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October 3, 2003

The Honorable Dale Hardy Roberts  
Secretary/Chief Regulatory Law Judge  
Missouri Public Service Commission  
P.O. Box 360  
Jefferson City, MO 65102-0360

**FILED<sup>3</sup>**

OCT 03 2003

Missouri Public  
Service Commission

Re: Case No. WR-2003-0500

Dear Judge Roberts:

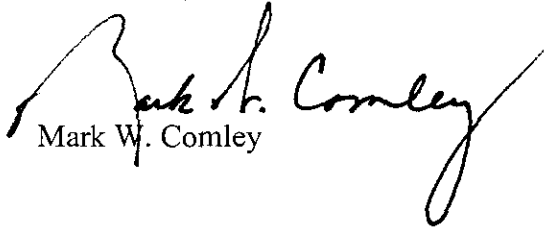
Enclosed for filing in the referenced matter please find the original and five copies of the Direct Testimony of Robert F. Rennick.

Thank you very much for your attention.

Very truly yours,

NEWMAN, COMLEY & RUTH P.C.

By:

  
Mark W. Comley

MWC:ab

Enclosure

cc: General Counsel's Office  
Office of Public Counsel  
Nathan M. Nickolaus  
All parties of record

Exhibit No. :  
Witness : ROBERT F.  
RENNICK  
Type of Exhibit : Direct Testimony  
Party : CITY OF JEFFERSON  
Case No. : WR-2003-0500

**FILED<sup>3</sup>**

OCT 03 2003

Missouri Public  
Service Commission

CITY OF JEFFERSON

Case No. WR-2003-0500

DIRECT TESTIMONY

OF

ROBERT F. RENNICK

Jefferson City, Missouri  
October 3, 2003

BEFORE THE MISSOURI PUBLIC SERVICE COMMISSION  
OF THE STATE OF MISSOURI

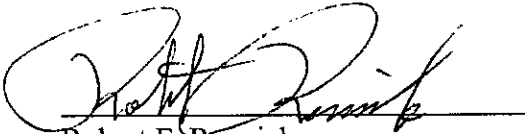
In the Matter of Missouri-American Water Company's       )  
Tariff to Revise Water and Sewer Rate Schedules       )       Case No. WR-2003-0500

AFFIDAVIT OF ROBERT F. RENNICK

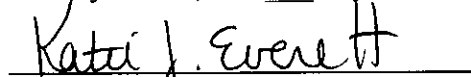
STATE OF MISSOURI       )  
                                      ) ss.  
COUNTY OF COLE )

I, ROBERT F. RENNICK, of lawful age, being duly sworn, do hereby depose and state:

1. My name is ROBERT F. RENNICK. I am the Fire Chief for the Jefferson City Fire Department.
2. Attached hereto and made a part hereof for all purposes is my direct testimony.
3. I hereby swear and affirm that my answers contained in the attached testimony to the questions therein propounded are true and correct to the best of my personal knowledge, information and belief.

  
Robert F. Rennick

Subscribed and sworn to before me, a Notary Public, this 3rd day of October, 2003.

  
Notary Public

My Commission expires:

May 12, 2007

**Katie J. Everett, Notary Public  
Cole County, State of Missouri  
My Commission Expires 5/12/2007**

1  
2  
3 **DIRECT TESTIMONY**  
4

5 Q. WHAT IS YOUR NAME, TITLE AND BUSINESS ADDRESS?

6 A. My name is Robert Frank Rennick, and I am the Fire Chief for the Jefferson City Fire  
7 Department. My business address is City Hall, 320 East McCarty, Jefferson City, Missouri.  
8

9 Q. ON WHOSE BEHALF DO YOU APPEAR IN THIS PROCEEDING?

10 A. City of Jefferson.  
11

12 Q. WHAT ARE YOUR RESPONSIBILITIES AS FIRE CHIEF OF THE CITY OF  
13 JEFFERSON?

14 A. I direct the Fire Department operation with regard to fire suppression, emergency medical  
15 response and prevention activities.  
16

17 Q. HAVE YOU ATTACHED A SCHEDULE WHICH SUMMARIZES YOUR  
18 EDUCATIONAL AND PROFESSIONAL EXPERIENCE?

19 A. Yes, it is attached as RFR Schedule 1.  
20

21 Q. WHAT IS THE PURPOSE OF YOUR TESTIMONY?

22 A. The purpose of this testimony is to discuss my concerns about Missouri-American Water  
23 Company's (Missouri- American) system generally, and especially the company's distribution  
24 and delivery capabilities in the City of Jefferson.  
25  
26

27 Q. PLEASE DESCRIBE FOR THE COMMISSION THE INTEREST YOU HAVE AS THE  
28 FIRE CHIEF FOR THE CITY OF JEFFERSON IN THE WATER FLOW CAPACITY AND  
29 DISTRIBUTION SYSTEM OF MISSOURI-AMERICAN.

30 A. Basically, Missouri-American's water system in Jefferson City provides the Fire Department  
31 the ammunition it needs for fire suppression activities. As the chief fire protection officer

1 for the city of Jefferson, my first concern is the ability of the water company to produce the  
2 adequate flows needed for fire suppression. Part of our city-wide insurance rating from the  
3 ISO is contingent upon the water company's capability of producing water and adequately  
4 distributing and delivering that water to various locations throughout the city.  
5

6 Q. FOR PURPOSES OF THIS CASE, HAVE YOU IDENTIFIED ANY AREAS OF  
7 CONCERN IN CONNECTION WITH THE COMPANY'S OPERATIONS, CAPACITY  
8 AND DISTRIBUTION SYSTEM.  
9

10 A. Yes, I have. These include 1) reliable power supplies for the company's pumping operations,  
11 2) planning for population growth and related building construction in the Jefferson City  
12 area; 3) continued replacement of outdated hydrants and narrow dimension water mains; and  
13 4) adequate shallow water pumping equipment in view of lower Missouri River water levels.  
14

15 Q. PLEASE EXPLAIN YOUR CONCERN ABOUT POWER SUPPLIES TO THE  
16 COMPANY'S PUMPING OPERATIONS.  
17

18 A. As the Commission knows, the pressure in the Company's distribution system is maintained  
19 by high pressure pumps powered by electricity. If the pumps are disconnected from electrical  
20 power, the pressure and volume of water in the system cannot be maintained at adequate  
21 levels not only for general distribution but particularly for fire suppression. The energy  
22 supplier for the pumping operation is AmerenUE. The primary source of power for  
23 Missouri American's pumping operations is a feeder line that serves western portions of  
24 Jefferson City and parallels Industrial Drive until it reaches a point south of Missouri  
25 American's plant. Missouri American's pumping operations are also connected to a  
26 secondary source of power supplied by a feeder line that is extended from AmerenUE's  
27 facilities in the "Mill Bottoms" just west of the Capitol. I have been advised that if the  
28 primary source of power to the pumps fails, a specially designed switch dedicated to

1 Missouri American's operations will cause the secondary power source to activate and  
2 energize the pumps and other related equipment.  
3

4 Q. HAVE THERE BEEN ANY POWER OUTAGES IN THE AREA OF MISSOURI  
5 AMERICAN'S PLANT, AND WAS POWER MAINTAINED AT THE COMPANY'S  
6 PUMPS?

7 A. On the evening of September 7, 2003, Fire Station No. 4, located at 820 Ellis Boulevard had  
8 a loss in water pressure. The fire crew at Station No. 4 contacted the on duty Assistant Fire  
9 Chief, who, in turn, checked with the other fire stations to see if there was a drop in water  
10 pressure. When the Assistant Chief learned that there was little or no water pressure at  
11 several stations, he went to Missouri American's plant on West Main and found no one. He  
12 also called Missouri American's offices in Jefferson City but was connected to an employee  
13 in St. Louis, Missouri, who had no knowledge of the pumping system at Jefferson City and  
14 had no means of investigating the loss in pressure. Eventually, the system was brought to  
15 adequate operating pressure but this required nearly two hours. The on duty reported his  
16 findings to me and contacted me when pressure was restored. The period the Company was  
17 without operational high pressure pumping demonstrates that whatever back up power  
18 system may be in place lacks reliability. It is my recommendation that the Commission  
19 investigate the back up power systems in place for the pumping operations and direct  
20 Missouri American to upgrade the emergency systems where indicated. A generator could  
21 serve as a back up power supply and an emergency source of power in the event the  
22 automatic switch or breaker should fail. The lack of reliable back up power systems for the  
23 Missouri American's pumping operations seriously compromises the pressure needed by the  
24 fire department for its response. That was the case on September 7, 2003.  
25  
26

27 Q. WHAT IS YOUR CONCERN ABOUT POPULATION GROWTH AND BUILDING  
28 CONSTRUCTION IN THE CITY.

1 A. This is an issue related to the storage capacity of the Company's system. I understand that  
2 the company's agreement with Public Water District No. 2 expired as of the close of 2000  
3 and as a consequence, the company lost approximately 3 million gallons of storage. The  
4 Company brought a new storage tower into service in 2002 and it has an approximate  
5 capacity of 1.5 million gallons. When compared to pre-2000 levels, there is a shortfall in  
6 storage capacity. I have been advised that the company intends to remove a clear well  
7 storage tank from its plant in Jefferson City. This will also affect its storage capacity.  
8 Jefferson City will continue to grow and the territory served by the company should see more  
9 demand for water. As the population grows, so will the construction of new residences and  
10 commercial buildings or improvement or additions to existing homes and offices. Given the  
11 changes in the company's storage capacity caused by the expiration of the District contract,  
12 and its anticipated elimination of the clear well storage tank, I suggest that the Commission  
13 investigate whether the company's projected storage capacity will be sufficient for future  
14 demand and fire protection.  
15

16 Q. WITH RESPECT TO FIRE PROTECTION, IS A KEY ELEMENT THE PLACEMENT  
17 AND LOCATION OF HYDRANTS.

18 A. Yes, definitely, and this has been the subject of my testimony in the past. Hydrant placement  
19 is one of the factors that makes up part of the city's overall insurance rating as well as our  
20 ability to deliver flows on a fire.  
21

22 Q. DID YOU REVIEW THE LOCATION OF HYDRANTS FOR PURPOSES OF  
23 EVALUATING THE ADEQUACY OF EXISTING HYDRANTS, AND THE NEED FOR  
24 ADDITIONAL HYDRANTS?

25 A. Yes. That review was done in conjunction with the water company personnel in 1999 and  
26 was the basis of my testimony in Case No. WR-99-326. Based upon my review at that time,  
27 it was my opinion that the system lacked adequate placement of fire hydrants and needed  
28 approximately 40 additional hydrants. The parties were able to reach a stipulation in Case

1 No. WR-99-326 and the stipulation and agreement filed in that case set forth the agreement  
2 of the parties in which United Water Missouri agreed to work with the City to address  
3 hydrant spacing issues and arrive at a mutually agreed upon fire hydrant placement program.  
4 which will install approximately forty (40) new hydrants over the next five (5) years.  
5

6 Q. SINCE THE APPROVAL OF THE STIPULATION AND AGREEMENT IN CASE NO.  
7 WR-99-326, HAVE THE CITY AND THE COMPANY IMPLEMENTED A FIRE  
8 HYDRANT PLACEMENT PROGRAM.

9 A. Yes. The program started as planned and to date about 20 new hydrants have been placed,  
10 leaving about 20 to be placed before the end of the project period.  
11

12 Q. HAS THE COMPANY PERFORMED ITS PART OF THE HYDRANT PLACEMENT  
13 AGREEMENT SATISFACTORILY.  
14

15 A. Yes, my department has been very pleased with the cooperation it has received from  
16 Missouri American in connection with the ongoing hydrant placement program.  
17

18 Q. HAS THE COMPANY REPLACED ANY WATER MAINS IN CONNECTION WITH  
19 THE HYDRANT PLACEMENT PROGRAM.

20 A. No, and several water mains should be replaced.  
21

22 Q. YOU HAVE ATTACHED A MAP AS AN EXHIBIT TO YOUR TESTIMONY. COULD  
23 YOU DESCRIBE IT FOR THE COMMISSION?

24 A. Yes. Exhibit One is a water main distribution map showing fire hydrant locations and  
25 various water main sizes that make up the water system for the Company in Jefferson City.  
26 This is the same map that was attached to my direct testimony in Case No. WR-99-326,  
27 which involved Missouri American's predecessor.  
28

1 Q. WHERE DID YOU ACQUIRE THIS MAP?

2 A. The map was acquired several years ago from United Water Missouri, Inc. pursuant to my  
3 request. It is my understanding that the map was prepared by employees of United Water  
4 Missouri, Inc. It is my understanding that with the exception of the hydrants that have been  
5 placed pursuant to the hydrant placement program I have just mentioned, the map is a fair  
6 representation of the location of Missouri American's water mains and hydrant placement  
7 throughout the city.  
8

9 Q. WOULD REFERENCE TO THE MAP ATTACHED TO YOUR TESTIMONY AS  
10 EXHIBIT 1 ASSIST THE COMMISSION IN BETTER UNDERSTANDING YOUR  
11 TESTIMONY?

12 A. Yes, it would.  
13

14 Q. PLEASE EXPLAIN THE SIGNIFICANCE OF THE BLUE AND YELLOW LINES THAT  
15 ARE HIGHLIGHTED ON EXHIBIT 1?

16 A. These lines represent existing water distribution lines in the company's system. The yellow  
17 lines are three inch lines or smaller, and the blue lines are four inch lines.  
18

19 Q. ARE YOU CONCERNED ABOUT THESE LINES AND THE AREAS THEY SERVE?

20 A. Yes. I voiced this concern in Case No. WR-99-326 and wish to point it out once more to the  
21 Commission. The lines make up a significant part of the network where fire flows are  
22 inadequate in the sense that hydrants cannot be placed on three inch or smaller mains, and  
23 four inch mains do not provide adequate fire flows for major developments.  
24

25 Q. ARE THERE HYDRANTS CONNECTED TO THE FOUR INCH MAINS?

26  
27 A. Yes, hydrants are connected to some four inch mains. By my recent count, there are 45  
28 hydrants on four inch branches and 16 hydrants directly connected to four inch mains. The

1 volume of water than can flow through these hydrants is restricted of course by the diameter  
2 of the main. To optimize the water volume for fire suppression, the water lines should be  
3 upgraded to at least six inch lines, and new hydrants that are proportionately sized should be  
4 connected to the new lines.

5  
6 Q. WHAT IS YOUR RECOMMENDATION TO THE COMMISSION.

7  
8 A. I recommend that the company undertake as soon as possible a water main replacement  
9 program in conjunction with my department to remove the three inch and four inch water  
10 lines and install larger diameter lines (six inches or larger) to which appropriately sized  
11 hydrants can be connected. This will complement the ongoing hydrant placement program.  
12 New hydrants will be installed at locations where none were installed and larger hydrants  
13 will be installed in areas where four inch lines restricted fire flows. In the process the margin  
14 of fire safety in the city will be increased.

15  
16 Q. THE LAST TOPIC OF CONCERN YOU IDENTIFIED AT THE BEGINNING OF YOUR  
17 TESTIMONY WAS ADEQUATE SHALLOW WATER PUMPING. WILL YOU  
18 EXPLAIN THIS CONCERN FOR THE COMMISSION.

19  
20 A. During the closing week of August of this year, the Missouri River fell to record low levels  
21 as a consequence of rainfall shortages upstream as well as a court decision that reduced the  
22 water flow. The level of the river reached low stages of three to five feet. Out of  
23 apprehension that the river may drop so low that it may be beyond the company's low service  
24 pump intakes, I understand the company positioned a barge and emergency pump near the  
25 pump house. I question whether the use of a floating pump like that I just described is a  
26 sufficient and adequate long term solution to what I suspect will be a long term legal issue  
27 involving the river stage. The company should plan on severely low river stages throughout  
28 the year and have storage or pumping capacity that will guarantee at least the level of

1 pressure and volume that the company could supply if the river were running at a normal  
2 stage. Absent this type of protection, the department faces an impairment in its ability to  
3 fight fires.

4 Q. YOU REFERRED TO ISO RATINGS. COULD YOU BRIEFLY TELL THE  
5 COMMISSION WHAT AN ISO RATING IS?

6 A. An ISO rating is the reference to the Insurance Service Office's (or Organization) review of  
7 a municipality for fire protection. That rating is contingent upon basically three items. One  
8 is the Fire Department's ability to deliver fire protection within the community. A second  
9 is the communications network that supplements the receipt of alarms and distribution of  
10 those alarms to the Fire Department. The third component is the water system's ability to  
11 supply water to the Fire Department.

12  
13 Q. THE ISO RATING THAT IS GIVEN AFFECTS RESIDENTS IN WHAT WAY?

14 A. The ISO rating affects their premiums that an insurance company charges for home owners  
15 insurance. The insurance cost will be higher or lower depending on the ISO rating.

16  
17 Q. DOES THIS CONCLUDE YOUR TESTIMONY AT THIS TIME?

18 A. Yes it does.

RFR Schedule 1  
EDUCATIONAL AND PROFESSIONAL EXPERIENCE  
FOR  
ROBERT F. RENNICK

Education:

Earned an Associate of Arts Degree from Columbia College

Attended numerous fire training courses offered by the University of Missouri

Attended numerous courses offered by the National Fire Academy

Attended numerous continuing education courses

Teaching:

Associate Faculty Instructor for the Missouri Fire and Rescue Training Institute

Fire Service Instructor II Certification by Missouri State Fire Marshal Office

Professional:

Washington, Missouri, Volunteer Fire Company, 1964 to 1965

Boone Country Fire Protection District, 1965 to 1979

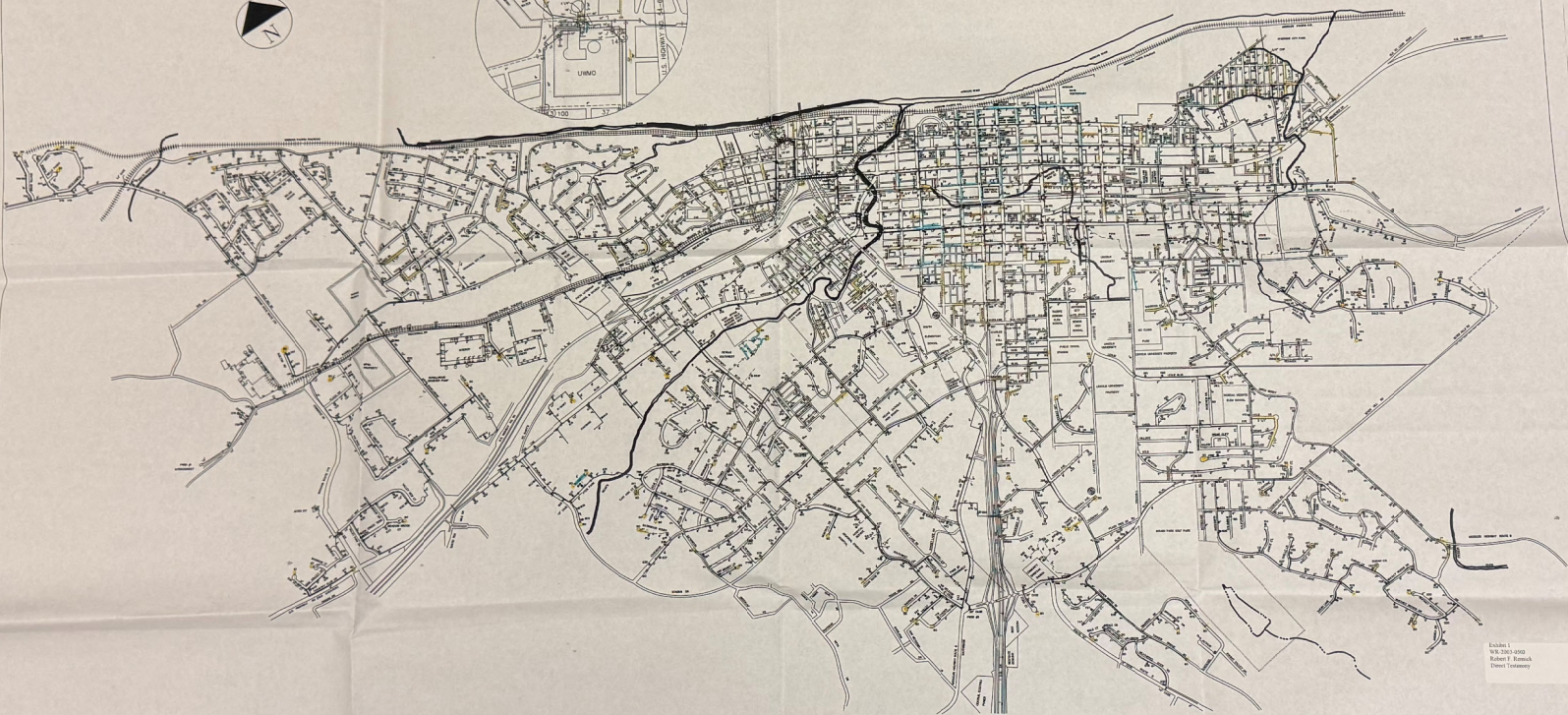
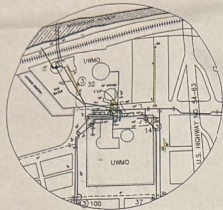
Positions: Firefighter, Property Officer, Fire Lieutenant, Fire Captain, Battalion  
Chief

Columbia Fire Department, October 1970 to November 1979

Positions: Firefighter Drive, Fire Engineer, Fire Inspector, Fire Lieutenant,  
Training Officer

Jefferson City Fire Department, November 1979 to present

Position: Fire Chief



1"=800'

3" & SMALLER  
4"  
6"  
8"  
10" & 12"  
18" & LARGER

Sheet 1  
WB 2180-2182  
Robert J. Bowers  
David T. Tabor

UNITED WATER MISSOURI  
906 W. HIGH  
JEFFERSON CITY, MO 65102

REVISION DATE: 1/99  
REVISION BY: KEVIN ADNEY  
SCALE: 1"=800'



United Water