PAWC Statement No. 5

BEFORE THE
PENNSYLVANIA PUBLIC UTILITY COMMISSION

DIRECT TESTIMONY OF
JOHN J. SPANOS

ON BEHALF OF
PENNSYLVANIA-AMERICAN WATER COMPANY

CLAYSVILLE WASTEWATER OPERATIONS

DEPRECIATION

DOCKET NO. R-2010-21166210

April 2010

BEFORE THE PENNSYLVANIA PUBLIC UTILITY COMMISSION

RE: PENNSYLVANIA-AMERICAN WATER COMPANY

DIRECT TESTIMONY OF JOHN J. SPANOS

Q. Please state your name and address.

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

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 2010.

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., who was the President of Gannett Fleming Valuation and Rate Consultants, Inc. at that time.

In January 1996, I was assigned to the position of Supervisor of Depreciation Studies. In July 1999, I was promoted to the position of Manger, 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. 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 and Entergy Gulf States Louisiana. 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. Have you submitted testimony to any state, federal or provincial utility commissions on the subject of utility plant depreciation?

A. Yes. I have submitted testimony to the Pennsylvania Public Utility Commission; the Commonwealth of Kentucky Public Service Commission; the Public Utilities Commission of Ohio; the Nevada Public Utility Commission; the Public Utilities Board of New Jersey; the Missouri Public Service Commission; the Massachusetts Department of Telecommunications and Energy; the Alberta Energy & Utility Board; the Idaho Public Utility Commission; the Louisiana Public Service Commission; the State Corporation Commission of Kansas; the Oklahoma Corporate Commission; the Public Service Commission of South Carolina; the Railroad Commission of Texas – Gas Services Division; the New York Public Service Commission; the Illinois Commerce Commission; the Indiana Utility Regulatory Commission; the

California Public Utilities Commission; the Federal Energy Regulatory Commission ("FERC"); the Arkansas Public Service Commission; the Public Utility Commission of Texas; the Maryland Public Service Commission; the Washington Utilities and Transportation Commission; the Tennessee Regulatory Commission; the District of Columbia Public Service Commission; the Mississippi Public Service Commission; the Regulatory Commission of Alaska; and the North Carolina Utilities Commission.

Q. What is the extent of your formal instruction with respect to utility plant depreciation?

I have completed the "Techniques of Life Analysis", "Techniques of Salvage and Depreciation Analysis", "Forecasting Life and Salvage", "Modeling and Life Analysis Using Simulation" and "Managing a Depreciation Study" programs conducted by Depreciation Programs, Inc. Also, I have completed the "Introduction to Public Utility Accounting" program conducted by the American Gas Association.

Q. What is the purpose of your testimony?

A. I was asked by Pennsylvania-American Water Company to prepare depreciation studies with regards to plant in service as of December 31, 2009 and as of December 31, 2010 for its Claysville Wastewater Operations.

Q. Have you prepared exhibits presenting the results of your studies?

A. Yes. Exhibit No. 5-A presents the results of the depreciation study as of December 31, 2009. Exhibit No 5-B presents the results of the depreciation study as of December 31, 2010.

Q. Please describe Exhibits No. 5-A and 5-B.

A. Exhibit No. 5-A, titled "Depreciation Study of Claysville Wastewater Operations - Calculated Annual Depreciation Accruals Related to Utility Plant in Service at December 31, 2009," includes the results of the depreciation study as related to the original cost at December 31, 2009. The report also includes the detailed depreciation calculations. Exhibit No. 5-B, titled "Depreciation Study of Claysville Wastewater Operations - Calculated Annual Depreciation Accruals Related to Utility Plant in Service at December 31, 2010," includes the results of the depreciation study as related to the estimated original cost at December 31, 2010. The report also includes explanatory text, statistics related to the estimation of service life, and the detailed depreciation calculations.

Q. What was the purpose of your depreciation study?

A. The purpose of the depreciation study was to estimate the annual depreciation accruals related to utility plant in service for ratemaking purposes and, using Commission-approved procedures, to estimate Pennsylvania-American Water Company's book reserve at December 31, 2010.

Q. Is Pennsylvania-American Water Company's claim for annual depreciation for the Claysville Wastewater Operations in this proceeding based on the same method of depreciation as was used in its most recent Coatesville wastewater rate proceeding in Docket No. R-2008-2032689.

A. Yes, it is. For most plant accounts, the current claim for annual depreciation is based on the straight line remaining life method of depreciation. For Accounts 389.1, 394 and 396, the claim is based on the straight line remaining life method of amortization. The annual amortization is based on

amortization accounting which distributes the unrecovered cost of fixed capital assets over the remaining amortization period selected for each account.

Q. What group procedure is being used in this proceeding for depreciable accounts?

A. The equal life group procedure is used in the current proceeding for all depreciable accounts and installation years. The equal life group procedure for all vintages has also been used in this same manner in the Company's last five water rate proceedings.

Q. Is Pennsylvania-American Water Company's claim for accrued depreciation in the current proceeding made on the same basis as has been used by the Company in other rate proceedings?

A. Yes. The current claim for accrued depreciation has been made on the same basis for over seventeen years for water assets and for other wastewater assets owned by Pennsylvania American Water Company. The book reserve has been brought forward from the original cost study associated with the acquisition of the Claysville Wastewater Operations by Pennsylvania American Water Company, approved by the Commission.

Q. How was the book reserve used in the calculation of annual depreciation?

A. The book reserve was allocated by account and then to vintages to determine original cost less accrued depreciation by vintage. The total annual accrual is the sum of the results of dividing the original costs less accrued depreciation by the vintage composite remaining lives.

Q. How was the book reserve at December 31, 2010 estimated?

A. The book reserve at December 31, 2010, by account, was projected by adding estimated accruals and salvage and subtracting estimated retirements and cost of removal from the book reserve at December 31, 2009. Annual accruals were estimated using the annual accruals calculated as of December 31, 2009. For most accounts, salvage and cost of removal were estimated by (1) expressing actual salvage and cost of removal as a percent of retirements by account, and (2) applying those percents to the projected retirements by account. The projected book reserve by account was allocated to vintages for the purpose of the annual accrual calculation based on calculated accrued depreciation at December 31, 2010.

Q. Has a service life study of Pennsylvania-American Water Company's wastewater utility property been performed?

A. Yes. A service life study was performed through 2009. The service life study is the basis for the service lives I used to calculate annual accruals.

Q. Briefly outline the procedure used in performing the service life study.

A. The service life study consisted of assembling and compiling historical data from the records related to the wastewater utility plant of Pennsylvania-American Water Company's Coatesville, Northeast, Clarion and Claysville Wastewater Operations; statistically analyzing such data to obtain historical trends of survivor characteristics; obtaining supplementary information from management and operating personnel concerning Company practices and plans as they relate to plant operations; and interpreting the above data to form judgments of service life characteristics.

Iowa type survivor curves were used to describe the estimated survivor characteristics of the mass property groups. Individual service lives were used for major individual units of plant, such as the treatment plant. The life span concept was recognized by coordinating the lives of associated plant installed in subsequent years with the probable retirement date defined by the life estimated for the major unit.

Q. What statistical data were employed in the historical analyses performed for the purpose of estimating service life characteristics?

A. The data consisted of the entries made to record retirements and other transactions related to the wastewater plant during the period 2001-2009. These entries were classified by depreciable group, type of transaction, the year in which the transaction took place, and the year in which the plant was installed. Types of transactions included in the data were plant additions, retirements, transfers, acquisitions, and balances.

Q. What was the source of these data?

A. They were assembled from Company records related to its utility plant in service and original cost studies performed at acquisition.

Q. Were the methods used in the service life study the same as those used in other depreciation studies for water or wastewater utility plant presented before this Commission?

A. Yes. The methods are the same ones that have been presented previously for a number of water and wastewater companies, including Pennsylvania-American Water Company's water and wastewater operations, before the

Pennsylvania Public Utility Commission and that have been accepted by the Commission in its past orders concerning water and wastewater utilities.

Q. Are the factors considered in your estimates of service life presented in Exhibit No. 5-B?

A. Yes. A discussion of the factors considered in the estimation of service lives is presented by account on pages I-3 through I-5 of Exhibit No. 5-B.

Q. Please outline the contents of Exhibit No. 5-B.

A. Exhibit No. 5-B is presented in two parts. Part I, Methods Used in Study, includes an introduction; the estimation of survivor curves and the calculation of annual depreciation; and an explanation of the manner in which net salvage was incorporated in the calculations.

Part II, Results of Study, presents a description of the results, summaries of the depreciation calculations, graphs and tables which relate to the service life study, and the detailed depreciation calculations.

Table 1, page II-4, presents the estimated survivor curve, the net original cost at December 31, 2010, and the book reserve and calculated annual depreciation for each account or subaccount of Utility Plant. Table 2, page II-5, presents the bringforward to December 31, 2010, of the book depreciation reserve as of December 31, 2009. Table 3 on page II-6 sets forth the calculation of the annual accruals used in the bringforward. Table 4, page II-7, presents the experienced and estimated net salvage during the five-year period, 2006 through 2010.

The section beginning on page II-8 presents the results of the retirement rate analyses prepared as the historical bases for the service life

estimates. The section beginning on page II-42 presents the depreciation calculations related to original cost. The tabulations on pages II-44 through II-58 present the calculation of annual depreciation by vintage by account for each depreciable group of utility plant. The tabulation on page II-60 presents the retirements, salvage, and cost of removal by account for 2010.

Q. Please outline the contents of Exhibit No. 5-A.

A. Exhibit No. 5-A includes a description of the results, summaries of the depreciation calculations, and the detailed depreciation calculations as of December 31, 2009. The descriptions and explanations presented in Exhibit No. 5-B are also applicable to the depreciation calculations presented in Exhibit No. 5-A. The graphs and tables related to service life presented in Exhibit No. 5-B also support the service life estimates used in Exhibit No. 5-A, inasmuch as the estimates are the same for both test years. The summary tables and detailed depreciation calculations as of December 31, 2009, are organized and presented in the same manner as those as of December 31, 2010.

Q. Please use an example to illustrate the manner in which the study is presented in Exhibits No. 5-A and 5-B.

A. I will use Account 361.10, Collection Sewer Mains, as my example, inasmuch as it is the largest depreciable group and represents 32 percent of the original cost of depreciable utility plant as of December 31, 2010.

The retirement rate method was used to analyze the survivor characteristics of this group. The life table for the 2001-2009 experience band is presented on pages II-23 through II-25 of Exhibit No. 5-B. The life

table, or original survivor curve, is plotted along with the estimated smooth survivor curve, the 65-S1.5, on page II-22.

The calculation of the annual depreciation related to the original cost at December 31, 2009, of utility plant is presented on page 11 of Exhibit No. 5-A. The calculation is based on the 65-S1.5 survivor curve, the attained age, and the allocated book reserve. The calculation at December 31, 2010 is presented on page II-49 of Exhibit No. 5-B and is based in part on the bringforward of the book reserve. The tabulations in Exhibits 5-A and 5-B set forth the installation year, the original cost, calculated accrued depreciation, allocated book reserve, future accruals, remaining life and annual accrual. The totals are brought forward to Table 1 on page 3 in Exhibit No. 5-A and on page II-4 in Exhibit No. 5-B.

Q. Do the exhibits exclude the original cost of certain plant?

A. Yes. The amounts received from customers as advances or contributions have been excluded from the original cost used in the study. The original cost excluded by account for customer advances or contributions is set forth in the detailed depreciation calculations of Exhibit No. 5-A and 5-B. The amounts are designated with a 9999 vintage.

Q. In what manner is net salvage incorporated in the depreciation calculations?

A. As stated on page I-9 of Exhibit No. 5-B, no adjustment for net salvage was made to the calculated annual depreciation amounts. The total calculated annual depreciation set forth on page II-7 of Exhibit No. 5-B reflects an addition for the amortization of negative net salvage in accordance with the practice of this Commission. The amortization is based on experience during

the period 2006 through December 31, 2009, plus estimates for the year 2010 for the calculation as of December 31, 2010. The detail by plant account of regular retirements, salvage, and cost of removal for 2010 is presented on page II-60 of Exhibit No. 5-B. The total is brought forward to Table 4 on page II-7 of Exhibit No. 5-B in which the amounts of the five-year amortization is calculated.

Q. Does this complete your testimony at this time?

A. Yes, it does.