similar to as it was used for  
7 estimates in the CCN cases?

8 A. Staff does not agree to using estimates for justification of expenses and costs in  
9 rate cases because actual and complete historical information is the most trustworthy and  
10 accurate type of information to use in order to determine actual costs. The actual, historical  
11 cost information should be used unless auditable information simply does not exist, such as  
12 for startup utilities as discussed earlier. CRW has been operating for many years now and has  
13 a substantial history of actual costs for the installations of the STEP systems. This actual cost  
14 information should be readily available to support the costs customers are being charged. As  
15 such, Staff believes it is necessary for CRW to support this costs component of its operations.

16 **STAFF RECOMMENDATIONS – INCREASE OF CONNECTION CHARGES**

17 Q. What is Staff's position regarding an increase to CRW's proposed Connection  
18 Charges to be stated in its tariff?

19 A. Since Staff is not able, by choice of CRW, to audit the expenses that comprise  
20 Connection Charges, Staff at this time takes the position that no increase should be approved.

21 Q. How can CRW address Staff's issue?

22 A. There are at least two ways the issue could be addressed.



- 1 1. CRW could agree to make relevant STEP system installation cost records  
2 available. This requires that CRW allow Staff access to the auditable  
3 information, which could mean providing limited but pertinent records of an  
4 affiliate, so that Staff can conduct its audit, process the information, and arrive  
5 at justification of a recommended amount.
- 6 2. CRW could delete the Connection Charges from its tariff, and change rules,  
7 such that customers install the STEP systems and service sewers. Ownership  
8 would be with customers as is the practice today, but the difference is that all  
9 new customers may use a contractor of their choice including CRW's affiliate  
10 if they wish. Audit information would not be necessary, since customers  
11 control costs by using competitive vendors. Staff's position is that CRW  
12 maintenance responsibility should be retained, on the basis that this is current  
13 practice and rates are set up to support maintenance. The customers would be  
14 required to install STEP systems and service sewers to CRW specifications and  
15 subject to inspection, so tariff rules would need to be developed to provide for  
16 this.

17 **OVERCHARGES ISSUE, AND RECORDING OF EXPENSES**

18 Q. What is Staff's position with regard to overcharging of Connection Charges?

19 A. Staff's position is that all overcharge amounts should be refunded to the  
20 specific customers who paid the Connection Charges.

21 Q. What is your recommendation for a timetable for CRW to issue refunds to the  
22 involved customers?

1           A.       Staff's recommendation for a refund timetable would be over a three (3) year  
2 period. This time is based on a maximum refund of \$1,500 for some customers, which would  
3 be \$41.67 per month; and if CRW credits customers' bills then credit issued monthly over this  
4 time period would not exceed the expected monthly rates to result from this case. CRW  
5 could, optionally, issue lump sum refunds or refund within a shorter period, but Staff  
6 recommends that all involved customers be treated equally, i.e. CRW should not, on its own  
7 decision, issue a lump sum to some customers and credit bills over time for others. Also,  
8 Staff recommends that CRW send monthly reports to Staff that includes information for each  
9 specific customer regarding the total overcharge amount, refund amounts paid or credited, and  
10 amount remaining to be refunded. Staff is open to negotiation on exactly how refunds could  
11 be issued, how to handle unusual circumstances, caveats regarding customers requesting  
12 termination of service, reporting, or other matters pertaining to issuing refunds.

13           Q.       Beyond the current overcharges issue, does Staff recommend that CRW, to the  
14 extent it spends more funds on STEP system and service sewer installation than it collects in  
15 Connection Charges, should record such capital expense on its books?

16           A.       Staff does not oppose such treatment of expense that is not recoverable  
17 through Connection Charges. However for any treatment of expenses afforded CRW,  
18 whether for past Connection Charge-related activity or future Connection Charge-related  
19 activity, those appropriate dollars booked as such need to be audited by Staff in order for Staff  
20 to determine that any such expense amounts are prudent, and for Staff to include them in any  
21 recommendations. This applies to this case and to future cases.

22 **SUMMARY**

23           Q.       Can you please summarize your direct testimony?

1           A.     Yes. This testimony may be summarized as follows:

- 2                   1. Staff recommends no increase in CRW's tariff-stated Connection Charges at  
3                   this time, on the basis that Staff has been unable to audit relevant cost  
4                   information.
- 5                   2. CRW must make relevant utility-related cost information available for this rate  
6                   case audit, even for expenses actually incurred by an affiliate, in order to  
7                   justify the requested Connection Charge increase, or alternatively revise rules  
8                   and cease imposing Connection Charges.
- 9                   3. CRW must to be able to show and justify expenses, even if incurred by an  
10                  affiliate, that it expects to include as rate base to reflect expenses that exceed  
11                  tariff-stated Connection Charge amounts; and actual expenses need to be  
12                  available for some customer service matters that involve actual cost.
- 13                  4. CRW has overcharged some customers Connection Charge amounts that  
14                  exceed the tariff-stated amounts, and refunds should be issued to such  
15                  customers.

16          Q.     Does this conclude your direct testimony?

17          A.     Yes.

Direct Testimony  
James A. Merciel, Jr.  
SR-2014-0247

Attachment A

Cases with Testimony by James A. Merciel, Jr.

**SR-2014-0247 – Central Rivers Wastewater Utility, Inc.  
Cases with Testimony by James A. Merciel, Jr. (not all inclusive)  
November 2014**

Algonquin Water Resources

WR-2006-0425

Aqua Missouri, Inc.

SC-2007-0044

Big Island – Folsom Ridge

WO-2007-0277

Bill Gold Investments, Inc.

WC-93-276 (11/5/93) – Receivership case

Blue Lagoon, LLC

SO-2008-0358

Camelot Utility Co.

WA-89-1

Capital City Water Co.

WR-94-297

WR-90-118

WO-89-76 – plant capacity study

WR-88-215

WR-83-165.

Davis Water Company

WC-87-125 and WC-88-288 - quality of service, lack of needed upgrades

Along with a proceeding in the Circuit Court in Wayne County approx 1988

Environmental Utilities, LLC

WA-2002-65 (11/2001) Certificate case

Finley Valley Water Company / Public Funding Corporation, City of Ozark

WM-95-423

Gascony Water Company, Inc.

WA-97-510

House Springs Sewer Co.

SC-2008-0409

Lake Region Water and Sewer Co.

SR-2010-0110 and WR-2010-0111

WR-2014-0461

Lake Saint Louis Sewer Co.

SR-78-142

SA-78-147 - expansion of service area

SC-78-257 - The Nine-Twelve Investment Co., et al Oak Bluff Preserve vs.

Lake Saint Louis Sewer co, regarding method of providing service.

SO-81-55 and Circuit Court in St. Charles County - alleged improper

discontinuance of service along with injunction., approx 1980 or 1981

Lincoln County Sewer & Water, LLC

SR-2013-0321 and WR-2013-0322

Merriam Woods Water Company

WC-91-18 and WC-91-268 – quality of service

**SR-2014-0247 – Central Rivers Wastewater Utility, Inc.  
Cases with Testimony by James A. Merciel, Jr. (not all inclusive)  
November 2014**

Mill Creek Sewer System, Inc.

Proceeding by MO Attorney General in Circuit court in St. Louis County, Cause  
No. 611261, 1998 DNR water pollution violations

Miller County Water Authority

WC-95-252 and Circuit Court in Camden County approx 1995 - Complaint by  
Staff regarding operating without a certificate

Missouri American Water Company

SA-2012-0066 (Saddlebrooke)

WR-2011-0337

WR-2008-0311 and SR-2008-0312

WR-2007-0216

WC-2006-0345 - Dione C. Joyner, Complainant

WR-2003-0500

WR-2000-281

WR-97-237/SR-97-206

WT-97-227 / WA-97-45 / WC-96-441 - Complaint by Water District 2 regarding  
customers outside service area, and service area expansion

WA-97-46 – certificate case for St. Joseph wellfield

WR-95-205

WR-95-174

WR-93-212

WR-91-211

WR-89-265

WR-87-177

WR-85-16

Missouri Cities Water Company

WR-95-172/SR-95-173

WR-92-207

Proceeding in Circuit Court in Audrain County, CV192-40SCC approx 1992 city  
of Mexico attempted acquire by condemnation of water system

WR-91-172/SR-91-174

WR-90-236

WR-89-178/SR-89-179

WC-88-280 – William J. Fox d/b/a Fox Plumbing vs MO Cities,  
service line/main extension matter

WR-86-111/SR-86-112

WC-86-20 – Mexico Doctor's park, main extension

WR-85-157

WR-84-51

WR-83-15/SR-83-14

North Oak Sewer District, Inc.

SR-2004-0306

**SR-2014-0247 – Central Rivers Wastewater Utility, Inc.  
Cases with Testimony by James A. Merciel, Jr. (not all inclusive)  
November 2014**

Osage Water Co.

WA-99-256 (8/5/99) - Lakeview Beach certificate case

WC-2003-0134 (10/31/02) - Receivership case

Raytown Water Company

WR-92-85 / WR-92-88

WR-94-211

Southwest Village Water Company

WO-89-187 – quality of service

WC-89-138 (included testimony in Circuit Court in Greene County 1989)

St. Louis County Sewer Co.

SC-83-255 – complaints about stormwater inflow/infiltration

St. Louis County Water Company

WR-97-382

WR-96-263

WR-95-145

WR-94-166

WR-93-204

WR-91-361

WR-88-5

WR-87-2

WR-85-243

WC-84-29 – Dewey Eberhardt vs St. Louis County Water Co., fire protection

WR-83-264

WR-82-249

WC-79-251-Natural Bridge Development Corp vs. St. Louis County Water Co.,  
meter accuracy/testing

Stoddard County Sewer Co.

SO-2008-0289 – receivership, transfer, etc.

Suburban Water and Sewer Co.

Injunction hearing, Circuit Court in Boone County 07BA-CV02632, June 2007

WC-2007-0452

WC-84-19 – service issues

United Water Missouri

WR-99-326

Villa Park Heights Water Co.

WA-86-58

Warren County Water and Sewer Co. -

Circuit court case in Warren County CV597-134CC, September 1997 dispute  
with homeowners over a lot proposed to be a tank site

WC-2002-155 / SC-2002-260 - March 2002 Receivership case filed by the  
Office of the Public Counsel

West Elm Place Corporation

Circuit court lawsuit case in Jefferson County, approx 1988 Customer's lawsuit  
for damage from sewage backup

Direct Testimony  
James A. Merciel, Jr.  
SR-2014-0247

Attachment B

Selected Sheets from Central Rivers Wastewater Utility, Inc. Tariff  
Pertaining to Connection Charges and STEP Systems



Name of Utility: **Central Rivers Wastewater Utility, Inc.**

For Service Areas in the State of Missouri

## Rules Governing Rendering of Sewer Service

**SCHEDULE OF SERVICE CHARGES****Missouri Public  
Service Commission**

REC'D FEB 10 2000

**CONNECTION CHARGES:**

All single family residential customers utilizing a STEP system that the company will maintain shall pay a one-time \$4,500.00 connection charge for three bedroom and smaller homes and \$4,800 for four bedroom and larger homes when making application for service. This charge is inclusive of all accessories and inspections as hereinafter referenced. All non-residential or multi-family service connection charges shall be at actual cost incurred by the Company in accordance with Rules 10 and 11. The Company shall have sole discretionary authority to decide who may install equipment and will provide a letter to any person, company, incorporation or other business entity that has the authority to install equipment that will ultimately be operated and maintained by Company. Upon request that person, company, incorporation or other business entity shall produce a letter stating in writing that they are so granted authority to install equipment that will ultimately be operated and maintained by Company and if so unable to produce said letter, that entity or person shall not install any equipment to be ultimately operated and maintained by company. \*

This charge does include: Cost for connecting the home to the sewer main. This includes any and all costs associated with the following: watertight septic tank, post construction testing of tank and system, pump or pumps, effluent filters, electrical control panel, splice box and wiring from control panel to septic tank, wiring from stubbed out electrical service at customer home to control panel (see Rule No. 6), 4" SCH 40 (or equal) piping from single family residence to septic tank up to 120 linear feet, 1" SCH 40 (or equal) piping from septic tank to main collection systems line up to 800 linear feet, risers and lids, service connection valves and appurtenances, inspections.

This charge does not include: any surveying to determine actual location of easements or property lines for customer, any electrical service beyond connecting to a 30 amp dedicated circuit and another minimum 20 amp circuit that need not be a dedicated circuit (minimum two separate circuits, see Rule 6) single phase electrical connection stubbed by customer to exterior of house, any plumbing closer than 5' of customer's building or residence,

Connection charges for STEG and Gravity collection systems will be based on actual costs as allowed by the Missouri Public Service Commission. The cost for a connection charge to a STEG or Gravity flow collection system will be stated in the Company's Tariff when data is obtained to present a reasonably accurate cost.

**Missouri Public  
Service Commission**

\*indicates new rate or text

+indicates change

FILED MAR 24 2000

DATE OF ISSUE

February 7, 2000

DATE EFFECTIVE

Month Day Year

Month Day Year

ISSUED BY : Mark Geisinger President P. O. Box 459, Kearney, MO 64060

Name of Officer

Title

Address

MAR 24 2000

**FILED**

Name of Utility: **Central Rivers Wastewater Utility, Inc.**  
For Service Areas in the State of Missouri

Rules Governing Rendering of Sewer Service

**Rule 1. DEFINITIONS (continued)**

- (N) "NON-DOMESTIC SEWAGE" is all sewage other than domestic sewage including, but not limited to, commercial or industrial wastes. (See Rule 6 pertaining to Improper Waste or Excessive Use.)
- (O) "pH" is the relative degree of acidity or alkalinity of water as indicated by the hydrogen ion concentration. pH is indicated on a scale reading from 1-14, with 7 being neutral, below 7 acid, and above 7 alkaline; more technically defined as the logarithm of the reciprocal of the hydrogen ion concentration.
- (P) "REPAIRABLE PARTS" are pump motor, effluent pump, liquid level control, and heater, if applicable. This does not include the collection tank and piping from the dwelling structure to the collection sewer.
- (Q) A "SERVICE CONNECTION" is the connection of a service sewer to the Company collecting sewer either at the bell of a "Y" branch or the bell of a saddle placed on the barrel of the collecting sewer or at the check valve of a pressure service connection.
- (R) A "SERVICE SEWER" is a pipe with appurtenances owned and maintained by the Customer, used to conduct sewage from the Customer's premises to the collecting sewer excluding service wyes or saddles or to a septic tank that is part of a STEP or STEG collection system. Company shall install this service line unless Company grants permission in writing to Customer to install this service line. Customer shall abide by all details, restrictions and requirements provided to Customer if permission is granted to Customer to install this service.
- (S) "STEG Tank" is a septic tank effluent gravity tank consisting of a watertight septic tank, control panel (optional), and effluent filter. Individual STEG tanks may serve one, two or multiple combinations of residences or commercial facilities when appropriately sized.

\*indicates new rate or text

+indicates change

DATE OF ISSUE July 23, 1999 DATE EFFECTIVE August 30, 1999  
Month Day Year Month Day Year

ISSUED BY : Mark Geisinger President 205 S. Spartan Drive, Richmond, MO 64085  
Name of Officer Title Address

**FILED**

**MO PSC**

Name of Utility: **Central Rivers Wastewater Utility, Inc.**  
 For Service Areas in the State of Missouri

Rules Governing Rendering of Sewer Service

**Rule 1. DEFINITIONS (continued)**

- (T) "STEP Tank" is a septic tank effluent pumping tank consisting of a watertight septic tank, control panel, pump and effluent filter. Individual STEP tanks may serve one, two or multiple combinations of residences or commercial facilities when appropriately sized.
- (U) A "SUBDIVISION" is any land in the State of Missouri which is divided or proposed to be divided into two or more lots or other divisions of land, whether contiguous or not, or uniform in size or not, for the purpose of sale or lease, and includes resubdivision thereof.
- (V) "SUSPENDED SOLIDS" are the concentration of insoluble materials suspended or dispersed waste expressed in milligrams per liter on a dry weight basis as determined by standard procedures.
- (W) "TERMINATION OF SERVICE" is the cessation of the use of sewer service requested by the customer. Such TERMINATION OF SERVICE shall be accomplished by a method verified and recognized by the company, and may include physical disconnection of the service sewer, termination or disconnection of water service by the water utility, or the company's observation of non-occupancy of the unit served.
- (X) The word "UNIT or BUILDING UNIT" shall be used herein to define the standard user or property served. Each mobile home in a mobile home park and each residential dwelling unit in a multi-unit building is a separate unit whether owned or leased or residential or commercial.

\*indicates new rate or text

+indicates change

DATE OF ISSUE July 23, 1999 DATE EFFECTIVE August 30, 1999  
 Month Day Year Month Day Year

ISSUED BY : Mark Geisinger President 205 S. Spartan Drive, Richmond, MO 64085  
 Name of Officer Title Address

98-530



Name of Utility: **Central Rivers Wastewater Utility, Inc.**  
 For Service Areas in the State of Missouri

Rules Governing Rendering of Sewer Service

**Rule 4. APPLICATION FOR SEWER SERVICE (continued)**

- (G) The Company will make all sewer service taps and connections to mains upon payment by the Customer of all fees required for connection. In the case of a single family residence to be connected to a STEG or STEP system, Customer or Customer's plumber shall provide all house piping. Company will install sewer piping from the house piping to STEP or STEG tank and shall install the STEP or STEG tank and all related equipment as described under the Schedule of Charges for the particular service area, unless Company grants written approval to have Customer or Customer's plumber to provide the installation. Details of inspection procedures will be provided to the Customer or Customer's plumber if permission is so granted for the Customer to install any part of the system beyond house piping. Customer shall provide electrical service to the exterior of the house in the form of one dedicated 30 amp circuit and one separate 20 amp minimum circuit that need not be a dedicated circuit. The Customer or Customer's plumber shall advise the Company during normal business hours and a minimum of six working days in advance of when the customer expects to have service installed.
- (H) When sewer charges are based on water usage, the Company reserves the right to refuse sewer service to any applicant unless said Applicant agrees to install a water meter accessible to the Company, so that there will be a basis for sewer charges. The Company and Customer may agree to an estimated water use amount, on an interim basis for a period not to exceed six (6) months, to allow time to install suitable metering equipment.
- (I) When service is requested for a multi-unit building, there shall be one party responsible as the customer unless either:
- 1) each unit has an individual service sewer, or,
  - 2) each unit is provided water utility service through an individual water meter by the company or by another water utility with which the company has an approved agreement for discontinuance of water service for non-payment of a sewer bill, and there exists one responsible party for maintenance of sewer facilities common to all customers within the building.
- (J) The Company will provide to the Customer an Application for Sewer Service. This Application will clearly state who is to install and maintain each part of the service connection, whether it be the Customer or the Company.

\*indicates new rate or text

+indicates change

DATE OF ISSUE July 23, 1999 DATE EFFECTIVE August 30, 1999  
 Month Day Year Month Day Year

ISSUED BY : Mark Geisinger President 205 S. Spartan Drive, Richmond, MO 64085  
 Name of Officer Title Address

**FILED**  
**MO PSC**

98-530

Name of Utility: **Central Rivers Wastewater Utility, Inc.**  
 For Service Areas in the State of Missouri

**Rules Governing Rendering of Sewer Service**

**Rule 6. STEP or STEG Systems**

- (A) This rule applies to customers on either a STEP or STEG collection system and is not applicable to customers on a conventional gravity collection system.
- (B) The Company will install the STEP or STEG unit required for the service area at a cost as established under the Schedule of Charges for that service area. Prior to connection the Customer shall be required to meet certain obligations as detailed in these rules. Electricity costs for pump operation shall be the responsibility of the Customer.
- (C) For a single family residence with three bedrooms or fewer the Company will install a minimum 1,000 gallon watertight tank, pump or pumps, effluent filters, electrical control panel, splice box and wiring from control panel to septic tank, wiring from stubbed out electrical service at customer home to control panel (as detailed under Part E of this Rule 6), 4" SCH 40 (or equal) piping from single family residence to septic tank up to a specified linear feet as described under Schedule of Charges for the service area, 1" SCH 40 (or equal) piping from septic tank to main collection systems line up to a specified linear feet as described under Schedule of Charges for the service area, risers and lids, service connection valves and appurtenances, inspections. For a single family residence with four or five bedrooms the Company will install a minimum 1,500 gallon watertight tank and other equipment as noted above. Sizing of tanks and equipment for homes with more than five bedrooms will be handled on a case by case basis. The connection charge listed under Schedule of Charges covers all the above mentioned items in Part C of this Rule 6. The connection charge listed under Schedule of Charges does not include: any surveying to determine actual location of easements or property lines for customer, any electrical service beyond connecting to electrical service connection supplied to the outside of the outside wall of the house in the form of one 30 amp dedicated circuit and one minimum 20 amp circuit that need not be a dedicated circuit (minimum two separate circuits), any plumbing closer than 5' of customer's building.
- (D) Customer shall furnish to the exterior of the house wiring for one 30 amp dedicated circuit and one 20 amp circuit that need not be a dedicated circuit.

\*indicates new rate or text

+indicates change

DATE OF ISSUE July 23, 1999 DATE EFFECTIVE August 30, 1999  
 Month Day Year Month Day Year

ISSUED BY : Mark Geisinger President 205 S. Spartan Drive, Richmond, MO 64085  
 Name of Officer Title Address

**FILED**  
**MO PSC**

98-530



Name of Utility: **Central Rivers Wastewater Utility, Inc.**  
For Service Areas in the State of Missouri

Rules Governing Rendering of Sewer Service

**Rule 6. STEP or STEG Systems (Continued)**

- (E) The Customer shall furnish a written sketch that approximates the location where the Customer wishes the STEP or STEG tank to be located. Company will endeavor to locate tank in a location as close as practical to the requested location, however, actual final location of the STEP or STEG tank is the sole and exclusive responsibility of the Company. Company shall then install STEP or STEG tank and all related equipment as stated in this rule and shall connect the STEG or STEP tank to the main collection system as applicable and detailed under Schedule of Charges for a particular service area. Application, accompanied by any authorized service line tap fee, must be filed in writing at the Company's business office during normal business hours, six days in advance, stating the street, house number, name of applicant, name of property owner and time at which tap is to be made, and the Company shall not be required to supply sewer service unless these condition are met. One connection shall not service more than one property unless specifically granted by the Company in writing.
- (F) A service connection unit shall be furnished and installed by the Company prior to the connection of the pressure line from a STEP tank to the main collection system. The service connection unit shall include of a check valve and shut off valve.
- (G) In cases of discontinuance of sewer service pursuant to the Company's approved rules, sewer service may be disconnected by the Company by locking the shut off valve in the closed position. Service shall not be resumed again except upon payment of all delinquent charges, plus any applicable approved service charge to cover the costs of effectuating resumption of service.
- (H) The gravity service sewer from the building to the effluent pump unit, the tank, and the pressure service sewer from the pump unit to the collecting sewer shall be owned by the Customer.
- (I) The STEP unit and pressure effluent line from the STEP tank to the main collection line will be maintained by the Company provided Customer allows access to Customer's property for such maintenance. Company may discontinue service to Customer if Customer fails to allow Company access to property for the purposes of performing maintenance on the STEP unit, pressure line from the STEP unit to the main collection line or other general maintenance necessary to provide a safe and efficient collection system.

\*indicates new rate or text

+indicates change

DATE OF ISSUE July 23, 1999 DATE EFFECTIVE August 30, 1999  
Month Day Year Month Day Year

ISSUED BY : Mark Geisinger President 205 S. Spartan Drive, Richmond, MO 64085  
Name of Officer Title Address

**FILED**  
**MO PSC**

98-530

Name of Utility: **Central Rivers Wastewater Utility, Inc.**  
 For Service Areas in the State of Missouri

**Rules Governing Rendering of Sewer Service**

**Rule 6. STEP or STEG Systems (Continued)**

- (J) The STEG unit and effluent gravity line from the STEG tank to the main collection line will be maintained by the Company provided Customer allows access to Customer's property for such maintenance. Company may discontinue service to Customer if Customer fails to allow Company access to property for the purposes of performing maintenance on the STEG unit, effluent line from the STEG unit to the main collection line or other general maintenance necessary to provide a safe and efficient collection system.
- (K) The Company shall perform two preventive maintenance calls per year on each effluent pump unit in service. Normally, these will be made in the spring and fall seasons. Preventive maintenance shall consist of the following work:
1. Pull and clean liquid level control device,
  2. Run controls, including alarm system, through one complete cycle,
  3. Check the check valves for proper operation. Clean or replace as necessary,
  4. Check, and if necessary, remove solid waste from tank.
- (L) For every 100 pump units in service, the Company shall have on hand two effluent pumps, two effluent pump repair kits, two motors, five liquid level control units, and an adequate supply of check valves. The Company shall have at least one of each of the above items for each brand or type of pump in use.
- (M) The Company shall be responsible for maintenance of the repairable parts, and shall perform emergency repairs on said parts. At the Company's option, an emergency service call may constitute a preventive maintenance call if a reasonable amount of time has elapsed since the last preventive maintenance call, and if all other maintenance checks are performed.
- (N) Preventive maintenance calls, service calls for repairable parts, and repairable parts shall be provided at no extra charge to the Customer for replacement of defective parts or parts of the effluent pump damaged by lightning. The Company, however, shall not be liable for parts or labor necessary due to damage caused by misuse of the pump unit.

\*indicates new rate or text

+indicates change

DATE OF ISSUE July 23, 1999 DATE EFFECTIVE August 30, 1999  
 Month Day Year Month Day Year

ISSUED BY : Mark Geisinger President 205 S. Spartan Drive, Richmond, MO 64085  
 Name of Officer Title Address

**FILED**  
**MO PSC**

98-530

Name of Utility: **Central Rivers Wastewater Utility, Inc.**  
 For Service Areas in the State of Missouri

Rules Governing Rendering of Sewer Service

**Rule 6. STEP or STEG Systems (Continued)**

- (O) The Company shall present to the Customer, at the time of application for service, information regarding what services are available from the Company, and what will be provided free of charge.
- (P) Components of a STEP or STEG unit will meet certain specifications which shall be on file at the Company's office. Company will periodically update these specifications as technology improves.
- (Q) STEG tanks serving a residence or commercial facility that are located on private property must have an easement that allows easy access for the Company to maintain and operate equipment located in the tank. Customer maintains ownership of the STEG tank, however, Company has sole and exclusive rights for maintaining any equipment at, in or related to the STEG tank. Replacement of control panel equipment, effluent filters or other associated parts will be provided by, and only by, the Company.
- (R) STEP tanks serving a residence or commercial facility that are located on private property must have an easement that allows easy access for the Company to maintain and operate equipment located in the tank. Customer maintains ownership of the STEP tank, however, Company has sole and exclusive rights for maintaining any pumps or equipment at, in or related to the STEP tank. Replacement of pumps, control panel equipment, effluent filters or other associated parts will be provided by, and only by, the Company.
- (S) Company may discontinue service to Customer if Customer fails to allow Company access to property for the purposes of performing maintenance on the STEP unit, STEG unit, control panel or other general maintenance necessary to provide a safe and efficient collection system.

\*indicates new rate or text

+indicates change

DATE OF ISSUE July 23, 1999 DATE EFFECTIVE August 30, 1999  
 Month Day Year Month Day Year

ISSUED BY : Mark Geisinger President 205 S. Spartan Drive, Richmond, MO 64085  
 Name of Officer Title Address

**FILED**  
**MO PSC**

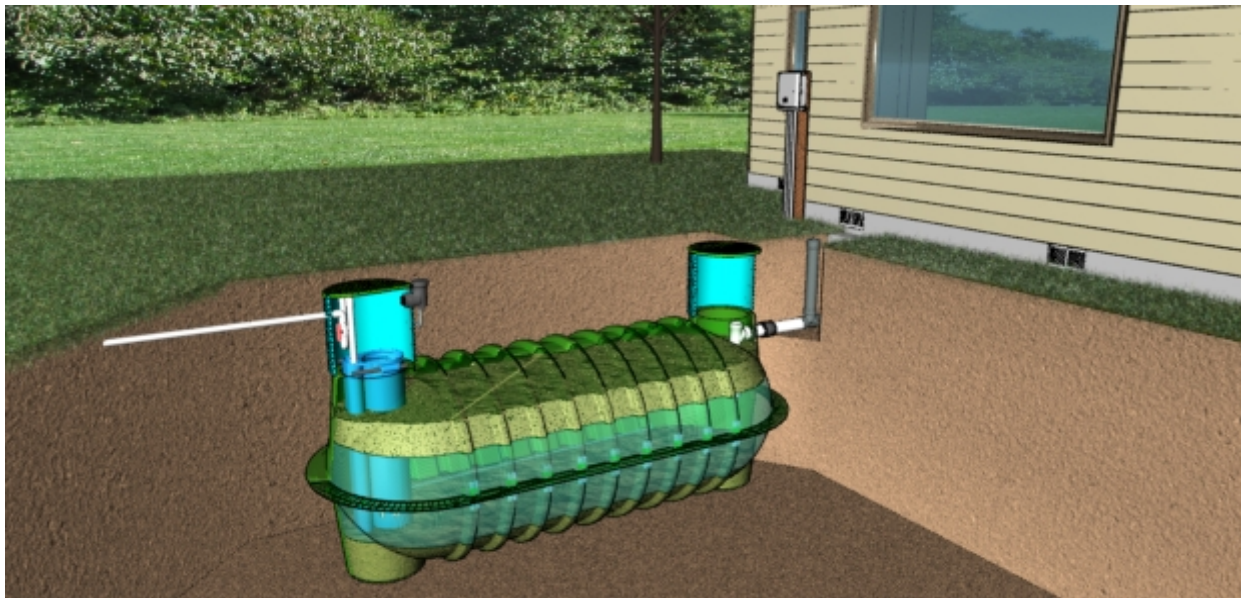
98-530



Direct Testimony  
James A. Merciel, Jr.  
SR-2014-0247

Attachment C

STEP System Product, From Orenco Systems, Inc. Webpage



## Pumping Systems

Effluent Pumping Packages from Orenco Systems are a proven, cost-effective solution for transporting effluent in a septic system. All include the patented Biotube filtering pump vault. More than 175,000 of Orenco's filtering pump vaults are in use all over the world.

### Pumping Systems

In a pumping system, effluent is pumped from the septic tank to the drainfield or to an additional treatment unit. This allows the drainfield or additional units to be uphill from the tank.

The heart of the system is the filtering pump vault. Thirty years ago, Orenco pioneered and packaged the modern filtering pump vault for onsite wastewater collection and treatment. Today, more than 175,000 of Orenco's filtering pump vaults are in service all over the world.

Orenco's pump vaults include a patented Biotube filter that filters out solids so that only liquid from the tank's "clear zone" (between the tank's scum and sludge layers) is pumped. Our filter has several times the capacity of other filters and removes about two-thirds of suspended solids. This reduces clogging of drainfields or other downstream components — and extends their life.

ProPak® and EasyPak™ pump packages work for most residential onsite applications. All components are designed to work together, simplifying installation and long-term maintenance. Constructed of stainless steel, thermoplastics, and fiberglass, they're corrosion-resistant and durable, reducing lifetime system costs. They also include a control panel that delivers effluent to the drainfield or additional treatment unit in small, even doses all day, improving system performance.



© 2014 Orenco Systems ® Inc.

Direct Testimony  
James A. Merciel, Jr.  
SR-2014-0247

Attachment D

Canceled Tariff Sheet No. 14, Central Rivers Wastewater Utility, Inc.

Name of Utility: **Central Rivers Wastewater Utility, Inc.**  
 For Service Areas in the State of Missouri

Missouri Public  
 Service Commission

Rules Governing Rendering of Sewer Service  
**SCHEDULE OF SERVICE CHARGES**

REGD JUL 23 1999

CONNECTION CHARGES:

All single family residential customers utilizing a STEP system that the company will maintain shall pay a one-time \$4,500.00 connection charge when making application for service. This charge is inclusive of all accessories and inspections as hereinafter referenced. All non-residential or multi-family service connection charges shall be at actual cost incurred by the Company in accordance with Rules 10 and 11.

The Company shall have sole discretionary authority to decide who may install equipment and will provide a letter to any person, company, incorporation or other business entity that has the authority to install equipment that will ultimately be operated and maintained by Company. Upon request that person, company, incorporation or other business entity shall produce a letter stating in writing that they are so granted authority to install equipment that will ultimately be operated and maintained by Company and if so unable to produce said letter, that entity or person shall not install any equipment to be ultimately operated and maintained by company.

This charge does include: Cost for connecting the home to the sewer main. This includes any and all costs associated with the following: watertight septic tank, post construction testing of tank and system, pump or pumps, effluent filters, electrical control panel, splice box and wiring from control panel to septic tank, wiring from stubbed out electrical service at customer home to control panel (see Rule No. 6), 4" SCH 40 (or equal) piping from single family residence to septic tank up to 120 linear feet, 1" SCH 40 (or equal) piping from septic tank to main collection systems line up to 800 linear feet, risers and lids, service connection valves and appurtenances, inspections.

This charge does not include: any surveying to determine actual location of easements or property lines for customer, any electrical service beyond connecting to a 30 amp dedicated circuit and another minimum 20 amp circuit that need not be a dedicated circuit (minimum two separate circuits, see Rule 6) single phase electrical connection stubbed by customer to exterior of house, any plumbing closer than 5' of customer's building or residence,

Connection charges for STEG and Gravity collection systems will be based on actual costs as allowed by the Missouri Public Service Commission. The cost for a connection charge to a STEG or Gravity flow collection system will be stated in the Company's Tariff when data is obtained to present a reasonably accurate cost.

**CANCELLED**

*indicates new rate or text			
+indicates change			
DATE OF ISSUE	July 23, 1999	By	MAR 24 2000
	Month Day Year		DATE EFFECTIVE August 30, 1999
			Month Day Year
		Public Service Commission	
		MISSOURI	
ISSUED BY :	Mark Geisinger	President	205 S. Spartan Drive, Richmond, MO 64085
	Name of Officer	Title	Address

Missouri Public  
 Service Commission

98-530

**Schedule JAM-4**

FILED AUG 30 1999

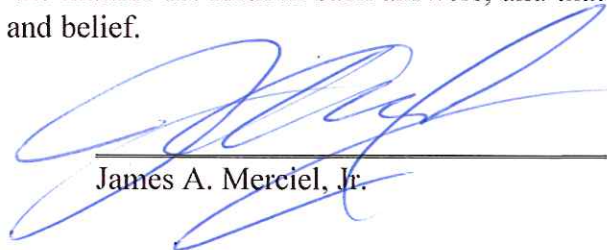
**BEFORE THE PUBLIC SERVICE COMMISSION**  
**OF THE STATE OF MISSOURI**

In the Matter of Central Rivers Wastewater      )  
Utility, Inc.'s Small Company Rate Increase    )  
Request    )      Case No. SR-2014-0247

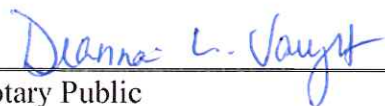
AFFIDAVIT OF JAMES A. MERCIEL, JR.

STATE OF MISSOURI      )  
  ) ss  
COUNTY OF COLE      )

James A. Merciel, Jr., of lawful age, on his oath states: that he has participated in the preparation of the foregoing Direct Testimony, in question and answer form, consisting of 17 pages and 4 Schedules, to be presented in the above case; that the answers in the foregoing Direct Testimony were given by him, that he has knowledge of the matters set forth in such answers; and that such answers are true to the best of his knowledge and belief.

  
\_\_\_\_\_  
James A. Merciel, Jr.

Subscribed and sworn to before me this 13<sup>th</sup> day of November 2013.

  
\_\_\_\_\_  
Notary Public

