Exhibit No.:	
Issue:	Depreciation Study
Witness:	John J. Spanos
Type of Exhibit:	Direct Testimony
Sponsoring Party:	KCP&L Greater Missouri Operations Company
Case No.:	ER-2010-____
Date Testimony Prepared:	June 4, 2010

MISSOURI PUBLIC SERVICE COMMISSION

CASE NO.: ER-2010-____

DIRECT TESTIMONY

OF

JOHN J. SPANOS

ON BEHALF OF

KCP&L GREATER MISSOURI OPERATIONS COMPANY

Kansas City, Missouri
June 2010

DIRECT TESTIMONY

OF

JOHN J. SPANOS

Case No. ER-2010-____

Q. Please state your name and business address.

A. John J. Spanos, 207 Senate Avenue, Camp Hill, Pennsylvania, 17011.

Q. On whose behalf are you testifying?

A. I have been retained by Kansas City Power & Light Company ("KCP&L") to testify on behalf of KCP&L Greater Missouri Operations Company ("GMO" or the "Company").

Q. Please state your educational background and describe your professional training and experience.

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. By whom and in what capacity have you been employed?

A. I am employed by Gannett Fleming as Vice President of the Valuation and Rate Division, which provides depreciation consulting services to utility companies in the United States and Canada. I am responsible for conducting depreciation, valuation and original cost studies, determining service life and salvage estimates, conducting field reviews, presenting recommended depreciation rates to clients, and supporting such rates before state and federal regulatory agencies. I have been associated with the firm since college graduation in 1986.

Q. Do you belong to 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. Do you hold any special certification as a depreciation expert?

A. Yes. The Society of Depreciation Professionals has established national standards for depreciation professionals. The Society administers an examination to become certified in this field. I passed the certification exam in September 1997, and was recertified in August 2003 and February 2008.

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

A. Yes. A synopsis of my depreciation experience is set forth in Appendix A.

Q. Have you received any additional education relating to utility plant depreciation?

A. Yes. I have completed the following courses conducted by Depreciation Programs, Inc.: "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." I have also completed the "Introduction to Public Utility Accounting" program conducted by the American Gas Association.

Q. Have you previously testified on public utility ratemaking matters?

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; Railroad Commission of Texas – Gas Services Division; the New York Public Service Commission; 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; District of Columbia, Delaware Public Service Commission, Maryland Public Service Commission; Washington Utilities and Transportation Commission; the Tennessee Regulatory Commission; the Regulatory Commission of Alaska; and the North Carolina Utilities Commission.

Q. What is the purpose of your testimony?

A. I am sponsoring Schedules JJS2010-1, JJS2010-2, and JJS2010-3 stating the results of my depreciation studies for GMO electric plant as of December 31, 2008 (the "2008 Depreciation Studies" or "Depreciation Studies"). I am also sponsoring Schedule JJS2010-4 which are future depreciation rates for Iatan Unit 2.

Q. Would you please summarize your testimony?

A. My testimony will explain the methods and procedures of the Depreciation Studies and set forth the annual depreciation rates as of December 31, 2008. Schedules JJS2010-1, JJS2010-2, and JJS2010-3 contain the reports which set forth detailed methods, procedures and results of the Depreciation Studies as of December 31, 2008. These reports will be explained in Part II of my testimony.

Q. What are the principal conclusions of your studies and the bases for them?

A. The principal conclusions of the studies are depreciation accrual rates by account for GMO. Overall, the proposed rates are determined based on the remaining life method and the utilization of the life span procedure for production facilities. The average service lives and net salvage percents for transmission and distribution accounts are generally the same.

Q. Please describe the contents of your reports.

A. My reports are presented in three parts. Part I, Introduction, presents the scope and basis for the Depreciation Study. Part II, Methods Used in the Estimation of Depreciation, includes descriptions of the basis of the study, the estimation of survivor curves and net salvage and the calculation of annual and accrued depreciation. Part III, Results of Study, presents a description of the results, summary of the depreciation calculations, graphs and tables that relate to the service life and net salvage analyses, and the detailed depreciation calculations.

Schedule JJS2010-1 represents the results for GMO – MPS Jurisdiction. The table on pages III-4 through III-9 of the report presents the estimated survivor curve, the net salvage percent, the original cost as of December 31, 2008, the book reserve and the calculated annual depreciation accrual and rate for each account or subaccount. The section beginning on page III-10 of the report presents the results of the retirement rate analyses prepared as the historical bases for the service life estimates. The section beginning on page III-198 of Schedule JJS2010-1 presents the results of the salvage analysis. The section beginning on page III-250 of Schedule JJS2010-1 presents the depreciation calculations related to surviving original cost as of December 31, 2008.

Similarly, Schedule JJS2010-2 sets forth the results for GMO – L&P Jurisdiction, and Schedule JJS2010-3 sets forth the results for GMO – ECORP. Each of these reports are organized in the same fashion.

II. METHODS USED IN DEPRECIATION STUDY

Q. Please define the concept of depreciation.

A. Depreciation refers to the loss in service value not restored by current maintenance, incurred in connection with the consumption or prospective retirement of utility plant in the course of service from causes that can be reasonably anticipated or contemplated, against which the Company is not protected by insurance. Among the causes to be given consideration are wear and tear, decay, action of the elements, inadequacy, obsolescence, changes in the art, changes in demand and the requirements of public authorities.

Q. In preparing the depreciation studies, did you follow generally accepted practices in the field of depreciation and valuation?

A Yes.

Q. Please identify the depreciation method that you used.

A. I used the straight line remaining life method of depreciation, with the average service life procedure. This method reflects a change from how rates were adopted for GMO, the last time depreciation was reviewed. This method of depreciation aims to distribute the unrecovered cost of fixed capital assets over the estimated remaining useful life of each unit or group of assets in a systematic and rational manner.

Q. What are your recommended annual depreciation accrual rates for GMO?

A. My recommended annual depreciation accrual rates as of December 31, 2008 are set forth on pages III-4 through III-9 of Schedule JJS2010-1 for MPS Jurisdiction, pages

III-4 through III-8 of Schedule JJS2010-2 for L&P Jurisdiction, and page III-4 of Schedule JJS2010-3 for ECORP.

Q. How did you determine the recommended annual depreciation accrual rates?

A. I did this in two phases. In the first phase, I estimated the service life and net salvage characteristics for each depreciable group, that is, each plant account or subaccount identified as having similar characteristics. In the second phase, I calculated the composite remaining lives and annual depreciation accrual rates based on the service life and net salvage estimates determined in the first phase.

Q. Please describe the first phase of the depreciation studies, in which you estimated the service life and net salvage characteristics for each depreciable group.

A. The service life and net salvage studies consisted of compiling historic data from records related to GMO's plant; analyzing these data to obtain historic trends of survivor and net salvage characteristics; obtaining supplementary information from management, and operating personnel concerning practices and plans as they relate to plant operations; and interpreting the above data and the estimates used by other electric utilities to form judgments of average service life and net salvage characteristics**.**

Q. What historic data did you analyze for the purpose of estimating service life characteristics?

A. Each jurisdiction had a different range of historical data available to analyze. Therefore, I analyzed the Company’s accounting entries that record plant transactions during the periods 1960 through 2008 for the MPS Jurisdiction, 1979 through 2008 for the L&P Jurisdiction, and 1999 through 2008 for ECORP. The transactions

included additions, retirements, transfers and the related balances. The Company records also included surviving dollar value by year installed for each plant account as of December 31, 2008.

Q. What method did you use to analyze this service life data?

A. I used the retirement rate method for all accounts. This is the most appropriate method when aged retirement data are available, because this method determines the average rates of retirement actually experienced by the Company during the period covered by the study.

Q. Would you explain how you used the retirement rate method to analyze GMO's service life data?

A. I applied the retirement rate method to each different group of property in the study. For each property group, I used the retirement rate method to form a life table which, when plotted, shows an original survivor curve for that property group. Each original survivor curve represents the average survivor pattern experienced by the several vintage groups during the experience band studied. The survivor patterns do not necessarily describe the life characteristics of the property group; therefore, interpretation of the original survivor curves is required in order to use them as valid considerations in estimating service life. The Iowa-type survivor curves were used to perform these interpretations.

Q. What is an "Iowa-type survivor curve" and how did you use such curves to estimate the service life characteristics for each property group?

A. Iowa-type curves are a widely used group of generalized survivor curves that contain the range of survivor characteristics usually experienced by utilities and other industrial companies. The Iowa curves were developed at the Iowa State College

Engineering Experiment Station through an extensive process of observing and classifying the ages at which various types of property used by utilities and other industrial companies had been retired.

Iowa-type curves are used to smooth and extrapolate original survivor curves determined by the retirement rate method. The Iowa curves and truncated Iowa curves were used in this study to describe the forecasted rates of retirement based on the observed rates of retirement and the outlook for future retirements. As I will explain, the use of truncated curves is appropriate to reflect retirements of plant components that may not be fully depreciated at the time a plant is retired.

The estimated survivor curve designations for each depreciable property group indicate the average service life, the family within the Iowa system to which the property group belongs, and the relative height of the mode. For example, the Iowa 35-R2 indicates an average service life of thirty-five years; a right-moded, or R, type curve (the mode occurs after average life for right-moded curves); and a moderate height, 2, for the mode (possible modes for R type curves range from 1 to 5).

Q. What approach did you use to estimate the lives of significant facilities structures such as production plants?

A. I used the life span technique to estimate the lives of significant facilities for which concurrent retirement of the entire facility is anticipated. In this technique, the survivor characteristics of such facilities are described by the use of interim survivor curves and estimated probable retirement dates.

The interim survivor curves describe the rate of retirement related to the replacement of elements of the facility, such as, for a building, the retirements of

plumbing, heating, doors, windows, roofs, etc., that occur during the life of the facility. The probable retirement date provides the rate of final retirement for each year of installation for the facility by truncating the interim survivor curve for each installation year at its attained age at the date of probable retirement. The use of interim survivor curves truncated at the date of probable retirement provides a consistent method for estimating the lives of the several years of installation for a particular facility inasmuch as a single concurrent retirement for all years of installation will occur when it is retired.

Q. Has Gannett Fleming used this approach in other proceedings?

A. Yes, we have used the life span technique in performing depreciation studies presented to and accepted by many public utility commissions across the United States and Canada.

Q. What are the bases for the probable retirement years that you have estimated for each facility?

A. The bases for the probable retirement years are life spans for each facility that are based on judgment and incorporate consideration of the age, use, size, nature of construction, management outlook and typical life spans experienced and used by other electric utilities for similar facilities. Most of the life spans result in probable retirement years that are many years in the future. As a result, the retirements of these facilities are not yet subject to specific management plans. Such plans would be premature. At the appropriate time, detailed studies of the economics of rehabilitation and continued use or retirement of the structure will be performed and the results incorporated in the estimation of the facility's life span.

Q. Did you physically observe GMO's plants and equipment as part of your depreciation study?

A. Yes. I made a field review of GMO's property on August 17-19, 2009 to observe representative portions of plant. Field reviews are conducted to become familiar with Company operations and obtain an understanding of the function of the plant and information with respect to the reasons for past retirements and the expected future causes of retirements. This knowledge, as well as information from other discussions with management, was incorporated in the interpretation and extrapolation of the statistical analyses.

Q. How did your experience in development of other depreciation studies affect your work in this case?

A. Because I customarily conduct field reviews for my depreciation studies, I have had the opportunity to visit scores of similar plants and meet with operations personnel at other companies. The knowledge accumulated from those visits and meetings provide me useful information that I can draw on to confirm or challenge my numerical analyses concerning plant condition and remaining life estimates.

Q. Would you please explain the concept of "net salvage"?

A. Net salvage is a component of the service value of capital assets that is recovered through depreciation rates. The service value of an asset is its original cost less its net salvage. Net salvage is the salvage value received for the asset upon retirement less the cost to retire the asset. When the cost to retire exceeds the salvage value, the result is negative net salvage.

Inasmuch as depreciation expense is the loss in service value of an asset during a defined period, *e.g.*, one year, it must include a ratable portion of both the

original cost and the net salvage. That is, the net salvage related to an asset should be incorporated in the cost of service during the same period as its original cost so that customers receiving service from the asset pay rates that include a portion of both elements of the asset's service value, the original cost and the net salvage value.

For example, the full recovery of the service value of a $500 line transformer will include not only the $500 of original cost, but also, on average, $100 to remove the transformer at the end of its life and $25 in salvage value. In this example, the net salvage component is negative $75 ($25 - $100), and the net salvage percent is negative 15% (($25 - $75)/$500).

Q. Please describe how you estimated net salvage percentages.

A. Each jurisdiction had a different range of historical data available to analyze, therefore, I estimated the net salvage percentages based on judgment that, for most accounts, incorporated analyses of the historical data for the period 1985 through 2008 for MPS jurisdiction, 1980 through 2008 for L&P jurisdiction and 1999 through 2008 for ECORP, and considered estimates for other electric companies. In the historical analyses, the net salvage, cost of removal and gross salvage amounts were expressed as percents of the original cost retired. These percents were calculated on annual and three-year moving average bases for their respective periods of analyses.

Q. Please describe the second phase of the process that you used in the depreciation study in which you calculated composite remaining lives and annual depreciation accrual rates.

A. After I estimated the service life and net salvage characteristics for each depreciable property group, I calculated the annual depreciation accrual rates for each group based on the straight line remaining life method, using remaining lives weighted

consistent with the average service life procedure. The annual depreciation accrual rates were developed as of December 31, 2008.

Q. Please describe the straight line remaining life method of depreciation.

A. The straight line remaining life method of depreciation allocates the original cost of the property, less accumulated depreciation, less future net salvage, in equal amounts to each year of remaining service life.

Q. Please describe the average service life procedure for calculating remaining life accrual rates.

A. The average service life procedure defines the group for which the remaining life annual accrual is determined. Under this procedure, the annual accrual rate is determined for the entire group or account based on its average remaining life and this rate is applied to the surviving balance of the group's cost. The average remaining life of the group is calculated by first dividing the future book accruals (original cost less allocated book reserve less future net salvage) by the average remaining life for each vintage. The average remaining life for each vintage is derived from the area under the survivor curve between the attained age of the vintage and the maximum age. Then, the sum of the future book accruals is divided by the sum of the annual accruals to determine the average remaining life of the entire group for use in calculating the annual depreciation accrual rate.

Q. Please use an example to illustrate the development of the annual depreciation accrual rate for a particular group of property in your depreciation studies.

A. I will use MPS jurisdiction Account 368.00, Line Transformers, as an example because it is one of the largest depreciable groups and represents approximately nine percent of depreciable plant for MPS Jurisdiction.

The retirement rate method was used to analyze the survivor characteristics of this property group. Aged plant accounting data were compiled from 1960 through 2008 and analyzed for periods that best represent the overall service life of this property. The life table for the 1960-2008 experience band is presented on pages III-143 and III-144 of Schedule JJS2010-1. The life table displays the retirement and surviving ratios of the aged plant data exposed to retirement by age interval. For example, page III-143 shows $975,957 retired during age interval 0.5-1.5 with $155,600,728 exposed to retirement at the beginning of the interval. Consequently, the retirement ratio is 0.0063 ($975,957/$155,600,728) and the surviving ratio is 0.9937 (1-.0063). The percent surviving at age 0.5 of .9937 percent is multiplied by the survivor ratio of 99.43 to derive the percent surviving at age 1.5 of 98.80 percent. This process continues for the remaining age intervals for which plant was exposed to retirement during the period 1960-2008. The resultant life table, or original survivor curve, is plotted along with the estimated smooth survivor curve, the 35-R2 on page III-142.

The net salvage percent is presented on pages III-234 and III-235 of Schedule JJS2010-1. The percentage is based on the result of annual gross salvage minus the cost to remove plant assets as compared to the original cost of plant retired during the period 1985 through 2008. The 24-year period experienced negative $2,393,883 ($2,046,476 – $4,440,359) in net salvage for $17,722,613 plant retired. The result is negative net salvage of 14 percent ($2,393,883/$17,722,613); however, the most recent five-year period and the rolling three-year averages trend toward negative fifteen and negative eighteen percent, respectively. Therefore, based on the statistics and industry averages, negative fifteen percent was recommended.

My calculation of the annual depreciation related to original cost of MPS jurisdiction Account 368.00, Line Transformers, at December 31, 2008, is presented on pages III-334 and III-335 Schedule JJS2010-1. The calculation is based on the 35-R2 survivor curve, fifteen percent negative net salvage, the attained age, and the allocated book reserve. The tabulation sets forth the installation year, the original cost, calculated accrued depreciation, allocated book reserve, future accruals, remaining life and annual accrual. These totals are brought forward to the table on page III-7.

Q. Have you made any adjustments to the accumulated depreciation amounts prior to developing your depreciation accrual rates?

A. Yes, I have. The reserve adjustments relate to the following: 1) proper amortization rates for general plant accounts, and 2) the proper level of accumulated reserve for ECORP assets.

Q. Please describe amortization accounting.

A. Amortization accounting is used for accounts with a large number of units, but small asset values. In amortization accounting, units of property are capitalized in the same manner as they are in depreciation accounting. However, depreciation accounting is difficult for these assets because periodic inventories are required to properly reflect plant in service. Consequently, retirements are recorded when a vintage is fully amortized rather than as the units are removed from service. That is, there is no dispersion of retirement. All units are retired when the age of the vintage reaches the amortization period. Each plant account or group of assets is assigned a fixed period which represents an anticipated life during which the asset will render service. For example, in amortization accounting, assets that have a 20-year amortization period

will be fully recovered after 20 years of service and taken off the Company books, but not necessarily removed from service. In contrast, assets that are taken out of service before 20 years remain on the books until the amortization period for that vintage has expired.

Q. Amortization accounting is being implemented for which plant accounts?

A. Amortization accounting is only appropriate for certain General Plant accounts. These accounts are 391.01, 391.02, 391.04, 391.06, 393.0, 394.0, 395.0, 397.0, and 398.0, which represents slightly more than three percent of depreciable plant.

Q. Has amortization accounting been accepted by regulatory commissions?

A. Yes, it has. In my experience, amortization accounting has been accepted since the early 1990s by almost every regulatory commission, including in Missouri. The utilization of amortization accounting is established to reduce the effort of keeping track of many small valued assets as well as the future expectations of more constant levels of depreciation.

Q. Please explain the reserve adjustment for general plant.

A. The utilization of the general plant amortization methodology is designed to smooth depreciation expense consistent with capital investment. In order to establish constant rates that are consistent with amortization accounting and the remaining life methodology, the accumulated reserve must be set equal to the theoretical reserve. This is based on the age and amount of the surviving plant in service. However, it is not appropriate to adjust a reserve amount without making proper offsetting amounts to insure only full recovery, no more, no less. Therefore, we have segregated the reserve into two components. The first component is established to produce an amortization rate which will match the amortization period. The positive or negative

excess from the accumulated reserve amount is recovered over a 10-year amortization period separately from the plant in service.

Q. How does this adjustment improve recovery practices?

A. Without this adjustment, general plant amortization accruals could fluctuate drastically based on past recovery patterns. This segregation will establish a constant rate in the future for these accounts and any past under- or over-recovered assets will be recovered equally over the next 10 years.

Q. Can you discuss the reserve allocation for ECORP?

A. The ECORP adjustment relates to the level of accumulated depreciation of the current plant in service. The reserve allocation was established through the review of plant balances as of December 2008. A total of negative $18.8 million accumulated depreciation has been allocated to all the depreciable plant accounts.

Q. Did you establish rates for the assets to be placed into service as of April 2009 for Iatan Unit 1?

A. No. The rates to be used for these assets should be those established in the Depreciation Study since assets for these locations have already existed as of December 3l, 2008.

Q. Are there any other depreciation rates that need to be addressed?

A. Yes, there are. In the very near future the Iatan Unit 2 will be completed and placed into service. These assets should have a depreciation rate in place when they come on-line. Therefore, I have performed a calculation to establish rates for Accounts 311 through 316. These rates are set forth on page III-4 of Schedule JJS2010-3. The rates are based on the same interim survivor curve and net salvage percent as those utilized

for comparable facilities in these accounts for GMO. The specific results by account and the parameters used are set forth in Schedule JJS2010-4.

Q. Does this conclude your testimony?

A. Yes, it does.

BEFORE THE PUBLIC SERVICE COMMISSION
OF THE STATE OF MISSOURI

In the Matter of the Application of KCP&L Greater Missouri Operations Company to Modify Its Electric Tariffs to Effectuate a Rate Increase	)))	Docket No. ER-2010-____

AFFIDAVIT OF JOHN J. SPANOS

COMMONWEALTH OF PENNSYLVANIA)
) **ss**
COUNTY OF CUMBERLAND)

John J. Spanos, being first duly sworn on his oath, states:

1. My name is John J. Spanos. I am employed by Gannett Fleming as Vice President of the Valuation and Rate Division. My services have been retained by Kansas City Power & Light Company.

2. Attached hereto and made a part hereof for all purposes is my Direct Testimony on behalf of KCP&L Greater Missouri Operations Company consisting of Seventeen (17) pages, having been prepared in written form for introduction into evidence in the above-captioned docket.

3. I have knowledge of the matters set forth therein. I hereby swear and affirm that my answers contained in the attached testimony to the questions therein propounded, including any attachments thereto, are true and accurate to the best of my knowledge, information and belief.

John J. Spanos

John J. Spanos

Subscribed and sworn before me this 20th day of May, 2010.

Notary Public

My commission expires: February 20, 2011

COMMONWEALTH OF PENNSYLVANIA
Notarial Seal
Cheryl Ann Rutter, Notary Public
East Pennsboro Twp., Cumberland County
My Commission Expires Feb. 20, 2011
Member, Pennsylvania Association of Notaries

APPENDIX A

JOHN SPANOS

DEPRECIATION EXPERIENCE

In June, 1986, I was employed by Gannett Fleming Valuation and Rate Consultants, Inc. as a Depreciation Analyst. During the period from June, 1986 through December, 1995, I assisted in the preparation of numerous depreciation and original cost studies for utility companies in various industries. I helped perform depreciation studies for the following telephone companies: United Telephone of Pennsylvania, United Telephone of New Jersey and Anchorage Telephone Utility. I helped perform depreciation studies for the following companies in the railroad industry: Union Pacific Railroad, Burlington Northern Railroad and Wisconsin Central Transportation Corporation.

I assisted in the preparation of depreciation studies for the following organizations in the electric industry: Chugach Electric Association, The Cincinnati Gas & Electric Company (CG&E), The Union Light, Heat and Power Company (ULH&P), Northwest Territories Power Corporation and the City of Calgary - Electric System.

I assisted in the preparation of depreciation studies for the following pipeline companies: TransCanada Pipelines Limited, Trans Mountain Pipe Line Company Ltd., Interprovincial Pipe Line Inc., Nova Gas Transmission Limited and Lakehead Pipeline Company.

I assisted in the preparation of depreciation studies for the following gas companies: Columbia Gas of Pennsylvania, Columbia Gas of Maryland, The Peoples Natural Gas Company, T. W. Phillips Gas & Oil Company, CG&E, ULH&P, Lawrenceburg Gas Company and Penn Fuel Gas, Inc.

I assisted in the preparation of depreciation studies for the following water companies: 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.

In each of the above studies, I assembled and analyzed historical and simulated data, performed field reviews, developed preliminary estimates of service life and net salvage, calculated annual depreciation, and prepared reports for submission to state Public Utility Commissions or federal regulatory agencies. I performed these studies under the general direction of William M. Stout, P.E.

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 present 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 conducting depreciation, valuation and original cost studies, including the preparation of final exhibits and responses to data requests for submission to the appropriate regulatory bodies.

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; SCANA, Inc.; 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.; 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; Artesian Water Company, Potomac Electric Power Company, 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; Duke Energy Carolinas; 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. and B. C. Gas Utility, Ltd. 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.