Exhibit No.:	
Issue:	Depreciation of Plant
Witness:	Woodie C. Smith
Type of Exhibit:	Direct Testimony
Sponsoring Party:	MO PSC Staff
Case No.:	WR-97-237
	SR-97-238

MISSOURI PUBLIC SERVICE COMMISSION

UTILITY OPERATIONS DIVISION

MISSOURI AMERICAN WATER COMPANY

CASE NOS. WR-97-237 & SR-97-238

FILED[3]

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Missouri Public
Service Commission

DIRECT TESTIMONY

OF

WOODIE C. SMITH

Jefferson City, Missouri
May 1997

Exhibit No. 125
Case No(s). WR-2003-0500
Date 12-23-03 Rptr JL

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DIRECT TESTIMONY

OF

WOODIE C. SMITH

Jefferson City, Missouri
May 1997

DIRECT TESTIMONY
OF
WOODIE C. SMITH
MISSOURI-AMERICAN WATER COMPANY
WR-97-237 & SR-97-238

Q. Please state your name and business address.

A. Woodie C. Smith, P.O. Box 360, Jefferson City, Missouri 65102.

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

A. I am employed by the Missouri Public Service Commission (Commission) as an Engineer in the Depreciation Department.

Q. What is the purpose of your testimony in this docket?

A. I will present the Commission Staff's (Staff's) position and methods supporting depreciation rates and an amortization for Missouri-American Water Company (MAWC) in this docket.

WITNESS INTRODUCTION

Q. Would you please state briefly your qualifications, educational background and experience.

A. I received a Bachelor of Science degree in Electrical Engineering in 1965 from North Carolina State University. I am an Engineer in Training under the laws of the State of North Carolina.

I worked with the U.S. Veterans Administration as a Resident Engineer in Memphis, Tennessee from 1965 till 1966. As Resident Engineer, I was responsible for contract and specification adherence by the contractor on the new V.A. hospital in Memphis.

I served in the U.S. Army from 1966 through 1968 and was assigned as an Electrical Engineering Assistant to the U.S. Army Armor Human Resources Unit in Fort Knox, Kentucky. I designed, built, and coordinated field, laboratory, and office equipment

which supported the testing activities of the unit in the areas of U.S. Army Armor Research.

From 1968 to 1995, I was employed by Carolina Power and Light Company (CP&L), with increasing responsibilities in customer service, engineering, material standards, metering, and system planning departments.

My work as a customer service engineer took place from 1968 through 1970 with various assignments in North Carolina. During this time, I coordinated industrial, commercial and residential customer service requests and prepared field work orders for the facilities required to provide service.

As Wilmington District Engineer from 1970 through 1980 I supervised the district's engineering functions, coordinated the system planning functions, and developed special construction specifications which addressed the problems of coastal winds, sand and salt. From 1980 through 1984, as Eastern Division Engineer, I coordinated and supported the four district engineering offices in the division.

As Manager of Material Standards from 1984 to 1989, I was responsible for the engineering and cost estimates of CP&L Distribution Construction Specifications and the over 2000 material items approved for the system. I conducted vendor plant inspections to review manufacturing processes and quality of materials utilized for products.

From 1990 through 1995, I was assigned as the Wilmington District Engineering Supervisor with responsibilities for customer service design, scheduling, right of way acquisition, and construction coordination for the district. Other duties included supervising a staff of 20 engineers, technicians, specialists and clerks, budgeting and forecasting and projecting customer load growth in the district.

From 1984 until 1995, I reviewed the existing service regulations and provided recommendations for filing rate changes with the North Carolina Utilities Commission.

I have been employed as Depreciation Engineer since joining the Staff in 1995. I have been trained in basic depreciation concepts by Depreciation Programs, Inc. My responsibilities cover all depreciation related matters which the Staff must address, including: submission of evidence as an expert witness; the preparation of depreciation, life and salvage studies; examination of plant property records; and review of property sales.

DEPRECIATION RATES SUMMARY

Q. Please summarize your testimony regarding depreciation rates for the Company.

A. I recommend that MAWC's existing prescribed depreciation rates remain unchanged as a result of this case. Additionally, I propose a ten year amortization of the anticipated unrecovered investment in St. Joseph water treatment facility which is currently scheduled for retirement in the year 2001. The unrecovered investment is $3,964,372 as of the Operation of Law Date of this case.

Q. The Commission stated in its Report and Order in Case Nos. WR-95-205 and SR-95-206 that "Company has agreed to perform a depreciation study as described in the direct testimony of Staff witness Birenbaum before tariff sheets are filed in its next general rate case, or within two years of the Report and Order issued in this case, whichever first occurs". Please state for the record what has transpired relating to depreciation since the conclusion of that case.

A. The Company filed this rate case with the Commission on December 13, 1996, and the requested depreciation study was filed with its direct testimony and tariff sheets in this docket on January 21, 1997. MAWC relied on data thsough year end 1995 to conduct its study.

Staff requested data from MAWC for its depreciation analysis purposes in a data

request on January 21,1997. MAWC provided data as requested in a timely fashion. However, numerous errors were contained in the data files provided for some of the Company's largest accounts. Staff worked closely with MAWC's depreciation witness, Mr. Thomas McKitrick, until suitable data files were eventually received by Staff on May 5, 1997, following a meeting held to work out the problems with Staff and Mr. McKitrick in Jefferson City.

Q. Did the Staff prepare an independent depreciation study?

A. Yes.

Q. Mr. Smith, please describe any difficulties you encountered interpreting MAWC's depreciation data, and performing Staff's analysis.

A. MAWC's management of the merged Missouri companies had been limited to 13 months at the time the 1996 Depreciation Study was completed. Specifically, the data contained property retirements for plant which was not recorded as ever having been placed into service. This data thereby produced anomalous depreciation calculations for the Staff study. Additionally, the translation of data to the format requested by the Depreciation Department contained coding errors which distorted Staff calculations. The 1922-1956 data concerns were visible in several of the long lived accounts which had short cased survivor curves, that is, property had no retirements for 40 plus years of aged data.

In my opinion, the quality of Company records will be improved with Missouri-American management's continuity and operation. Since major system modifications are being planned for the MAWC's St. Joseph District in 2001 which will likely require modifications to treatment plant depreciation rates, an updated depreciation study for a rate case in that time frame should reflect final planning decisions for plant retirements at St. Joseph and provide additional improvements of the merged company records and operations.

Q. What process was employed to determine the recommended depreciation rates for this case?

A. The depreciation rates recommended by Staff, were formulated on the basis of traditional straight line whole life depreciation method. In conjunction with and to prepare for this study, Staff conducted field inspections and discussed plant operations with local operators at these locations: St. Charles, Brunswick, Mexico, Parkville, and Warrensburg. After study of the data provided by the Company, a determination with respect to appropriate useful lives and salvage values to apply to the plant accounts was made.

Q. Are you recommending that the Commission continue the existing depreciation rates approved in Case No. WR-95-205?

A. Yes.

Q. Why are you recommending no changes to MAWC's depreciation rates?

A. I believe that the rates developed for Case No. WR-95-205 and ordered by the Commission are reflective of the correct useful life and salvage factors to continue to be applied to the Company today. The existing rates are reasonable in light of the construction and retirement experience in the Company's service areas. This additional recent history has not proven a need for revised depreciation factors and rates.

DEPRECIATION RESERVE AMORTIZATION

Q. Do you recommend any adjustments for existing accrued depreciation expense or reserve depreciation balance for the Company?

A. Yes. The Tt. Joseph water treatment plant is currently scheduled for retirement in 2001. At the current rates of depreciation for the six accounts containing the St. Joseph water treatment plant investment, $3,964,372 will remain unrecovered at the approximate operation of law date in this docket, November 12, 1997, and $3,133,075 at

the end of the year 2001 at the current rates of depreciation.

I believe depreciation expense should be increased in this case because under-recovery of the original plant investment is fully anticipated. To wait until the plant is actually retired to begin this additional recovery unfairly shifts the burden of recovery to future ratepayers who would not be receiving service from this facility.

I must temper my concerns about intergenerational equity with knowledge that it is entirely possible that construction of the replacement St. Joseph plant may be delayed for various reasons and the retirement of the existing plant would therefore be delayed as well. To allow for this uncertainty, rather than recommend full recovery by the year 2001 I am recommending that recovery begin immediately, but at a pace to fully recover the investment in 10 years instead of 4.

The Commission has approved various periods of amortizations for under recoveries in past cases, with 3 to 10 years being most common.

DEPRECIATION PURPOSE

Q. Mr. Smith, in your opinion, what is the purpose of depreciation?

A. To recover the original cost of fixed capital assets, less net salvage, from the consumers over the useful life of the property.

Q. How is the annual accrual for depreciation calculated?

A. The original cost of the Company's assets are maintained in plant accounts according to the Uniform System of Accounts for Class A Water Utilities as defined by the National Association of Regulatory Utility Commissioners. Depreciation rates are approved by the Commission for each plant account. The rates, when applied to the average plant balance for each account in a period, result in depreciation expense for the period. The sum of this expense for a year is the annual accrual for depreciation.

Q. Mr. Smith, on what basis were the existing depreciation rates determined?

A. The straight line whole life method is the basis of the currently approved rates. Under this method, the depreciation rate for each account is calculated by subtracting the net salvage per cent from one (1.0) and dividing the result by the expected average service life. Rates for MAWC's and Missouri Cities Water Company prior to the merger were composited based on the plant balance in each account. These depreciation rates were approved in Case No. WR-95-205.

NET SALVAGE DISCUSSION

Q. Please define "net salvage"and how it is determined for each plant account.

A. Net salvage simply means the salvage value of the retired property after deducting the cost of retiring and removing it from service. It is also expressed as the gross salvage less cost of removal.

Net salvage may be positive, such as in the case of vehicles, for example. Companies such as MAWC reasonably expect to be able to sell nearly all of its vehicle fleet for some dollar amount with little to no cost of removing them from service.

Net salvage can also be negative, as in the case of water mains. Mains are usually abandoned in place, yet the Company experiences costs to disconnect the sections from service.

Q. How is the net salvage per cent, discussed in the aforementioned depreciation rate formula, derived?

A. The net salvage dollars realized due to retirements of plant items, positive or negative, are divided by the original plant cost of those same items.

Q. On what information did you base your net salvage per cent calculations?

A. For each plant account, MAWC furnished historical data from 1987 through year end 1995. The data enumerates plant retirements, gross salvage and cost of removal for each vintage. Five year band analyses were conducted to identify trends and to

exclude anomalies in per cent salvage over time.

AVERAGE SERVICE LIFE DISCUSSION

Q. How are the average service lives determined that you use in your depreciation rate calculations?

A. The answer to this question is two-fold and is dependent upon characteristics of the units of property in the account in question.

Q. Please elaborate.

A. Certain accounts contain property which can be expected to retire upon reaching a future estimated date or age. At the final date of retirement of the property, all units comprising the piece of property as of that date are retired at once.

The average service life for this type of account is calculated using the lifespan method. This is sometimes referred to as the forecast method because the lives of units in these categories can be judged with some degree of certainty based on a future retirement date. This method is used only for relatively large, easily identifiable pieces of property.

Q. Which classes of water utility plant may be appropriately studied under this method?

A. Water treatment structures and equipment and related intake strucuures such as the St. Joseph water treatment plant which is scheduled for retirement in 2001.

Q. What is the other method you used to determine average service lives?

A. The retirement rate method, also known as the survivor curve method.

Q. To which accounts is this method applicable?

A. Most of the plant consisting of many relatively small but easily identifiable items. While these "mass" property units are similar to one another, the life of each item is not dependent upon the lives of the others. Any "mass" property accounts for which sufficient vintage accounting records are available may be studied using the retirement rate

method. The data available must include the original cost of plant additions by vintage; and, either all subsequent retirement amounts for every vintage by year, or surviving dollar amounts for every vintage by year to the current time. The survivor curve method is typically applied to water main, water meter and fire hydrant accounts.

Q. Please discuss the application of the survivor curve method.

A. The survivor curve method is a study of mortality data by actuarial methods. It is a statistical method in which the underlying assumption is that if history does tend to repeat itself, the service life of the new unit will be reflected in the history of the retired units.

Historical mortality data for an account is plotted and the resultant curve representing dollars surviving is compared to the known shape of a set of Iowa curves. The purpose of this study is to generalize the attrition of units of physical property into curves representing expected trends by the Iowa curves.

The area calculated under the chosen Iowa curve is the average service life.

Q. For those accounts for which you employed the survivor curve method, on what information did you base your average service life calculations?

A. The Company furnished historical data through year end 1995 which enumerates plant additions, retirements, and adjustments for each vintage by plant account. In discussions with Mr. McKitrick, it was indicated that the pre-1956 records were considered questionable for proper vintage and retirement accounting, these records were therefore generally ignored in analysis.

SUMMARY

Q. Would you please summarize your testimony?

A. My testimony describes the methods used to review the depreciation rates,

reserve balances, and underlying life and salvage parameters for the Company's plant property.

I recommend that the Commission make no changes to currently approved depreciation rates. The Company should be ordered to initiate a ten year amortization for the St. Joseph water treatment plant of $396,437 per year beginning on the effective date of the final Report and Order in this case.

Q. Does this conclude your testimony?

A. Yes, it does.

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the matter of Missouri-American Water Company's Tariff Designed to Increase Rates for Water Service Provided To Customers in the Missouri Service Area of the Company.	)	Case No. WR-97-237 et al.

AFFIDAVIT OF WOODIE C. SMITH

STATE OF MISSOURI)
) ss
COUNTY OF COLE)

Woodie C. Smith, of lawful age, on his oath states: that he has participated in the preparation of the foregoing written testimony in question and answer form; consisting of 10 pages to be presented in this case; that the answers in the foregoing 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.

Woodie C. Smith

Woodie C. Smith

Subscribed and sworn to before me this 28th day of MAY, 1997.

Beverly S. Lehmen

Notary Public

My commission expires

BEVERLY S LEHMEN
NOTARY PUBLIC STATE OF MISSOURI
CALLAWAY COUNTY
MY COMMISSION EXP. MAR. 9,1998