

*Exhibit No.:*  
*Issue:* Depreciation  
*Witness:* Guy C. Gilbert, PE, RG  
*Sponsoring Party:* MoPSC Staff  
*Type of Exhibit:* Surrebuttal Testimony  
*Case No.:* WR-2010-0131  
*Date Testimony Prepared:* April 15, 2010

**MISSOURI PUBLIC SERVICE COMMISSION**

**UTILITY SERVICES DIVISION**

**REBUTTAL TESTIMONY**

**OF**

**GUY C. GILBERT, PE, RG**

**MISSOURI-AMERICAN WATER COMPANY**

**CASE NO. WR-2010-0131**

*Jefferson City, Missouri*  
*April 2010*

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OF  
GUY C. GILBERT, PE, RG  
MISSOURI-AMERICAN WATER COMPANY  
CASE NO. WR-2010-0131**

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1 **REBUTTAL TESTIMONY**

2 **OF**

3 **GUY C. GILBERT, PE, RG**

4 **MISSOURI-AMERICAN WATER COMPANY**

5 **CASE NO. WR-2010-0131**

6 Q. Would you please state your name and business address?

7 A. Guy C. Gilbert, 200 Madison Street, Jefferson City, Missouri, 65101.

8 Q. By whom are you employed and in what capacity?

9 A. I am employed by the Missouri Public Service Commission (PSC or  
10 Commission) as a Utility Regulatory Engineer II in the Engineering and Management  
11 Services Department.

12 Q. Would you please describe your work experience and educational  
13 background?

14 A. A copy of my work and educational experience was provided in Appendix 1,  
15 pages 10 to 13 of the Staff's Report in this case.

16 Q. Have you previously testified before the Commission?

17 A. Yes. The cases in which I have filed testimony before the Commission are  
18 listed in Appendix 1, pages 8 and 9 of the Staff's Report in this case.

19 **EXECUTIVE SUMMARY**

20 Q. Please state the purpose of your testimony.

21 A. The purpose of my rebuttal testimony is to compare and contrast my  
22 previously filed report regarding depreciation with that of Missouri-American Water  
23 Company (MAWC or Company). In addition I will offer the Staff's position in response to

1 Company witness Mr. John J. Spanos' testimony filed in the Company's direct case  
2 regarding policy issues that are in disagreement with the policy directives provided  
3 previously by the Commission. The Commission gave direction in Case No. ER-2004-0570  
4 (The Empire District Electric Company) regarding the parameters that should be part of the  
5 computation of depreciation for utilities. The parameters delineated by the Commission  
6 included the value of an asset, average service life and net salvage. The Commission further  
7 stated in its order why lifespan and terminal net salvage estimates were not appropriate  
8 variables to be included in the depreciation computation.

9 Mr. Spanos disagrees with the Commission's previous order and seeks to introduce  
10 additional parameters and alternative methods that result in the Company appearing to  
11 require additional depreciation accruals. Mr. Spanos' position disagrees with the  
12 Commission's previous order and seeks to introduce a lifespan component to the  
13 computation of depreciation rates. Use of lifespan minimizes the time ratepayers have to  
14 return the Company's investment and net salvage. Mr. Spanos includes an adjustment to the  
15 computation of the depreciation accrual rate (depreciation rate) for any perceived over or  
16 under accrual of the depreciation reserve based upon the company's methodology.  
17 Mr. Spanos also includes amortization of the General Plant accounts in direct contradiction to  
18 the Commission's rules. The rules address the depreciation of plant accounts, not the  
19 amortization of plant accounts. Another contradiction arises from the fact that the Company  
20 has adopted a numerical system of accounts that is different from that stated in the  
21 Commission's rules. This has caused some confusion regarding what the Company's various  
22 depreciation accounts actually represent.

23 Q. What is the difference between the Company and Staff's positions?

1           A.     The difference between the Staff and the Company's depreciation annual  
2 accrual in the present case is approximately \$2,337,324, plus additional amounts for  
3 transportation equipment that the Company has not yet quantified. The Company believes it  
4 needs \$2,337,324 more depreciation expense included in rates than the \$1,757,816 increase  
5 Staff has determined. This is a 128% increase over Staff's recommended increase. This  
6 does not include additional amounts for transportation equipment that the Company has not  
7 yet quantified and terminal net salvage amounts. Please observe Schedule GCG-R1 for a  
8 detailed comparison by account.

9           Q.     Are the Staff and Company in agreement with the basic parameters for the  
10 computation of depreciation rates, such as average service life, net salvage and Iowa curve?

11          A.     Yes. The only difference is the Company's failure to comply with the  
12 implementation of these basic parameters of average service life, net salvage and Iowa curve.  
13 This similarity of empirical data is shown in Schedule GCG-R2.

14           **LIFESPAN**

15          Q.     What retirement date(s) is MAWC proposing for all its major facilities?

16          A.     The Company proposes that all major facilities will be in service at least  
17 sixty-five (65) years before retirement.

18          Q.     How did the Company make this determination of final retirement date?

19          A.     The Company does not provide any discussion in its filed testimony regarding  
20 how these decisions were made.

21          Q.     Is it reasonable to expect that MAWC will replace the vast majority, if not all,  
22 of its major structures within the next sixty-five (65) years?

1           A.     No. That would be unprecedented for a water utility company of MAWC's  
2 size. For example MAWC acquired the St. Joseph water treatment facility that had provided  
3 service for approximately 100 years. This treatment facility was later sold prior to green or  
4 brown fielding of the site. The Company treats this major retirement as an outlier and  
5 something that is not treated in the computation of depreciation rates. The Company also has  
6 water treatment facilities in St. Louis and Springfield that are near a similar vintage. Often a  
7 determination involving the replacement of a water works may consider real estate value and  
8 system growth or expansion, resulting in economies of scale that an entirely new water  
9 treatment facility may take advantage of, as was the case with the St. Joseph water works.

10          Q.     Are there any additional requirements to using the life span approach for  
11 retirement of life span accounts, of which the Company has failed to include in this  
12 case when using life span for retirement of accounts 312, Collecting and Impounding  
13 Reservoirs; account 313 Lake, River and Other Intakes; account 321 Structures and  
14 Improvements-Pumping Plant; and account 331 Structures and Improvements-Water  
15 Treatment Plant?

16          A.     Yes. Normally, when the life span method of depreciation is used for the  
17 computation of depreciation, additional amounts for terminal net salvage or final retirement  
18 and removal cost are added to the depreciable amounts or cost. The Company has failed to  
19 include these values or additional costs in this case. It is expected that recovery for these  
20 final net salvage amounts would be sought by the Company under the lifespan method of  
21 depreciation.

1 **ADDITIONAL ADJUSTMENTS TO THE COMPUTATION OF DEPRECIATION**  
2 **RATES**

3 Q. Does the Company propose additional methods and techniques for the  
4 computation of the depreciation rates based upon estimated amounts resulting from estimated  
5 parameters?

6 A. Yes, the Company uses the estimated lifespan and the resultant estimated  
7 amortization periods to determine an estimated rate for depreciation of certain General Plant  
8 accounts, plus an adjustment for the remaining life technique.

9 Q. What is the Company's capitalization limit and why does it exist?

10 A. The Company's capitalization limit for non-routine general plant accounts is  
11 \$1,500 and was last revised January 1, 2003. The capitalization limit sets a threshold,  
12 determined by the Company, at which continuing property records will be maintained to a  
13 degree of detail that enables the individual continuing property items to be physically  
14 identified by location.

15 Q. How is this accounting policy implemented by the Company for PCs, fax  
16 machines and similar equipment that does not meet the capitalization threshold?

17 A. The Company has chosen to track PCs as stated in the previous answer, even  
18 though they are under the capitalization limit, and incorporate their values in depreciable  
19 amounts. However, the Company does not maintain the information at a detail suitable for  
20 the determination of depreciation rates.

21 Q. How does the Company derive its estimated adjustment for the depreciation  
22 reserve?

23 A. The actuarial analysis uses the same data sets, algorithms and software as  
24 Staff used. The analysis yields results that are interpreted by the depreciation analyst,

1 resulting in an estimated average service life for that particular group or account of assets.  
2 This interpretation is aided by engineering judgment and selection and interpretation of a  
3 survivor curve. The Staff's analysis regarding depreciable life ends here. The Company  
4 however, takes this estimated average service life and estimates a remaining life that is used  
5 to adjust the period over which the future depreciation amount and accruals will need to be  
6 made before everything in the account is retired.

7 Q. Does the Company make this additional adjustment for all depreciated plant  
8 accounts?

9 A. Yes. For the non-life span accounts and all other accounts, this period is  
10 called the remaining life, even when it is recommended that the account be simply amortized  
11 over a pre-specified period.

12 Q. What is the result of these additional estimated amounts and periods?

13 A. It constrains and limits the amount of time that the ratepayers have available  
14 to return the investment made by the Company for service to the ratepayer, as if at some  
15 certain date in the future the Company will be exiting the business of providing water  
16 service.

17 Q. Does the Staff believe there is an estimated inadequacy of the reserve for  
18 depreciation?

19 A. No. Staff believes the reserve to currently be over-accrued by more than  
20 \$64 million.

21 Q. Is the theoretical reserve over-accrual of \$64 million addressed in this case?

22 A. Yes. Staff recommends that no action be taken regarding the reserve  
23 over-accrual of \$64 million, but that Staff continue to monitor it. Meanwhile, Staff's



Rebuttal Testimony of  
Guy C. Gilbert, PE, RG

1 recommended depreciation rates are intended to be corrective to the depreciation reserve  
2 over-accrual on a going-forward basis.

3 Q. Does this conclude your prepared rebuttal testimony?

4 A. Yes. It does.

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of Missouri-American Water )  
Company's Request for Authority to Implement a )  
General Rate Increase for Water and Sewer )  
Services Provided in Missouri Service Areas )

Case No. WR-2010-0131

AFFIDAVIT OF GUY C. GILBERT MS, PE, RG


STATE OF MISSOURI     )  
  )  
COUNTY OF COLE       )     ss.

Guy C. Gilbert, of lawful age, on his oath states: that he has participated in the preparation of the foregoing Rebuttal Testimony in question and answer form, consisting of 7 pages to be presented in the above case; that the answers in the foregoing Rebuttal Testimony were given by him; that he has knowledge of the matters set forth in such answers; and that such matters are true and correct to the best of his knowledge and belief.

  
\_\_\_\_\_  
Guy C. Gilbert MS, PE, RG

Subscribed and sworn to before me this 15<sup>th</sup> day of April, 2010.

D. SUZIE MANKIN  
Notary Public - Notary Seal  
State of Missouri  
Commissioned for Cole County  
My Commission Expires: December 08, 2012  
Commission Number: 08412071

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

**Schedule GCG-R1**  
**Missouri American Water Company**  
**Case No. WR-2010-0131**  
**Annual Accrual Comparison: Current, Staff, Company**

Account Number	<u>WATER</u> Account Description	Recommended			Company less Staff Annual Difference	Change in Method
		Current Annual Accrual	Staff Annual Accrual	Company Annual Accrual		
<b><u>SOURCE OF SUPPLY PLANT</u></b>						
311.00	Structures and Improvement:	\$349,826	\$337,494	\$349,826	\$12,332	
312.00	Collecting and Impounding Reservoir	\$1,388	\$1,388	\$1,411	\$22	Lifespan
313.00	Lake, River, and Other Intake:	\$17,796	\$17,788	\$53,086	\$35,298	Lifespan
314.00	Wells and Springs	\$113,419	\$123,483	\$151,452	\$27,969	
315.00	Infiltration Galleries and Tunnel:	\$30	\$30	\$32	\$2	
316.00	Supply Mains	\$332,223	\$370,784	\$357,139	(\$13,645)	
317.00	Miscellaneous Source of Supply-Othe	\$69	\$69	\$81	\$12	
<b><u>PUMPING PLANT</u></b>						
321.00	Structures and Improvement:	\$332,389	\$345,839	\$1,239,255	\$893,417	Lifespan
322.00	Boiler Plant Equipmen	\$7	\$8	\$103	\$95	
323.00	Power Generation Equipmen	\$70,406	\$70,406	\$70,758	\$352	
324.00	Pumping Equipment	\$1,379,119	\$1,480,319	\$1,294,337	(\$185,982)	
<b><u>WATER TREATMENT PLANT</u></b>						
331.00	Structures and Improvement:	\$1,499,114	\$1,551,997	\$3,071,805	\$1,519,808	Lifespan
332.00	Water Treatment Equipmen:	\$3,042,836	\$3,162,020	\$2,999,054	(\$162,966)	
333.00	Miscellaneous Water Treatment-Othe	\$49,339	\$49,389	\$44,746	(\$4,643)	
<b><u>TRANSMISSION &amp; DISTRIBUTION PLANT</u></b>						
341.00	Structures and Improvement:	\$278,852	\$250,653	\$223,499	(\$27,154)	
341.10	Structures and Improvements-Special Crossing	\$0	\$0	\$0	\$0	
342.00	Distribution Reservoirs & Standpipe:	\$608,420	\$608,420	\$681,430	\$73,010	
343.00	Mains-Transmission & Distributor	\$11,653,326	\$10,790,117	\$10,487,993	(\$302,123)	
344.00	Mains-Fire	\$8,513	\$8,867	\$9,080	\$213	
345.00	Services	\$847,120	\$803,960	\$860,872	\$56,912	
346.00	Meters	\$1,915,025	\$1,891,383	\$1,678,602	(\$212,781)	
347.00	Meter Installations:	\$0	\$0	\$0	\$0	
348.00	Fire Hydrants	\$1,043,580	\$1,003,442	\$940,309	(\$63,133)	
349.00	Miscellaneous Transmission & Distribution-Other	\$628	\$628	\$0	(\$628)	
<b><u>GENERAL PLANT</u></b>						
390.00	Structures and Improvements-Shop and Garage	\$21,090	\$21,090	\$39,984	\$18,893	
390.10	Structures and Improvements-Office Buildings	\$179,929	\$179,929	\$173,932	(\$5,998)	
390.30	Structures and Improvements-Miscellaneous	\$100,637	\$100,637	\$92,670	(\$7,967)	
390.90	Structures and Improvements-Leasehol	\$2,707	\$2,707	\$7,418	\$4,711	
391.00	Office Furniture	\$73,874	\$92,343	\$105,640	\$13,297	Amortize
391.20	Computer Hardware	\$0	\$1,348,008	\$1,854,185	\$506,177	Amortize
391.25	Computer Software	\$1,332,803	\$1,865,365	\$2,333,571	\$468,207	Amortize
391.30	Other Office Equipment	\$33,173	\$33,173	\$47,570	\$14,397	Amortize
392.10	Transportation Equipment-Light Truck:	\$0	\$87,876	\$33,120	(\$54,757)	
392.10	<i>New Account Transportation Equipment-Light Trucks as of 1-1-09</i>			N/A	N/A	N/A
392.20	Transportation Equipment-Heavy Trucks	\$355,732	\$426,878	\$0	(\$426,878)	
392.20	<i>New Account Transportation Equipment-Heavy Trucks as of 1-1-09</i>			N/A	N/A	N/A
392.30	Transportation Equipment-Autos	\$0	\$195,141	\$82,176	(\$112,965)	
392.30	<i>New Account Transportation Equipment-Autos as of 1-1-09</i>			N/A	N/A	N/A
392.40	Transportation Equipment-Other	\$0	\$22,635	\$2,277	(\$20,358)	
392.40	<i>New Account Transportation Equipment-Other as of 1-1-09</i>			N/A	N/A	N/A
393.00	Stores Equipment	\$11,670	\$16,338	\$15,194	(\$1,144)	Amortize
394.00	Tools, Shop, and Garage Equipmer	\$394,823	\$394,823	\$457,995	\$63,172	Amortize
395.00	Laboratory Equipmen	\$84,882	\$141,469	\$320,216	\$178,747	Amortize
396.00	Power Operated Equipmen	\$103,413	\$117,202	\$22,599	(\$94,603)	
397.10	Communications Equipment-Non-Telephon	\$137,681	\$183,574	\$184,768	\$1,193	Amortize
397.20	Communications Equipment-Telephon	\$9,961	\$14,941	\$5,528	(\$9,413)	Amortize
398.00	Miscellaneous Equipmen	\$93,008	\$124,010	\$156,253	\$32,243	Amortize
399.00	Other Tangible Equipmen	\$45,548	\$45,548	\$169,529	\$123,982	Amortize
	<b>Total</b>	\$26,524,356	\$28,282,172	\$30,619,496	\$2,337,324	

**Missouri American Water Company  
Case No. WR-2010-0131  
Recommended Annual Depreciation Rates & Parameters Comparison**

Account Number	WATER Account Description	Average Service	Average Service	Recommended				Staff	Company	Change in Method
		Life (Years) Staff	Life (Years) Company	Iowa Curve Staff	Iowa Curve Company	Net Salvage Staff	Net Salvage Company	Whole Life Depreciation Rate (%)	Whole Life Depreciation Rate (%)	
<b><u>SOURCE OF SUPPLY PLANT</u></b>										
311.00	Structures and Improvements	55	55	R4	R4	-30.00%	-30.00%	2.36%	2.45%	
312.00	Collecting and Impounding Reservoirs	80	80	R2.5	R2.5	0.00%	0.00%	1.25%	1.27%	Lifespan
313.00	Lake, River, and Other Intake	65	65	R1.5	R1.5	-15.00%	-15.00%	1.77%	5.28%	Lifespan
314.00	Wells and Springs	55	55	R2.5	R2.5	0.00%	0.00%	1.82%	2.23%	
315.00	Infiltration Galleries and Tunnels	60	60	R2.5	R2.5	0.00%	0.00%	1.67%	1.77%	
316.00	Supply Mains	70	70	R3	R3	-25.00%	-25.00%	1.79%	1.72%	
317.00	Miscellaneous Source of Supply-Other	25	25	SQ	SQ	0.00%	0.00%	4.00%	4.68%	
<b><u>PUMPING PLANT</u></b>										
321.00	Structures and Improvements	75	75	R2.5	R2.5	-35.00%	-35.00%	1.80%	6.45%	Lifespan
322.00	Boiler Plant Equipment	45	45	R4	R4	0.00%	0.00%	2.22%	29.62%	
323.00	Power Generation Equipment	50	50	R3	R3	0.00%	0.00%	2.00%	2.01%	
324.00	Pumping Equipment	42	42	R1.5	R1.5	-10.00%	-10.00%	2.62%	2.29%	
<b><u>WATER TREATMENT PLANT</u></b>										
331.00	Structures and Improvements	80	80	R3	R3	-35.00%	-35.00%	1.69%	3.34%	Lifespan
332.00	Water Treatment Equipment	45	45	R2.5	R2.5	-30.00%	-30.00%	2.89%	2.74%	
333.00	Miscellaneous Water Treatment-Other	30	30	SQ	SQ	0.00%	0.00%	3.33%	3.02%	
<b><u>TRANSMISSION &amp; DISTRIBUTION PLANT</u></b>										
341.00	Structures and Improvements	50	50	R2.5	R2.5	-20.00%	-20.00%	2.40%	2.14%	
341.10	Structures and Improvements-Special Crossing	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	
342.00	Distribution Reservoirs & Standpipes	60	60	R3	R3	-35.00%	-35.00%	2.25%	2.52%	
343.00	Mains-Transmission & Distributor	90	90	R2.5	R2.5	-25.00%	-25.00%	1.39%	1.35%	
344.00	Mains-Fire	80	80	S1	S1	-25.00%	-25.00%	1.56%	1.60%	
345.00	Services	65	65	S0.5	S0.5	-90.00%	-90.00%	2.92%	3.13%	
346.00	Meters	40	40	R1	R1	4.00%	4.00%	2.40%	2.13%	
347.00	Meter Installations	N/A	N/A	N/A	N/A	N/A	N/A	N/A	2.13%	
348.00	Fire Hydrants	65	65	R1.5	R1.5	-20.00%	-20.00%	1.85%	1.73%	
349.00	Miscellaneous Transmission & Distribution-Other	50	50	R3	R3	0.00%	0.00%	2.00%	none	
<b><u>GENERAL PLANT</u></b>										
390.00	Structures and Improvements-Shop and Garage	50	50	R3	R3	-20.00%	-20.00%	2.40%	4.55%	
390.10	Structures and Improvements-Office Buildings	50	50	R1	R1	-20.00%	-20.00%	2.40%	2.32%	
390.30	Structures and Improvements-Miscellaneous	50	50	R2.5	R2.5	-20.00%	-20.00%	2.40%	2.21%	
390.90	Structures and Improvements-Leasehold	20	20	R4	R4	0.00%	0.00%	5.00%	13.70%	
391.00	Office Furniture	20	20	SQ	SQ	0.00%	0.00%	5.00%	5.72%	Amortize
391.20	Computer Hardware	5	5	SQ	SQ	0.00%	0.00%	20.00%	27.51%	Amortize
391.25	Computer Software	5	5	SQ	SQ	0.00%	0.00%	20.00%	25.02%	Amortize
391.30	Other Office Equipment	15	15	SQ	SQ	0.00%	0.00%	6.67%	9.56%	Amortize
392.10	Transportation Equipment-Light Trucks	8	8	L1.5	L1.5	10.00%	10.00%	11.25%	4.24%	
392.10	New Account Transportation Equipment-Light Trucks as of 1-1-09								14.26%	
392.20	Transportation Equipment-Heavy Trucks	9	9	L2	L2	10.00%	10.00%	10.00%	0.00%	
392.20	New Account Transportation Equipment-Heavy Trucks as of 1-1-09								12.27%	
392.30	Transportation Equipment-Autos	5	5	L2	L2	10.00%	10.00%	18.00%	7.58%	
392.30	New Account Transportation Equipment-Autos as of 1-1-09								21.03%	
392.40	Transportation Equipment-Other	15	15	S2.5	S2.5	15.00%	15.00%	5.67%	0.57%	
392.40	New Account Transportation Equipment-Other as of 1-1-09								6.26%	
393.00	Stores Equipment	25	25	SQ	SQ	0.00%	0.00%	4.00%	3.72%	Amortize
394.00	Tools, Shop, and Garage Equipment	20	20	SQ	SQ	0.00%	0.00%	5.00%	5.80%	Amortize
395.00	Laboratory Equipment	15	15	SQ	SQ	0.00%	0.00%	6.67%	15.09%	Amortize
396.00	Power Operated Equipment	11	11	L1.5	L1.5	15.00%	15.00%	7.73%	1.49%	
397.10	Communications Equipment-Non-Telephone	15	15	SQ	SQ	0.00%	0.00%	6.67%	6.71%	Amortize
397.20	Communications Equipment-Telephone	10	10	SQ	SQ	0.00%	0.00%	10.00%	3.70%	Amortize
398.00	Miscellaneous Equipment	15	15	SQ	SQ	0.00%	0.00%	6.67%	8.40%	Amortize
399.00	Other Tangible Equipment	20	20	SQ	SQ	0.00%	0.00%	5.00%	18.61%	Amortize