Exhibit No.:
Issue: Depreciation
Witness: John J. Spanos
Type of Exhibit: Rebuttal
Sponsoring Party: Missouri-American Water Company
Case No.: WR-2011-0337
Date: January 19, 2012

MISSOURI PUBLIC SERVICE COMMISSION
CASE NO. WR-2011-0337

REBUTTAL TESTIMONY

OF

JOHN J. SPANOS

ON BEHALF OF

MISSOURI-AMERICAN WATER COMPANY

JEFFERSON CITY, MISSOURI

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

IN THE MATTER OF MISSOURI-AMERICAN WATER COMPANY FOR AUTHORITY TO FILE TARIFFS REFLECTING INCREASED RATES FOR WATER AND SEWER SERVICE	)))))	**CASE NO. WR-2011-0337** **CASE NO. SR-2011-0338**

AFFIDAVIT OF JOHN J. SPANOS

John J. Spanos, being first duly sworn, deposes and says that he is the witness who sponsors the accompanying testimony entitled "Rebuttal Testimony of John J. Spanos"; that said testimony and schedules were prepared by him and/or under his direction and supervision; that if inquires were made as to the facts in said testimony and schedules, he would respond as therein set forth; and that the aforesaid testimony and schedules are true and correct to the best of his knowledge.

John J. Spanos

Commonwealth of Pennsylvania
County of Cumberland
SUBSCRIBED and sworn to
Before me this 18th **day of** January **2012.**

Notary Public

My commission expires: February 20, 2015

COMMONWEALTH OF PENNSYLVANIA
Notarial Seal
Cheryl Ann Rutter, Notary Public
East Pennsboro Twp., Cumberland County
My Commission Expires Feb. 20, 2015
MEMBER, PENNSYLVANIA ASSOCIATION OF NOTARIES

INTRODUCTION

Q. Please state your name and address.

A. My name is John J. Spanos. My business address is 207 Senate Avenue, Camp Hill, Pennsylvania.

Q. Have you previously submitted testimony in this proceeding?

A. No, I have not. However, the basis of my rebuttal testimony relates to the currently approved depreciation rates set forth in Case No. 2010-0131. The depreciation rates settled in Case No. 2010-0131 were established utilizing the parameters of my depreciation study submitted in that case.

Q. With what firm are you associated?

A. I am associated with the firm of Gannett Fleming, Inc.

Q. How long have you been associated with Gannett Fleming?

A. I have been associated with the firm since college graduation in June 1986.

Q. What is your position in the firm?

A. I am Vice President of the Valuation and Rate Division.

Q. What is your educational background?

A. I have Bachelor of Science degrees in Industrial Management and Mathematics from Carnegie-Mellon University and a Master of Business Administration from York College of Pennsylvania.

Q. Are you a member of any professional societies?

A. Yes. I am a member of the Society of Depreciation Professionals and the American Gas Association/Edison Electric Institute Industry Accounting Committee.

Q. Have you taken the certification examination for depreciation

professionals?

A. Yes. I passed the certification examination of the Society of Depreciation Professionals in September 1997 and was recertified in August 2003 and February 2008.

Q. Will you outline your experience in the field of depreciation?

A. In June 1986, I was employed by Gannett Fleming Valuation and Rate Consultants, Inc. as a Depreciation Analyst. During the period from June 1986 to December 1995, I took part in the preparation of numerous depreciation and original cost studies for utility companies in various industries.

Depreciation studies of telephone companies were performed for United Telephone of Pennsylvania, United Telephone of New Jersey and Anchorage Telephone Utility.

My work in the railroad industry included depreciation studies for Union Pacific Railroad, Burlington Northern Railroad and Wisconsin Central Transportation Corporation.

Assignments in the electric industry included depreciation studies for Chugach Electric Association, The Cincinnati Gas and Electric Company, The Union Light, Heat & Power Company, Northwest Territories Power Corporation and the City of Calgary - Electric System.

Pipeline industry assignments included studies for TransCanada Pipelines Limited, Trans Mountain Pipe Line Company Ltd., Interprovincial Pipe Line Inc., Nova Gas Transmission Limited and Lakehead Pipeline Company.

My work for the gas industry included depreciation studies for Columbia Gas of Pennsylvania, Columbia Gas of Maryland, The Peoples Natural Gas

Company, T. W. Phillips Gas & Oil Company, The Cincinnati Gas and Electric Company, The Union Light, Heat & Power Company, Lawrenceburg Gas Company and Penn Fuel Gas, Inc.

Assignments in the water industry included depreciation studies for Indiana-American Water Company, Consumers Pennsylvania Water Company and The York Water Company; and depreciation and original cost studies for Philadelphia Suburban Water Company and Pennsylvania-American Water Company.

My participation in each of the above studies included assembly and analysis of historical and simulated data, field reviews, the development of preliminary estimates of service life and net salvage, calculations of annual depreciation, and the preparation of reports for submission to state or provincial public utility commissions or federal regulatory agencies. I performed these studies under the general direction of William M. Stout, P.E., the President of Gannett Fleming Valuation and Rate Consultants, Inc.

In January 1996, I was assigned to the position of Supervisor of Depreciation Studies. In July 1999, I was promoted to the position of Manager, Depreciation and Valuation Studies. In December 2000, I was promoted to my current position as Vice President of Gannett Fleming Valuation and Rate Consultants, Inc., now the Valuation and Rate Division of Gannett Fleming, Inc. In this position, I am responsible for all depreciation, valuation and original cost studies, including the preparation of final exhibits and responses to data requests for submission to the appropriate regulatory body.

Since January 1996, I have conducted depreciation studies similar to those previously listed including assignments for Pennsylvania-American Water Company; Aqua Pennsylvania; Kentucky-American Water Company; Virginia-American Water Company; Indiana-American Water Company; Hampton Water Works Company; Omaha Public Power District; Enbridge Pipe Line Company; Inc.; Columbia Gas of Virginia, Inc.; Virginia Natural Gas Company National Fuel Gas Distribution Corporation - New York and Pennsylvania Divisions; The City of Bethlehem - Bureau of Water; The City of Coatesville Authority; The City of Lancaster - Bureau of Water; Peoples Energy Corporation; The York Water Company; Public Service Company of Colorado; Enbridge Pipelines; Enbridge Gas Distribution, Inc.; Reliant Energy-HLP; Massachusetts-American Water Company; St. Louis County Water Company; Missouri-American Water Company; Chugach Electric Association; Alliant Energy; Oklahoma Gas & Electric Company; Nevada Power Company; Dominion Virginia Power; NUI-Virginia Gas Companies; Pacific Gas & Electric Company; PSI Energy; NUI - Elizabethtown Gas Company; Cinergy Corporation – CG&E; Cinergy Corporation – ULH&P; Columbia Gas of Kentucky; South Carolina Electric & Gas Company; Idaho Power Company; El Paso Electric Company; Central Hudson Gas & Electric; Centennial Pipeline Company; CenterPoint Energy-Arkansas; CenterPoint Energy – Oklahoma; CenterPoint Energy – Entex; CenterPoint Energy - Louisiana; NSTAR – Boston Edison Company; Westar Energy, Inc.; United Water Pennsylvania; PPL Electric Utilities; PPL Gas Utilities; Wisconsin Power & Light Company; TransAlaska Pipeline; Avista Corporation; Northwest Natural Gas; Allegheny Energy Supply, Inc.; Public Service Company of North

Carolina; South Jersey Gas Company; Duquesne Light Company; MidAmerican Energy Company; Laclede Gas; Duke Energy Company; E.ON U.S. Services Inc.; Elkton Gas Services; Anchorage Water and Wastewater Utility; Kansas City Power and Light; Duke Energy North Carolina; Duke Energy South Carolina; Duke Energy Ohio Gas; Duke Energy Kentucky; Duke Energy Indiana; Northern Indiana Public Service Company; Tennessee-American Water Company; Columbia Gas of Maryland; Bonneville Power Administration; NSTAR Electric and Gas Company; EPCOR Distribution, Inc.; B. C. Gas Utility, Ltd; Entergy Arkansas; Entergy Texas; Entergy Mississippi; Entergy Louisiana, Entergy Gulf States Louisiana, the Borough of Hanover, Madison Gas and Electric, Atlantic City Electric and Greater Missouri Operations. My additional duties include determining final life and salvage estimates, conducting field reviews, presenting recommended depreciation rates to management for its consideration and supporting such rates before regulatory bodies.

Q. What is the purpose of your rebuttal testimony?

A. The purpose of my rebuttal testimony is to respond to the direct testimony of the Missouri Public Service Commission Staff (Staff).

Q. What is the subject of your rebuttal testimony?

A. The subject of my rebuttal testimony is the proper recovery of the investment in the Platte County Water Treatment Facility during its useful life.

Q. Can you explain the current issue related to the Platte County Water Treatment Facility?

A. Yes, I can. As stated in the Direct Testimony of Missouri-American Water Company (“MAWC” or “Company”) witness Kevin H. Dunn, on pages 16 through

19, the Platte County Water Treatment Facility needs to be retired because the facility needs major renovations to continue to operate, however, these costs are not advisable to expend for this facility given the facility's age and continual degradation. The planned retirement is May 31, 2018. The Company anticipates the facility can continue to operate for 5 or 6 more years. However, the current depreciation rate is based on a remaining life closer to 15 years. Thus, the current depreciation rate will not recover the full service value of the Platte County Water Treatment Facility over its useful life. The Company suggests that the depreciation rate should be changed to reflect the new remaining life of the facility.

Q. How did the Staff of the Missouri Public Service Commission ("Staff") address this issue?

A. The Staff does not disagree with the Company's plans to retire the Platte County Water Treatment Facility in 2018, which is sooner than the currently-approved depreciation rates indicate. However, the Staff does disagree with increasing the depreciation rate to recover the remaining investment over a shorter life span. The basis of Staff's disagreement is a perceived over-accrued situation with some other asset classes not directly related to the Platte County facility.

Q. Can you elaborate on the Staff's position related to an over-accrued situation?

A. The Staff position is based on the calculation of the book reserve versus theoretical reserve set forth in the December 31, 2008 depreciation study. The 2008 depreciation study established a comparison of the actual book reserve to the theoretical reserve for all water assets to be $329,975,805 to $314,914,117,

respectively. The $15 million over-accrued situation is for all water assets; however, the accounts that relate to the Platte County Water Treatment Facility are actually under-accrued. Thus, the Staff position of an over-accrued situation is not related to the specific assets and corresponding depreciation rates.

Q. Can you further explain the inaccuracies of Staff in their methodology?

A. Yes. First, the approved rates are based on the whole life method which does not consider the relationship of the theoretical reserve to the actual book reserve. Second, the theoretical reserve in the December 31, 2008 Study, on which the Staff based its comparisons, utilizes the life span technique for some accounts which is not utilized in the ordered depreciation rates. Third, the recovery of each account or asset class is based on their individual account parameters, so delaying recovery of the investment in treatment facilities due to past recovery patterns of other assets is counter to the definition of depreciation as set forth by the Uniform System of Accounts.

Q. How is the whole life depreciation rate computed?

A. The whole life depreciation rate is calculated as one minus the net salvage percent divided by the whole life (average service life) by account. For example, the parameters for Account 304.3, Structures and Improvements – Water Treatment, are an average service life of 80 years (shown by survivor curve 80-R3) and a net salvage percent of negative 35 percent. Therefore, the depreciation rate is (1-(.35)/80) or 1.69 percent. This was the approved rate from the recent rate case. There is no reference or consideration of the relationship of the theoretical reserve to the actual book reserve.

Q. Has the theoretical reserve in Staff's exhibit been established using the

remaining life method and the life span technique?

A. Yes. The calculated accrued depreciation (theoretical reserve) utilized in the Staff exhibits is taken directly from the remaining life depreciation study as of December 31, 2008 conducted by Gannett Fleming, Inc. and directly under my supervision. Additionally, the theoretical reserve was based on the use of the life span technique for Accounts 304.2, 304.3, 305 and 306. In Staff's exhibit, the calculated accrued depreciation for Account 304.3 is $30,137,169 versus the actual book reserve of $26,100,173, an under-accrued situation. Thus, Staff's basis for establishing an over-accrued situation is not related to the currently approved depreciation rates as well as the parameters which established the reserve comparison.

Q. Is the reserve comparison made by Staff related to the account level or the Company level?

A. Staff has based their recommendation on the Company level reserve comparison. The account level comparison for Accounts 304.2 and 304.3 show the calculated accrued depreciation as higher than the actual book reserve as of December 31, 2008. Therefore, if Staff is going to make recommendations based on the Company level book reserve, then the actual book reserve must be reallocated to the account level each time a depreciation study is conducted. Staff's proposed reserve allocation is contrary to the designed concept of systematic and rational recovery for assets based on the known parameters.

Q. Can you summarize Staff's position related to depreciation?

A. Yes. Staff has selectively applied the remaining life method and life span technique results to assets that have previously only recovered service value

based on the whole life method and no life spanning. Additionally, Staff has focused on the level of the theoretical reserve to the actual book reserve for assets that are not related to the Platte County Water Treatment Facility. When there is a known parameter change as we have in this case, the recovery of the related assets must change. Staff has continually recommended no life spans for water treatment facilities until it is known when the facility is to be retired. The Platte County Water Treatment Facility will be retired by May 2018. Consequently, based on the definition of depreciation, the remaining service value of the facility should be recovered by May 2018.

Q. Does Staff recommend changing depreciation rates or expense due to the change in Platte County Water Treatment Facility?

A. No. On page 47 of the Staff Report, "Staff does not recommend that the Commission order any additional depreciation expense or amortization in response to MAWC's requests related to the Platte County (Parkville) water treatment plant."

Q. Is this recommendation consistent with the whole life method theory?

A. No. The authoritative text Public Utility Depreciation Practices by the National Association of Regulatory Utility Commissioners (NARUC) page 63, describes the whole life method as well as the proper handling of a comparable situation to this situation as follows:

> The Whole Life technique bases the depreciation rate on the estimated average service life of the plant category. Whole life depreciation results in the allocation of a gross plant base over the total life of the investment. However, to the extent that the estimated average service life assigned turns out to be incorrect, (and precision in these estimates cannot reasonably be expected), the Whole Life technique will result in a depreciation reserve imbalance. For example, such over-

accrual or under-accrual may remain in the reserve indefinitely unless offset by later overages or underages in the opposite direction. However, when a depreciation reserve excess or deficiency is reasonably certain, the Whole Life technique may be modified to include an adjustment to the accrual rate designed to eliminate the reserve imbalance in the future. For example, a special amortization of the difference may be allowed.

(emphasis added).

Q. Please use Account 304.3, Structures and Improvements – Water Treatment as an example of how recovery must change based on the current approved rates.

A. The current approved rates are based on the whole life method and no life span for Account 304.30. Therefore, the 1.69% rate that was approved using the 80-R3 survivor curve, negative 35% net salvage and no life span for the Platte County (Parkville) water treatment plant would theoretically have recovered $147,521 of the $494,294.34 of original cost as of December 31, 2008. See Schedule JJS-R1 for calculation of Account 304.30. Therefore, based on the theory of depreciation and the approved parameters, MAWC should recover $519,776 (($494,294 x (1-(.35))) - $147,521) through depreciation by May 2018. This recovery will not occur if we make no change to depreciation rates or expenses as Staff has recommended. Additionally, if decisions on depreciation are based on the overall Company level of the actual book reserve to the theoretical reserve, there is a need to reallocate the actual book reserve to the account level based on the known parameters. See Schedule JJS-R2 for the calculation of Account 304.3 with the new reserve reallocation. This sets forth the book reserve for the Parkville facility to be $192,159 and the future depreciation expense to be recovered as $475,138 by May 2018.

In other words, Staff's recommendations to leave the currently approved rates in place is not appropriate based on the known change in life characteristics of the Platte County facility and Staff's basis for mixing methodologies to arrive at a recommendation.

Q. Is this a prime example of why the use of the life span technique is important for certain accounts?

A. Yes. The use of the life span technique would have more appropriately recovered the service value of the facility over the full life of the facility instead of making major adjustments in the last few years of life. As shown on page III-225 of the 2008 Depreciation Study, the book reserve for the Parkville facility for Account 304.3 was $262,607. Therefore, there would be much less investment to be recovered in the future than what Staff is recommending with its parameters.

Q. Is this an example of why the remaining life method is better than the whole life method?

A. Yes. The remaining life method is continually monitoring the future recovery of the assets over the estimated remaining life. The remaining life method continually adjusts the depreciation rate to consider changes in the life characteristics in a fashion that is fair to all beneficiaries of an asset.

Q. Can you summarize the depreciation expense for the Platte County Water Treatment facility?

A. There is a known change in the life characteristics of the Platte County Water Treatment facility in this case, so the depreciation rate should be revised from the currently approved depreciation rates. Staff incorrectly recommends no change

due to applying inappropriate depreciation theory. Staff recommends the whole life method and no life span technique, yet refuses to change rates based on the remaining life method and the use of the life span technique as well as focusing on a reserve comparison that is not valid for this scenario. MAWC should revise the depreciation rates related to the Platte County assets based on the May 2018 retirement date.

Q. Does this conclude your testimony?

A. Yes, it does.

MISSOURI AMERICAN WATER COMPANY

ACCOUNT 304.30 STRUCTURES & IMPROVEMENTS - WATER TREATMENT

CALCULATED ANNUAL AND ACCRUED DEPRECIATION
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2008

YEAR	ORIGINAL COST	AVG. LIFE	--ANNUAL ACCRUAL-- RATE	AMOUNT	EXP.	-ACCRUED DEPREC.- FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
ST. JOSEPH							
SURVIVOR CURVE.. IOWA 80-R3							
NET SALVAGE PERCENT.. -35							
1923	29,380.85	80.00	1.25	495.80	13.73	.8284	32,858
1925	27,469.23	80.00	1.25	463.54	14.57	.8179	30,331
1926	17,422.67	80.00	1.25	294.01	15.00	.8125	19,110
1967	322,649.86	80.00	1.25	5,444.72	41.80	.4775	207,988
1992	2,359.51	80.00	1.25	39.82	64.02	.1997	636
1998	71,835.96	80.00	1.25	1,212.23	69.75	.1281	12,423
2000	22,170,024.32	80.00	1.25	374,119.16	71.69	.1039	3,109,678
2001	431,867.48	80.00	1.25	7,287.76	72.66	.0917	53,463
2002	262,968.72	80.00	1.25	4,437.60	73.63	.0796	28,259
2006	94,970.78	80.00	1.25	1,602.63	77.54	.0307	3,936
2007	188,372.09	80.00	1.25	3,178.78	78.52	.0185	4,705
2008	240,992.41	80.00	1.25	4,066.75	79.51	.0061	1,985
	23,860,313.88			402,642.80			3,505,372
PARKVILLE							
SURVIVOR CURVE.. IOWA 80-R3							
NET SALVAGE PERCENT.. -35							
1960	94,166.55	80.00	1.25	1,589.06	36.21	.5474	69,588
1962	7,677.15	80.00	1.25	129.55	37.77	.5279	5,471
1967	153.33	80.00	1.25	2.59	41.80	.4775	99
1973	157.35	80.00	1.25	2.66	46.83	.4146	88
1977	468.82	80.00	1.25	7.91	50.30	.3712	235
1978	2,193.89	80.00	1.25	37.02	51.18	.3602	1,067
1979	14,725.79	80.00	1.25	248.50	52.07	.3491	6,940
1980	934.80	80.00	1.25	15.77	52.96	.3380	427
1982	2,916.83	80.00	1.25	49.22	54.76	.3155	1,242
1983	3,269.25	80.00	1.25	55.17	55.67	.3041	1,342
1984	4,387.26	80.00	1.25	74.04	56.58	.2927	1,734
1985	2,210.21	80.00	1.25	37.30	57.49	.2814	840
1986	448.07	80.00	1.25	7.56	58.41	.2699	163
1990	285.13	80.00	1.25	4.81	62.14	.2232	86
1991	2,999.85	80.00	1.25	50.62	63.08	.2115	857
1993	4,135.48	80.00	1.25	69.79	64.97	.1879	1,049
1994	1,784.00	80.00	1.25	30.11	65.92	.1760	424
1997	887.38	80.00	1.25	14.97	68.79	.1401	168

MISSOURI AMERICAN WATER COMPANY

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YEAR	ORIGINAL COST	AVG. LIFE	--ANNUAL ACCRUAL-- RATE	AMOUNT	EXP.	-ACCRUED DEPREC.- FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
PARKVILLE							
SURVIVOR CURVE.. IOWA 80-R3							
NET SALVAGE PERCENT.. -35							
1998	310,680.10	80.00	1.25	5,242.73	69.75	.1281	53,727
2002	14,069.23	80.00	1.25	237.42	73.63	.0796	1,512
2006	7,495.62	80.00	1.25	126.49	77.54	.0307	311
2007	30.50	80.00	1.25	0.51	78.52	.0185	1
2008	18,217.75	80.00	1.25	307.42	79.51	.0061	150
	494,294.34			8,341.22			147,521
WARRENSBURG							
SURVIVOR CURVE.. IOWA 80-R3							
NET SALVAGE PERCENT.. -35							
1983	1,827.39	80.00	1.25	30.84	55.67	.3041	750
1991	4,209.77	80.00	1.25	71.04	63.08	.2115	1,202
1996	2,114.36	80.00	1.25	35.68	67.83	.1521	434
1998	1,009.07	80.00	1.25	17.03	69.75	.1281	175
2000	775,958.56	80.00	1.25	13,094.30	71.69	.1039	108,840
2001	1,152.81	80.00	1.25	19.45	72.66	.0917	143
2002	123.23	80.00	1.25	2.08	73.63	.0796	13
2004	5,166.91	80.00	1.25	87.19	75.58	.0552	385
2006	27,236.06	80.00	1.25	459.61	77.54	.0307	1,129
2007	43,564.68	80.00	1.25	735.15	78.52	.0185	1,088
2008	3,191.19	80.00	1.25	53.85	79.51	.0061	26
	865,554.03			14,606.22			114,185
BRUNSWICK							
SURVIVOR CURVE.. IOWA 80-R3							
NET SALVAGE PERCENT.. -35							
1956	10,912.26	80.00	1.25	184.14	33.17	.5854	8,624
1963	482.46	80.00	1.25	8.14	38.57	.5179	337
1985	199,081.40	80.00	1.25	3,359.50	57.49	.2814	75,629
1988	613.08	80.00	1.25	10.35	60.27	.2466	204
1989	1,679.51	80.00	1.25	28.34	61.20	.2350	533
1990	1,082.43	80.00	1.25	18.27	62.14	.2232	326
1992	657.33	80.00	1.25	11.09	64.02	.1997	177

MISSOURI AMERICAN WATER COMPANY

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RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2008

YEAR	ORIGINAL COST	AVG. LIFE	--ANNUAL ACCRUAL-- RATE	AMOUNT	EXP.	-ACCRUED DEPREC.- FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
BRUNSWICK							
SURVIVOR CURVE.. IOWA 80-R3							
NET SALVAGE PERCENT.. -35							
1993	3,343.89	80.00	1.25	56.43	64.97	.1879	848
2003	42,763.67	80.00	1.25	721.64	74.61	.0674	3,891
2006	6,856.31	80.00	1.25	115.70	77.54	.0307	284
2007	27.85	80.00	1.25	0.47	78.52	.0185	1
2008	54.74	80.00	1.25	0.92	79.51	.0061	
	267,554.93			4,514.99			90,854
MEXICO							
SURVIVOR CURVE.. IOWA 80-R3							
NET SALVAGE PERCENT.. -35							
1956	76,743.79	80.00	1.25	1,295.05	33.17	.5854	60,650
1960	128.60	80.00	1.25	2.17	36.21	.5474	95
1961	93.18	80.00	1.25	1.57	36.99	.5376	68
1967	733.37	80.00	1.25	12.38	41.80	.4775	473
1971	762.72	80.00	1.25	12.87	45.13	.4359	449
1980	2,417.25	80.00	1.25	40.79	52.96	.3380	1,103
1981	1,101.71	80.00	1.25	18.59	53.86	.3267	486
1983	207.63	80.00	1.25	3.50	55.67	.3041	85
1984	6,228.78	80.00	1.25	105.11	56.58	.2927	2,461
1989	38,404.06	80.00	1.25	648.07	61.20	.2350	12,184
1990	1,407.55	80.00	1.25	23.75	62.14	.2232	424
1992	15,505.53	80.00	1.25	261.66	64.02	.1997	4,180
1993	181,622.67	80.00	1.25	3,064.88	64.97	.1879	46,071
1994	23,256.06	80.00	1.25	392.45	65.92	.1760	5,526
1999	4,931.66	80.00	1.25	83.22	70.72	.1160	772
2000	2,731,537.35	80.00	1.25	46,094.69	71.69	.1039	383,139
2001	249,277.78	80.00	1.25	4,206.56	72.66	.0917	30,859
2002	18,229.11	80.00	1.25	307.62	73.63	.0796	1,959
2003	2,747.00	80.00	1.25	46.36	74.61	.0674	250
2004	4,935.56	80.00	1.25	83.29	75.58	.0552	368
	3,360,271.36			56,704.58			551,602

MISSOURI AMERICAN WATER COMPANY

ACCOUNT 304.30 STRUCTURES & IMPROVEMENTS - WATER TREATMENT

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YEAR	ORIGINAL COST	AVG. LIFE	--ANNUAL ACCRUAL-- RATE	AMOUNT	EXP.	-ACCRUED DEPREC.- FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
JOPLIN							
SURVIVOR CURVE.. IOWA 80-R3							
NET SALVAGE PERCENT.. -35							
1902	1,856.14	80.00	1.25	31.32	7.14	.9107	2,282
1916	84.85	80.00	1.25	1.43	11.16	.8605	99
1945	97.73	80.00	1.25	1.65	25.46	.6817	90
1946	99.57	80.00	1.25	1.68	26.12	.6735	91
1959	112,179.50	80.00	1.25	1,893.03	35.44	.5570	84,353
1968	497.77	80.00	1.25	8.40	42.62	.4672	314
1970	1,375.34	80.00	1.25	23.21	44.29	.4464	829
1973	228.91	80.00	1.25	3.86	46.83	.4146	128
1974	29,785.76	80.00	1.25	502.63	47.69	.4039	16,241
1975	5,159.37	80.00	1.25	87.06	48.55	.3931	2,738
1984	2,478.56	80.00	1.25	41.83	56.58	.2927	979
1985	2,073.50	80.00	1.25	34.99	57.49	.2814	788
1986	28,676.81	80.00	1.25	483.92	58.41	.2699	10,449
1989	27,004.34	80.00	1.25	455.70	61.20	.2350	8,567
1991	1,791.66	80.00	1.25	30.23	63.08	.2115	512
1992	1,960.00	80.00	1.25	33.08	64.02	.1997	528
1995	30,620.00	80.00	1.25	516.71	66.87	.1641	6,783
1997	39,492.95	80.00	1.25	666.44	68.79	.1401	7,469
2002	379,738.79	80.00	1.25	6,408.09	73.63	.0796	40,807
2003	35,082.24	80.00	1.25	592.01	74.61	.0674	3,192
2004	109,727.99	80.00	1.25	1,851.66	75.58	.0552	8,177
2006	17,528.84	80.00	1.25	295.80	77.54	.0307	726
2007	65.78	80.00	1.25	1.11	78.52	.0185	2
2008	7,773,846.23	80.00	1.25	131,183.66	79.51	.0061	64,018
	8,601,452.63			145,149.50			260,162
CORPORATE							
SURVIVOR CURVE.. IOWA 80-R3							
NET SALVAGE PERCENT.. -35							
2001	6,394.60	80.00	1.25	107.91	72.66	.0917	792
2007	40,318.33	80.00	1.25	680.37	78.52	.0185	1,007
2008	25,444.39	80.00	1.25	429.37	79.51	.0061	210
	72,157.32			1,217.65			2,009

MISSOURI AMERICAN WATER COMPANY

ACCOUNT 304.30 STRUCTURES & IMPROVEMENTS - WATER TREATMENT

CALCULATED ANNUAL AND ACCRUED DEPRECIATION
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2008

YEAR	ORIGINAL COST	AVG. LIFE	--ANNUAL ACCRUAL-- RATE	AMOUNT	EXP.	-ACCRUED DEPREC.- FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
ST. LOUIS							
SURVIVOR CURVE.. IOWA 80-R3							
NET SALVAGE PERCENT.. -35							
1903	29,167.74	80.00	1.25	492.21	7.40	.9075	35,734
1913	7,369.60	80.00	1.25	124.36	10.20	.8725	8,680
1926	1,573.17	80.00	1.25	26.55	15.00	.8125	1,726
1927	27,844.71	80.00	1.25	469.88	15.45	.8069	30,332
1931	664.05	80.00	1.25	11.21	17.35	.7831	702
1932	2,857.39	80.00	1.25	48.22	17.86	.7767	2,996
1933	530.57	80.00	1.25	8.95	18.38	.7702	552
1934	633.93	80.00	1.25	10.70	18.90	.7637	654
1935	351.56	80.00	1.25	5.93	19.44	.7570	359
1936	38,983.27	80.00	1.25	657.84	20.00	.7500	39,471
1937	2,202.93	80.00	1.25	37.17	20.56	.7430	2,210
1938	3,075.89	80.00	1.25	51.91	21.14	.7357	3,055
1939	321,938.06	80.00	1.25	5,432.70	21.72	.7285	316,618
1940	151.09	80.00	1.25	2.55	22.32	.7210	147
1941	415.80	80.00	1.25	7.02	22.93	.7134	400
1942	27.36	80.00	1.25	0.46	23.54	.7057	26
1944	743.66	80.00	1.25	12.55	24.81	.6899	693
1946	0.06	80.00	1.25		26.12	.6735	
1947	42,401.37	80.00	1.25	715.52	26.78	.6652	38,077
1948	20.41	80.00	1.25	0.34	27.46	.6567	18
1949	192.32	80.00	1.25	3.25	28.15	.6481	168
1950	3,360.79	80.00	1.25	56.71	28.84	.6395	2,901
1951	563.97	80.00	1.25	9.52	29.54	.6307	480
1952	11,111.94	80.00	1.25	187.51	30.25	.6219	9,329
1953	899,877.06	80.00	1.25	15,185.43	30.97	.6129	744,572
1954	12,730.13	80.00	1.25	214.82	31.70	.6037	10,375
1955	811,876.63	80.00	1.25	13,700.42	32.43	.5946	651,701
1956	255,087.93	80.00	1.25	4,304.61	33.17	.5854	201,593
1957	18,673.35	80.00	1.25	315.11	33.92	.5760	14,520
1958	2,792.53	80.00	1.25	47.12	34.68	.5665	2,136
1959	359.84	80.00	1.25	6.07	35.44	.5570	271
1960	246,767.86	80.00	1.25	4,164.21	36.21	.5474	182,359
1961	3,148.65	80.00	1.25	53.13	36.99	.5376	2,285
1962	7,001.58	80.00	1.25	118.15	37.77	.5279	4,990
1963	288.15	80.00	1.25	4.86	38.57	.5179	201
1964	915,859.42	80.00	1.25	15,455.13	39.36	.5080	628,096
1965	956.97	80.00	1.25	16.15	40.17	.4979	643

MISSOURI AMERICAN WATER COMPANY

ACCOUNT 304.30 STRUCTURES & IMPROVEMENTS - WATER TREATMENT

CALCULATED ANNUAL AND ACCRUED DEPRECIATION
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2008

YEAR	ORIGINAL COST	AVG. LIFE	--ANNUAL ACCRUAL-- RATE	AMOUNT	EXP.	-ACCRUED DEPREC.- FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
ST. LOUIS							
SURVIVOR CURVE.. IOWA 80-R3							
NET SALVAGE PERCENT.. -35							
1966	2,588.91	80.00	1.25	43.69	40.98	.4877	1,705
1967	26,413.28	80.00	1.25	445.72	41.80	.4775	17,027
1968	3,211,165.96	80.00	1.25	54,188.43	42.62	.4672	2,025,347
1969	8,174.95	80.00	1.25	137.95	43.45	.4569	5,042
1970	22,669.23	80.00	1.25	382.54	44.29	.4464	13,661
1971	3,060,758.52	80.00	1.25	51,650.30	45.13	.4359	1,801,149
1972	7,145.01	80.00	1.25	120.57	45.98	.4252	4,101
1973	978,090.92	80.00	1.25	16,505.28	46.83	.4146	547,447
1974	25,387.81	80.00	1.25	428.42	47.69	.4039	13,843
1975	5,650.22	80.00	1.25	95.35	48.55	.3931	2,998
1976	1,632.08	80.00	1.25	27.54	49.42	.3822	842
1977	1,003,194.03	80.00	1.25	16,928.90	50.30	.3712	502,721
1978	69,886.21	80.00	1.25	1,179.33	51.18	.3602	33,984
1979	40,228.12	80.00	1.25	678.85	52.07	.3491	18,959
1980	51,894.57	80.00	1.25	875.72	52.96	.3380	23,679
1981	15,965.68	80.00	1.25	269.42	53.86	.3267	7,042
1982	14,133.11	80.00	1.25	238.50	54.76	.3155	6,020
1983	413.60	80.00	1.25	6.98	55.67	.3041	170
1984	7,281.76	80.00	1.25	122.88	56.58	.2927	2,877
1985	1,925,962.36	80.00	1.25	32,500.61	57.49	.2814	731,654
1986	761,440.26	80.00	1.25	12,849.30	58.41	.2699	277,442
1987	242,678.25	80.00	1.25	4,095.20	59.34	.2582	84,590
1988	507,046.09	80.00	1.25	8,556.40	60.27	.2466	168,801
1989	2,805,218.81	80.00	1.25	47,338.07	61.20	.2350	889,956
1990	247,285.76	80.00	1.25	4,172.95	62.14	.2232	74,512
1991	444,499.40	80.00	1.25	7,500.93	63.08	.2115	126,916
1992	395,796.43	80.00	1.25	6,679.06	64.02	.1997	106,705
1993	7,535,904.87	80.00	1.25	127,168.39	64.97	.1879	1,911,595
1994	1,428,066.73	80.00	1.25	24,098.63	65.92	.1760	339,309
1995	2,010,209.31	80.00	1.25	33,922.28	66.87	.1641	445,332
1996	1,008,845.77	80.00	1.25	17,024.27	67.83	.1521	207,151
1997	1,393,127.86	80.00	1.25	23,509.03	68.79	.1401	263,489
1998	818,926.68	80.00	1.25	13,819.39	69.75	.1281	141,621
1999	212,617.42	80.00	1.25	3,587.92	70.72	.1160	33,296
2000	987,240.36	80.00	1.25	16,659.68	71.69	.1039	138,475
2001	1,139,798.90	80.00	1.25	19,234.11	72.66	.0917	141,101
2002	5,205,496.55	80.00	1.25	87,842.75	73.63	.0796	559,383

MISSOURI AMERICAN WATER COMPANY

ACCOUNT 304.30 STRUCTURES & IMPROVEMENTS - WATER TREATMENT

CALCULATED ANNUAL AND ACCRUED DEPRECIATION
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2008

YEAR	ORIGINAL COST	AVG. LIFE	--ANNUAL ACCRUAL-- RATE	AMOUNT	EXP.	-ACCRUED DEPREC.- FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
ST. LOUIS							
SURVIVOR CURVE.. IOWA 80-R3							
NET SALVAGE PERCENT.. -35							
2003	299,295.13	80.00	1.25	5,050.61	74.61	.0674	27,233
2004	629,940.90	80.00	1.25	10,630.25	75.58	.0552	46,943
2005	79,446.49	80.00	1.25	1,340.66	76.56	.0430	4,612
2006	1,253,499.50	80.00	1.25	21,152.80	77.54	.0307	51,951
2007	5,417,642.13	80.00	1.25	91,422.71	78.52	.0185	135,306
2008	3,226,175.69	80.00	1.25	54,441.71	79.51	.0061	26,568
	52,200,437.36			880,882.35			14,901,625
JEFFERSON							
SURVIVOR CURVE.. IOWA 80-R3							
NET SALVAGE PERCENT.. -35							
1925	172.00	80.00	1.25	2.90	14.57	.8179	190
1927	46,940.00	80.00	1.25	792.11	15.45	.8069	51,132
1928	38.00	80.00	1.25	0.64	15.91	.8011	41
1929	21,994.13	80.00	1.25	371.15	16.38	.7952	23,611
1942	186.00	80.00	1.25	3.14	23.54	.7057	177
1950	429.91	80.00	1.25	7.25	28.84	.6395	371
1951	523.00	80.00	1.25	8.83	29.54	.6307	445
1954	3,533.13	80.00	1.25	59.62	31.70	.6037	2,879
1959	2,329.00	80.00	1.25	39.30	35.44	.5570	1,751
1964	3,603.00	80.00	1.25	60.80	39.36	.5080	2,471
1965	51,430.00	80.00	1.25	867.88	40.17	.4979	34,569
1966	1,070.00	80.00	1.25	18.06	40.98	.4877	704
1969	2,312.00	80.00	1.25	39.02	43.45	.4569	1,426
1970	3,287.00	80.00	1.25	55.47	44.29	.4464	1,981
1976	817.00	80.00	1.25	13.79	49.42	.3822	422
1977	3,968.00	80.00	1.25	66.96	50.30	.3712	1,988
1985	20,286.00	80.00	1.25	342.33	57.49	.2814	7,706
1987	15,165.00	80.00	1.25	255.91	59.34	.2582	5,286
1988	1,060.00	80.00	1.25	17.89	60.27	.2466	353
1989	785.00	80.00	1.25	13.25	61.20	.2350	249
1991	645.00	80.00	1.25	10.88	63.08	.2115	184
1992	8,955.00	80.00	1.25	151.12	64.02	.1997	2,414
1996	1,354.00	80.00	1.25	22.85	67.83	.1521	278
1998	1,587,286.24	80.00	1.25	26,785.46	69.75	.1281	274,497

MISSOURI AMERICAN WATER COMPANY

ACCOUNT 304.30 STRUCTURES & IMPROVEMENTS - WATER TREATMENT

CALCULATED ANNUAL AND ACCRUED DEPRECIATION
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2008

YEAR	ORIGINAL COST	AVG. LIFE	--ANNUAL ACCRUAL-- RATE	AMOUNT	EXP.	-ACCRUED DEPREC.- FACTOR	AMOUNT
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)
JEFFERSON							
SURVIVOR CURVE.. IOWA 80-R3							
NET SALVAGE PERCENT.. -35							
2000	1,103.12	80.00	1.25	18.62	71.69	.1039	155
2001	101,718.87	80.00	1.25	1,716.51	72.66	.0917	12,592
2002	324,265.65	80.00	1.25	5,471.98	73.63	.0796	34,846
2005	1,431.33	80.00	1.25	24.15	76.56	.0430	83
2006	4,984.32	80.00	1.25	84.11	77.54	.0307	207
2007	32,335.60	80.00	1.25	545.66	78.52	.0185	808
	2,244,007.30			37,867.64			463,816
WARREN CITY							
SURVIVOR CURVE.. IOWA 80-R3							
NET SALVAGE PERCENT.. -35							
2008	4,166.49	80.00	1.25	70.31	79.51	.0061	34
TOTAL	91,970,209.64			1,551,997.26			20,037,180

COMPOSITE ANNUAL ACCRUAL RATE, PERCENT.. 1.69

MISSOURI AMERICAN WATER COMPANY

ACCOUNT 304.30 STRUCTURES & IMPROVEMENTS - WATER TREATMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2008

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
ST. JOSEPH						
SURVIVOR CURVE.. IOWA 80-R3						
NET SALVAGE PERCENT.. -35						
1923	29,380.85	32,858	39,664			
1925	27,469.23	30,331	37,083			
1926	17,422.67	19,110	23,521			
1967	322,649.86	207,988	271,344	164,233	41.80	3,929
1992	2,359.51	636	830	2,355	64.02	37
1998	71,835.96	12,423	16,207	80,772	69.75	1,158
2000	22,170,024.32	3,109,678	4,056,925	25,872,608	71.69	360,896
2001	431,867.48	53,463	69,748	513,273	72.66	7,064
2002	262,968.72	28,259	36,867	318,141	73.63	4,321
2006	94,970.78	3,936	5,135	123,076	77.54	1,587
2007	188,372.09	4,705	6,138	248,164	78.52	3,161
2008	240,992.41	1,985	2,590	322,750	79.51	4,059
	23,860,313.88	3,505,372	4,566,052	27,645,372		386,212
PARKVILLE						
INTERIM SURVIVOR CURVE.. IOWA 80-R3						
PROBABLE RETIREMENT YEAR.. 5-2018						
NET SALVAGE PERCENT.. -35						
1960	94,166.55	106,264	52,710	74,415	9.10	8,177
1962	7,677.15	8,604	4,268	6,096	9.13	668
1967	153.33	168	83	124	9.20	13
1973	157.35	168	83	129	9.26	14
1977	468.82	487	242	391	9.29	42
1978	2,193.89	2,260	1,121	1,841	9.30	198
1979	14,725.79	15,051	7,466	12,414	9.31	1,333
1980	934.80	948	470	792	9.31	85
1982	2,916.83	2,903	1,440	2,498	9.32	268
1983	3,269.25	3,220	1,597	2,816	9.33	302
1984	4,387.26	4,273	2,120	3,803	9.34	407
1985	2,210.21	2,128	1,056	1,928	9.34	206
1986	448.07	426	211	394	9.35	42
1990	285.13	255	126	259	9.36	28
1991	2,999.85	2,631	1,305	2,745	9.37	293
1993	4,135.48	3,469	1,721	3,862	9.38	412
1994	1,784.00	1,459	724	1,684	9.38	180

MISSOURI AMERICAN WATER COMPANY

ACCOUNT 304.30 STRUCTURES & IMPROVEMENTS - WATER TREATMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2008

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
PARKVILLE						
INTERIM SURVIVOR CURVE.. IOWA 80-R3						
PROBABLE RETIREMENT YEAR.. 5-2018						
NET SALVAGE PERCENT.. -35						
1997	887.38	658	326	872	9.39	93
1998	310,680.10	220,908	109,576	309,842	9.39	32,997
2002	14,069.23	7,751	3,845	15,148	9.40	1,611
2006	7,495.62	2,117	1,050	9,069	9.41	964
2007	30.50	6	3	38	9.41	4
2008	18,217.75	1,242	616	23,978	9.41	2,548
	494,294.34	387,396	192,159	475,138		50,885
WARRENSBURG						
SURVIVOR CURVE.. IOWA 80-R3						
NET SALVAGE PERCENT.. -35						
1983	1,827.39	750	977	1,490	55.67	27
1991	4,209.77	1,202	1,566	4,117	63.08	65
1996	2,114.36	434	565	2,289	67.83	34
1998	1,009.07	175	228	1,134	69.75	16
2000	775,958.56	108,840	141,774	905,770	71.69	12,635
2001	1,152.81	143	186	1,370	72.66	19
2002	123.23	13	17	149	73.63	2
2004	5,166.91	385	501	6,474	75.58	86
2006	27,236.06	1,129	1,471	35,298	77.54	455
2007	43,564.68	1,088	1,417	57,395	78.52	731
2008	3,191.19	26	34	4,274	79.51	54
	865,554.03	114,185	148,736	1,019,760		14,124
BRUNSWICK						
SURVIVOR CURVE.. IOWA 80-R3						
NET SALVAGE PERCENT.. -35						
1956	10,912.26	8,624	11,233	3,499	33.17	105
1963	482.46	337	439	212	38.57	5
1985	199,081.40	75,629	98,514	170,246	57.49	2,961
1988	613.08	204	266	562	60.27	9
1989	1,679.51	533	694	1,573	61.20	26

MISSOURI AMERICAN WATER COMPANY

ACCOUNT 304.30 STRUCTURES & IMPROVEMENTS - WATER TREATMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2008

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
BRUNSWICK						
SURVIVOR CURVE.. IOWA 80-R3						
NET SALVAGE PERCENT.. -35						
1990	1,082.43	326	425	1,036	62.14	17
1992	657.33	177	231	656	64.02	10
1993	3,343.89	848	1,104	3,410	64.97	52
2003	42,763.67	3,891	5,068	52,663	74.61	706
2006	6,856.31	284	370	8,886	77.54	115
2007	27.85	1	1	37	78.52	
2008	54.74			74	79.51	1
	267,554.93	90,854	118,345	242,854		4,007
MEXICO						
SURVIVOR CURVE.. IOWA 80-R3						
NET SALVAGE PERCENT.. -35						
1956	76,743.79	60,650	79,002	24,602	33.17	742
1960	128.60	95	124	50	36.21	1
1961	93.18	68	89	37	36.99	1
1967	733.37	473	616	374	41.80	9
1971	762.72	449	585	445	45.13	10
1980	2,417.25	1,103	1,437	1,826	52.96	34
1981	1,101.71	486	633	854	53.86	16
1983	207.63	85	111	169	55.67	3
1984	6,228.78	2,461	3,206	5,203	56.58	92
1989	38,404.06	12,184	15,871	35,974	61.20	588
1990	1,407.55	424	552	1,348	62.14	22
1992	15,505.53	4,180	5,445	15,487	64.02	242
1993	181,622.67	46,071	60,011	185,180	64.97	2,850
1994	23,256.06	5,526	7,198	24,198	65.92	367
1999	4,931.66	772	1,006	5,652	70.72	80
2000	2,731,537.35	383,139	499,071	3,188,504	71.69	44,476
2001	249,277.78	30,859	40,196	296,329	72.66	4,078
2002	18,229.11	1,959	2,552	22,057	73.63	300
2003	2,747.00	250	326	3,382	74.61	45
2004	4,935.56	368	479	6,184	75.58	82
	3,360,271.36	551,602	718,510	3,817,855		54,038

MISSOURI AMERICAN WATER COMPANY

ACCOUNT 304.30 STRUCTURES & IMPROVEMENTS - WATER TREATMENT

CALCULATED REMAINING LIFE DEPRECIATION ACCRUAL
RELATED TO ORIGINAL COST AS OF DECEMBER 31, 2008

YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
JOPLIN						
SURVIVOR CURVE.. IOWA 80-R3						
NET SALVAGE PERCENT.. -35						
1902	1,856.14	2,282	2,506			
1916	84.85	99	115			
1945	97.73	90	117	15	25.46	1
1946	99.57	91	119	15	26.12	1
1959	112,179.50	84,353	110,034	41,408	35.44	1,168
1968	497.77	314	410	262	42.62	6
1970	1,375.34	829	1,081	776	44.29	18
1973	228.91	128	167	142	46.83	3
1974	29,785.76	16,241	21,186	19,025	47.69	399
1975	5,159.37	2,738	3,572	3,393	48.55	70
1984	2,478.56	979	1,277	2,069	56.58	37
1985	2,073.50	788	1,028	1,771	57.49	31
1986	28,676.81	10,449	13,630	25,084	58.41	429
1989	27,004.34	8,567	11,175	25,281	61.20	413
1991	1,791.66	512	668	1,751	63.08	28
1992	1,960.00	528	689	1,957	64.02	31
1995	30,620.00	6,783	8,848	32,489	66.87	486
1997	39,492.95	7,469	9,743	43,572	68.79	633
2002	379,738.79	40,807	53,231	459,416	73.63	6,240
2003	35,082.24	3,192	4,164	43,197	74.61	579
2004	109,727.99	8,177	10,666	137,467	75.58	1,819
2006	17,528.84	726	947	22,717	77.54	293
2007	65.78	2	3	86	78.52	1
2008	7,773,846.23	64,018	83,508	10,411,184	79.51	130,942
	8,601,452.63	260,162	338,884	11,273,077		143,628
CORPORATE						
SURVIVOR CURVE.. IOWA 80-R3						
NET SALVAGE PERCENT.. -35						
2001	6,394.60	792	1,032	7,601	72.66	105
2007	40,318.33	1,007	1,311	53,119	78.52	677
2008	25,444.39	210	274	34,076	79.51	429
	72,157.32	2,009	2,617	94,796		1,211

MISSOURI AMERICAN WATER COMPANY

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YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
ST. LOUIS						
SURVIVOR CURVE.. IOWA 80-R3						
NET SALVAGE PERCENT.. -35						
1903	29,167.74	35,734	39,376			
1913	7,369.60	8,680	9,949			
1926	1,573.17	1,726	2,124			
1927	27,844.71	30,332	37,590			
1931	664.05	702	896			
1932	2,857.39	2,996	3,857			
1933	530.57	552	716			
1934	633.93	654	852	4	18.90	
1935	351.56	359	468	7	19.44	
1936	38,983.27	39,471	51,443	1,184	20.00	59
1937	2,202.93	2,210	2,880	94	20.56	5
1938	3,075.89	3,055	3,982	170	21.14	8
1939	321,938.06	316,618	412,650	21,966	21.72	1,011
1940	151.09	147	192	12	22.32	1
1941	415.80	400	521	40	22.93	2
1942	27.36	26	34	3	23.54	
1944	743.66	693	903	101	24.81	4
1946	0.06					
1947	42,401.37	38,077	49,626	7,616	26.78	284
1948	20.41	18	23	5	27.46	
1949	192.32	168	219	41	28.15	1
1950	3,360.79	2,901	3,781	756	28.84	26
1951	563.97	480	626	135	29.54	5
1952	11,111.94	9,329	12,159	2,842	30.25	94
1953	899,877.06	744,572	970,404	244,430	30.97	7,892
1954	12,730.13	10,375	13,522	3,664	31.70	116
1955	811,876.63	651,701	849,365	246,668	32.43	7,606
1956	255,087.93	201,593	262,737	81,632	33.17	2,461
1957	18,673.35	14,520	18,924	6,285	33.92	185
1958	2,792.53	2,136	2,784	986	34.68	28
1959	359.84	271	353	133	35.44	4
1960	246,767.86	182,359	237,669	95,468	36.21	2,637
1961	3,148.65	2,285	2,978	1,273	36.99	34
1962	7,001.58	4,990	6,503	2,949	37.77	78
1963	288.15	201	262	127	38.57	3
1964	915,859.42	628,096	818,601	417,809	39.36	10,615
1965	956.97	643	838	454	40.17	11

MISSOURI AMERICAN WATER COMPANY

ACCOUNT 304.30 STRUCTURES & IMPROVEMENTS - WATER TREATMENT

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YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
ST. LOUIS						
SURVIVOR CURVE.. IOWA 80-R3						
NET SALVAGE PERCENT.. -35						
1966	2,588.91	1,705	2,222	1,273	40.98	31
1967	26,413.28	17,027	22,191	13,467	41.80	322
1968	3,211,165.96	2,025,347	2,639,645	1,695,429	42.62	39,780
1969	8,174.95	5,042	6,571	4,465	43.45	103
1970	22,669.23	13,661	17,804	12,799	44.29	289
1971	3,060,758.52	1,801,149	2,347,447	1,784,577	45.13	39,543
1972	7,145.01	4,101	5,345	4,301	45.98	94
1973	978,090.92	547,447	713,490	606,933	46.83	12,960
1974	25,387.81	13,843	18,042	16,232	47.69	340
1975	5,650.22	2,998	3,907	3,721	48.55	77
1976	1,632.08	842	1,097	1,106	49.42	22
1977	1,003,194.03	502,721	655,199	699,113	50.30	13,899
1978	69,886.21	33,984	44,292	50,054	51.18	978
1979	40,228.12	18,959	24,709	29,599	52.07	568
1980	51,894.57	23,679	30,861	39,197	52.96	740
1981	15,965.68	7,042	9,178	12,376	53.86	230
1982	14,133.11	6,020	7,846	11,234	54.76	205
1983	413.60	170	222	336	55.67	6
1984	7,281.76	2,877	3,750	6,080	56.58	107
1985	1,925,962.36	731,654	953,568	1,646,481	57.49	28,639
1986	761,440.26	277,442	361,592	666,352	58.41	11,408
1987	242,678.25	84,590	110,247	217,369	59.34	3,663
1988	507,046.09	168,801	219,999	464,513	60.27	7,707
1989	2,805,218.81	889,956	1,159,884	2,627,161	61.20	42,927
1990	247,285.76	74,512	97,112	236,724	62.14	3,810
1991	444,499.40	126,916	165,410	434,664	63.08	6,891
1992	395,796.43	106,705	139,069	395,256	64.02	6,174
1993	7,535,904.87	1,911,595	2,491,391	7,682,081	64.97	118,240
1994	1,428,066.73	339,309	442,223	1,485,667	65.92	22,537
1995	2,010,209.31	445,332	580,404	2,133,379	66.87	31,903
1996	1,008,845.77	207,151	269,981	1,091,961	67.83	16,098
1997	1,393,127.86	263,489	343,407	1,537,316	68.79	22,348
1998	818,926.68	141,621	184,575	920,976	69.75	13,204
1999	212,617.42	33,296	43,395	243,639	70.72	3,445
2000	987,240.36	138,475	180,475	1,152,299	71.69	16,073
2001	1,139,798.90	141,101	183,898	1,354,831	72.66	18,646
2002	5,205,496.55	559,383	729,046	6,298,374	73.63	85,541

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YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
ST. LOUIS						
SURVIVOR CURVE.. IOWA 80-R3						
NET SALVAGE PERCENT.. -35						
2003	299,295.13	27,233	35,493	368,555	74.61	4,940
2004	629,940.90	46,943	61,181	789,239	75.58	10,442
2005	79,446.49	4,612	6,011	101,242	76.56	1,322
2006	1,253,499.50	51,951	67,708	1,624,516	77.54	20,951
2007	5,417,642.13	135,306	176,345	7,137,472	78.52	90,900
2008	3,226,175.69	26,568	34,626	4,320,711	79.51	54,342
	52,200,437.36	14,901,625	19,410,665	51,059,924		785,615
JEFFERSON						
SURVIVOR CURVE.. IOWA 80-R3						
NET SALVAGE PERCENT.. -35						
1925	172.00	190	232			
1927	46,940.00	51,132	63,369			
1928	38.00	41	51			
1929	21,994.13	23,611	29,692			
1942	186.00	177	233	18	23.54	1
1950	429.91	371	487	93	28.84	3
1951	523.00	445	585	121	29.54	4
1954	3,533.13	2,879	3,782	988	31.70	31
1959	2,329.00	1,751	2,300	844	35.44	24
1964	3,603.00	2,471	3,246	1,618	39.36	41
1965	51,430.00	34,569	45,413	24,018	40.17	598
1966	1,070.00	704	925	520	40.98	13
1969	2,312.00	1,426	1,873	1,248	43.45	29
1970	3,287.00	1,981	2,602	1,835	44.29	41
1976	817.00	422	554	549	49.42	11
1977	3,968.00	1,988	2,612	2,745	50.30	55
1985	20,286.00	7,706	10,123	17,263	57.49	300
1987	15,165.00	5,286	6,944	13,529	59.34	228
1988	1,060.00	353	464	967	60.27	16
1989	785.00	249	327	733	61.20	12
1991	645.00	184	242	629	63.08	10
1992	8,955.00	2,414	3,171	8,918	64.02	139
1996	1,354.00	278	365	1,463	67.83	22
1998	1,587,286.24	274,497	360,604	1,782,232	69.75	25,552

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YEAR (1)	ORIGINAL COST (2)	CALCULATED ACCRUED (3)	ALLOC. BOOK RESERVE (4)	FUT. BOOK ACCRUALS (5)	REM. LIFE (6)	ANNUAL ACCRUAL (7)
JEFFERSON						
SURVIVOR CURVE.. IOWA 80-R3						
NET SALVAGE PERCENT.. -35						
2000	1,103.12	155	204	1,285	71.69	18
2001	101,718.87	12,592	16,542	120,778	72.66	1,662
2002	324,265.65	34,846	45,777	391,982	73.63	5,324
2005	1,431.33	83	109	1,823	76.56	24
2006	4,984.32	207	272	6,457	77.54	83
2007	32,335.60	808	1,061	42,592	78.52	542
	2,244,007.30	463,816	604,161	2,425,248		34,783
WARREN CITY						
SURVIVOR CURVE.. IOWA 80-R3						
NET SALVAGE PERCENT.. -35						
2008	4,166.49	34	44	5,581	79.51	70
	91,970,209.64	20,277,055	26,100,173	98,059,605		1,474,573
COMPOSITE REMAINING LIFE AND ANNUAL ACCRUAL RATE, PCT..					66.5	1.60