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|---|---|
| **Exhibit No.:** | |
| **Issue:** | **Depreciation** |
| **Witness:** | **John J. Spanos** |
| **Type of Exhibit:** | **Direct Testimony** |
| **Sponsoring Party:** | **Laclede Gas Company** |
| **Case No.:** | **GR-2010-** |
| **Date Testimony Prepared:** | **December 4, 2009** |

# LACLEDE GAS COMPANY

## GR-2010-

## DIRECT TESTIMONY

## OF

## JOHN J. SPANOS

DIRECT TESTIMONY OF
JOHN J. SPANOS

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## I. 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, 17011.

**Q. Are you associated with any firm?**

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

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

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

**Q. What is your position with the firm?**

A. I am Vice President of its 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.

**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. 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. Please 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 through December 1995, I assisted in the preparation of numerous depreciation and original cost studies for utility companies in various industries.

In each of these 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. My additional duties include determining final life and salvage estimates, conducting field reviews and presenting recommended depreciation rates to management for their consideration.

**Q. In total, how many depreciation studies have you performed during your career.**

A. I have conducted hundreds of depreciation studies during my career for various companies in the electric, natural gas, water, telephone, pipeline and railroad industries. A list of these companies is attached to my direct testimony.

**Q. Have you submitted testimony to any regulatory 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; 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; 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 in this proceeding?**

**A.** My testimony is in support of the depreciation study conducted under my supervision and direction for Laclede Gas Company. Based upon the study, I am recommending that new depreciation accrual rates be adopted by the Company and approved by the Commission.

## II. OVERVIEW

**Q. Please describe what you mean by the term "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 which 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. Please explain the term "service value".**

A. "Service value" is the original cost of an asset, less the net salvage value of the asset. The net salvage value is the gross salvage value minus the cost of removal or cost to retire the asset. For many types of property used in the utility industry, the net salvage value is negative, meaning that the cost to retire the asset exceeds any residual salvage value.

**Q. What is the primary goal of establishing depreciation accrual rates?**

A. Depreciation accrual rates are established and used to allocate, for accounting purposes, the cost of assets, including the cost to retire them, over their service lives. The total annual depreciation derived from the establishment of such rates is based on a system of depreciation accounting which aims to distribute the cost of fixed capital assets over the estimated useful life of the unit, or group of assets, in a systematic and rational manner.

**Q. What method did you use to derive your recommended accrual depreciation rates in this case?**

A. In the study that I performed for purposes of preparing my testimony, I used the straight line whole life method of depreciation, with the average service life procedure to develop recommended depreciation accrual rates. In

addition, I calculated the amount required to amortize the variance between the book depreciation reserve and the calculated accrued depreciation or "theoretical reserve".

For General Plant Accounts 391.1, 391.2, 391.3, 393, 394, 395, 397 and 398; I provisionally used the straight line 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 and vintage.

**Q. Have you prepared a report presenting the results of your study?**

A. I have set forth the results of my current calculations in three tables which are identified as Schedule JJS-1 through Schedule JJS-3. A supplemental report based on additional analysis will be completed and submitted in the near future.

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

A. The determination of annual depreciation accrual rates consists of two phases. In the first phase, service life and net salvage characteristics are estimated for each depreciable group, that is, each plant account or subaccount identified as having similar characteristics. In the second phase, the annual depreciation accrual rates and accrued depreciation are calculated based on the service life and net salvage estimates determined in the first phase.

## III. ESTIMATION OF SERVICE LIFE AND NET SALVAGE

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

A. The service life and net salvage study consisted of compiling historical data from records related to the Company's plant; analyzing these data to obtain historical trends of survivor and salvage characteristics; obtaining supplementary information from management and operating personnel concerning the Company's practices and plans as they relate to plant operations; and interpreting the above data to form judgments of average service life and net salvage characteristics.

**Q. What historical data did you analyze for the purpose of estimating the service life characteristics of the Company's plant?**

A. Schedules JJS-1 through JJS-3 are supported by data consisting of the entries made by the Company to record plant transactions through 2003. The transactions included additions, retirements, transfers and the related balances. The Company, in accordance with my instructions, classified the data by depreciable group, type of transaction, the year in which the transaction took place, and the year in which the plant was installed.

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

A. I used the retirement rate method. That method is the most appropriate when aged retirement data are available, because it develops the average rates of retirement actually experienced during the period of study. Other

methods of life analysis infer the rates of retirement based on a selected type survivor curve.

**Q. Please describe the results of your use of the retirement rate method.**

A. Each retirement rate analysis resulted in a life table which, when plotted, formed an original survivor curve. Each original survivor curve as plotted from the life table represents the average survivor pattern experienced by the several vintage groups during the experience band studied. Inasmuch as this survivor pattern does not necessarily describe the life characteristics of the property group, interpretation of the original curves is required in order to use them as valid considerations in service life estimation. Iowa type survivor curves were used in these interpretations.

**Q. Please explain briefly what an "Iowa-type survivor curve" is and how you use it in estimating service life characteristics for each depreciable group.**

A. The range of survivor characteristics usually experienced by utility and industrial properties is encompassed by a system of generalized survivor curves known as the Iowa type curves. The Iowa curves were developed at the Iowa State College Engineering Experiment Station through an extensive process of observation and classification of the ages at which industrial property 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.

The estimated survivor curve designations for each depreciable group indicate the average service life, the family within the Iowa system and the relative height of the mode. For example, the Iowa 40-R2.5 indicates an average service life of forty years; a right-moded, or R, type curve (the mode occurs after average life for right-moded curves); and a moderate height, 2.5, for the mode (possible modes for R type curves range from 1 to 5). The mode of a data set is a type of average. The mode represents the value which appears most frequently in the data set.

**Q. What historical data did you analyze for the purpose of estimating net salvage characteristics?**

A. Schedules JJS-1 through JJS-3 are supported by data consisting of the entries made by the Company to record retirements, cost of removal and gross salvage during the period 1972 through 2003.

**Q. What method did you use to analyze this net salvage data?**

A. The net salvage data were analyzed by expressing the net salvage and its two components, cost of removal and gross salvage, as percents of the original cost retired on annual, three-year moving average and most recent five-year average bases. The use of averages smooths the annual fluctuations and assists in identifying underlying trends.

**Q. Please describe the manner in which you used the analyses of net salvage to estimate net salvage percents.**

A. The results of the net salvage analyses provided indications of historical net salvage levels. The judgments of net salvage incorporated these historical indications and consideration of estimates made for other gas companies.

## IV. CALCULATION OF DEPRECIATION

**Q. Please describe the second phase of the process that you used in which you calculated annual depreciation accrual rates and accrued depreciation.**

A. After I estimated the service life and net salvage characteristics for each depreciable group, I calculated annual depreciation accrual rates and accrued depreciation for each group in accordance with the straight line whole life method, using the average service life procedure.

**Q. Please describe briefly the straight line whole life method of depreciation that you used for depreciable property.**

A. The straight line whole life method of depreciation allocates the original cost less net salvage in equal amounts to each year of service life.

**Q. In what manner do you propose to true-up the difference between the theoretical accrued depreciation that you calculated and the book depreciation reserve recorded on the Company's books?**

A. The difference or variance between the calculated accrued depreciation and the book reserve should be amortized over a fixed time period. I recommend that the variance in this case be amortized over the remaining

service life in each account, however, not to exceed 25 years, commencing with the effective date of customer rates resulting from this proceeding.

**Q. Please describe briefly the amortization of certain General Plant accounts.**

A. General Plant Accounts 391.1, 391.2, 391.3, 393, 394, 395, 397 and 398 include a very large number of units, but represent less than two percent of depreciable utility plant. Depreciation accounting is difficult for these assets, inasmuch as periodic inventories are required to properly reflect plant in service. In amortization accounting, units of property are capitalized in the same manner as they are in depreciation accounting. However, 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.

## V. DESCRIPTION OF SCHEDULES

**Q. Please describe the contents of your schedules.**

A. Schedule JJS-1 presents the estimated survivor curve, and net salvage percents, as analyzed through September 30, 2003, and applied to the original cost as of September 30, 2009 for determining the calculated annual depreciation accrual amount and rate and the calculated accrued depreciation for each account or subaccount. Schedule JJS-2 presents the calculated accrued depreciation, the book depreciation reserve, the unamortized balance of the previously determined variance, and the

variance calculated at September 30, 2009. Schedule JJS-3 sets forth the calculation of the total annual depreciation expense incorporating the whole life annual depreciation accrual and the variance amortization.

## VI. RECOMMENDATION

**Q. What is your recommendation regarding annual depreciation accrual rates for the Company?**

A. I recommend that the Company use and the Commission approve a composite annual depreciation accrual rate for each account or subaccount. My recommended depreciation accrual rates, based on the depreciation study and subject to update, are set forth for each account in column 6 of Schedule JJS-1. I further recommend the amortization of the variance as shown in Column 3 of Schedule JJS-3. In my opinion, these are reasonable and appropriate depreciation accrual rates and amortization amounts for the Company and should be approved by the Commission.

**Q. Are your recommended depreciation accrual rates reasonable for plant added subsequent to September 30, 2009?**

A. Yes. The annual depreciation accrual rates calculated as of September 30, 2009, can reasonably be applied to the total balance including new plant additions during the next several years.

**Q. Does this conclude your direct testimony?**

A. Yes, it does.

**John J. Spanos**
**List of Initial Depreciation Studies**
**Conducted for Each Client**

From 1986 to 1996, I assisted in the preparation of 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.

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; 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; Entergy – Arkansas; Entergy Gulf States Louisiana LLC; Entergy Louisiana LLC; Entergy Mississippi, Inc.; 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.

**BEFORE THE PUBLIC SERVICE COMMISSION**
**OF THE STATE OF MISSOURI**

| | | |
|---|---|---|
| In the Matter of Laclede Gas Company's | ) | |
| Tariff to Revise Natural Gas Rate Schedules | ) | Case No. GR-2010-_____ |

AFFIDAVIT

| | | |
|---|---|---|
| COMMONWEALTH OF PENNSYLVANIA | ) | |
| | ) | SS. |
| COUNTY OF CUMBERLAND | ) | |

John J. Spanos, of lawful age, being first duly sworn, deposes and states:

1. My name is John J. Spanos. My business address is 207 Senate Avenue, Camp Hill, Pennsylvania, 17011; and I am Vice-President of the Valuation and Rate Division of Gannett Fleming, Inc.

2. Attached hereto and made a part hereof for all purposes is my direct testimony on behalf of Laclede Gas Company.

3. I hereby swear and affirm that my answers contained in the attached testimony to the questions therein propounded are true and correct to the best of my knowledge and belief.

John J. Spanos

Subscribed and sworn to before me this 3rd day of December, 2009.

Notary Public

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

SCHEDULE JJS-1

LACLEDE GAS COMPANY

TABLE 1. ESTIMATED SURVIVOR CURVES, NET SALVAGE, ORIGINAL COST, AND
CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO GAS PLANT AT SEPTEMBER 30, 2009

| | Depreciable Group | Survivor Curve | Net Salvage | Original Cost at September 30, 2009 | Calculated Annual Accrual | | Calculated Accrued Depreciation |
|---|---|---|---|---|---|---|---|
| | | | | | Amount | Rate | |
| | (1) | (2) | (3) | (4) | (5) | (6)=(5)/(4) | (7) |
| DEPRECIABLE PLANT | | | | | | | |
| MANUFACTURED GAS PLANT - LPG | | | | | | | |
| 305 | Structures and Improvements | 60-R0.5 | (15) | 1,082,676.00 | 20,793 | 1.92 | 412,000 |
| 307 | Other Power Equipment | 30-R3 | (10) | 159,015.00 | 5,825 | 3.66 | 112,595 |
| 311 | Liquefied Petroleum Gas | | | | | | |
| | Equipment | 33-R1 | (5) | 4,632,069.00 | 147,369 | 3.18 | 1,257,961 |
| | Storage Caverns | 55-S3 | 0 | 4,829,688.00 | 87,900 | 1.82 | 3,022,381 |
| | *Total Account 311* | | | 9,461,757.00 | 235,270 | 2.49 | 4,280,342 |
| | *Total Manufactured Gas Plant - LPG* | | | 10,703,448.00 | 261,887 | | 4,804,937 |
| UNDERGROUND STORAGE PLANT | | | | | | | |
| | Structures and Improvements | | | | | | |
| 351.2 | Compressor Station | 45-S1.5 | (15) | 614,207.00 | 15,681 | 2.55 | 449,508 |
| 351.4 | Other Structures | 55-R1.5 | (10) | 1,000,691.00 | 20,034 | 2.00 | 528,904 |
| | *Total Account 351* | | | 1,614,898.00 | 35,715 | 2.21 | 978,412 |
| 352 | Wells | 90-S2.5 | (10) | 6,128,278.00 | 74,826 | 1.22 | 3,133,321 |
| 352.2 | Reservoirs | 90-S2.5 | (10) | 245,023.00 | 2,992 | 1.22 | 111,341 |
| 352.3 | Non-Recoverable Gas | 90-S2.5 | 0 | 6,167,263.00 | 68,457 | 1.11 | 914,566 |
| 352.4 | Wells - Oil and Vent Gas | 90-S2.5 | (10) | 741,207.00 | 9,050 | 1.22 | 293,004 |
| | *Total account 352* | | | 13,281,771.00 | 155,325 | 1.17 | 4,452,232 |
| 353 | Lines | 70-R2.5 | (20) | 2,885,559.00 | 49,516 | 1.72 | 1,476,454 |
| 354 | Compressor Station Equipment | 55-S2 | (5) | 2,411,310.00 | 46,080 | 1.91 | 1,622,677 |
| 355 | Measuring and Regulating Equipment | 50-S0.5 | 0 | 2,013,702.00 | 40,274 | 2.00 | 1,002,338 |
| 356 | Purification Equipment | 42-R2 | (5) | 233,043.00 | 5,824 | 2.50 | 170,387 |
| 357 | Other Equipment | 20-L2.5 | 0 | 61,691.00 | 3,085 | 5.00 | 28,498 |
| | *Total Underground Storage Plant* | | | 22,501,974.00 | 335,818 | | 9,730,998 |

LACLEDE GAS COMPANY

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CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO GAS PLANT AT SEPTEMBER 30, 2009

| | Depreciable Group | Survivor Curve | Net Salvage | Original Cost at September 30, 2009 | Calculated Annual Accrual | | Calculated Accrued Depreciation |
|---|---|---|---|---|---|---|---|
| | | | | | Amount | Rate | |
| | (1) | (2) | (3) | (4) | (5) | (6)=(5)/(4) | (7) |
| TRANSMISSION PLANT | | | | | | | |
| 367 | Mains | 80-R2 | (20) | 2,013,842.00 | 30,208 | 1.50 | 1,176,164 |
| 371 | Other Equipment | 45-S3 | (5) | 17,180.00 | 400 | 2.33 | 15,495 |
| | *Total Transmission Plant* | | | 2,031,022.00 | 30,608 | | 1,191,659 |
| DISTRIBUTION PLANT | | | | | | | |
| | Structures and Improvements | | | | | | |
| 375 | District Measuring and Regulating | 40-R0.5 | (10) | 246,429.00 | 6,777 | 2.75 | 119,077 |
| | Service Centers | 50-R0.5 | (15) | 8,038,592.00 | 184,725 | 2.30 | 2,658,422 |
| | Garage | 50-S0 | (10) | 659,256.00 | 14,504 | 2.20 | 330,039 |
| | Other Small Structures | 40-R0.5 | 0 | 107,507.00 | 2,688 | 2.50 | 45,568 |
| | *Total Account 375* | | | 9,051,784.00 | 208,694 | 2.31 | 3,153,106 |
| | Mains | | | | | | |
| 376 | Steel | 80-R2 | (20) | 214,772,107.00 | 3,221,582 | 1.50 | 78,748,190 |
| | Cast Iron | 80-S1 | (80) | 14,334,442.00 | 322,525 | 2.25 | 17,308,610 |
| | Plastic and Copper | 70-R3 | (15) | 231,246,343.00 | 3,802,846 | 1.64 | 44,581,027 |
| | *Total Account 376* | | | 460,352,892.00 | 7,346,953 | 1.60 | 140,637,827 |
| 378 | Meas and Reg Equipment - General | 35-O1 | (30) | 9,153,338.00 | 339,147 | 3.71 | 2,852,386 |
| 379 | Meas and Reg Equipment - City Gate | 31-R0.5 | (30) | 2,107,931.00 | 88,512 | 4.20 | 749,332 |
| 380 | Services | | | | | | |
| | Steel | 44-R0.5 | (90) | 38,622,201.00 | 1,665,776 | 4.31 | 33,748,361 |
| | Plastic and Copper | 40-R2.5 | (65) | 450,965,367.00 | 18,602,321 | 4.13 | 204,905,473 |
| | *Total Account 380* | | | 489,587,568.00 | 20,268,097 | 4.14 | 238,653,834 |
| 381 | Meters | 37-S1 | 5 | 118,155,709.00 | 3,030,488 | 2.56 | 36,544,510 |
| 383 | House Regulator | 50-R3 | 0 | 21,532,948.00 | 430,659 | 2.00 | 6,593,858 |
| 385 | Industrial Meas and Reg Equipment | 39-S0 | (10) | 11,353,611.00 | 319,718 | 2.82 | 2,959,206 |
| 386 | Other Property on Customer Premises | 13-L3 | 0 | 22,974.00 | 1,230 | 5.35 | 19,886 |
| 387 | Other Equipment | 30-R0.5 | 0 | 402,259.00 | 13,335 | 3.32 | 142,499 |
| | *Total Distribution Plant* | | | 1,121,721,014.00 | 32,046,833 | | 432,306,444 |

LACLEDE GAS COMPANY

TABLE 1. ESTIMATED SURVIVOR CURVES, NET SALVAGE, ORIGINAL COST, AND
CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO GAS PLANT AT SEPTEMBER 30, 2009

| | Depreciable Group | Survivor Curve | Net Salvage | Original Cost at September 30, 2009 | Calculated Annual Accrual | | Calculated Accrued Depreciation |
|---|---|---|---|---|---|---|---|
| | | | | | Amount | Rate | |
| | (1) | (2) | (3) | (4) | (5) | (6)=(5)/(4) | (7) |
| GENERAL PLANT | | | | | | | |
| 390 | Structures and Improvements - General | 30-S1 | (5) | 502,734.00 | 17,572 | 3.50 | 189,010 |
| 391 | Office Furniture and Equipment | 20-SQ | 0 | 4,971,237.00 | 207,945 | 4.18 | 2,310,225 |
| | Mechanical Office Equipment | 15-SQ | 0 | 346,321.00 | 9,579 | 2.77 | 292,796 |
| | DP Systems | 5-SQ | 0 | 7,702,016.00 | 1,334,131 | 17.32 | 4,537,681 |
| | DP Equipment | 5-SQ | 0 | 1,452,920.00 | 95,030 | 6.54 | 1,284,977 |
| | *Total Account 391* | | | 14,472,494.00 | 1,646,685 | 11.38 | 8,425,679 |
| 392.1 | Transportation Equipment - Autos | 6-L3 | 15 | 886,568.00 | 123,193 | 13.90 | 248,036 |
| 392.2 | Transportation Equipment - Trucks | 11-S2.5 | 10 | 4,979,667.00 | 394,527 | 7.92 | 2,566,989 |
| | *Total Account 392* | | | 5,866,235.00 | 517,720 | 8.83 | 2,815,025 |
| 393 | Stores Equipment | 25-SQ | 0 | 346,351.00 | 7,877 | 2.27 | 226,513 |
| 394 | Tools, Shop and Garage Equipment | 20-SQ | 0 | 10,510,881.00 | 424,589 | 4.04 | 5,502,845 |
| 395 | Laboratory Equipment | 20-SQ | 0 | 309,445.00 | 8,736 | 2.82 | 200,067 |
| 396 | Power Operated Equipment | 13-L2 | 15 | 16,743,818.00 | 1,093,735 | 6.53 | 6,100,746 |
| 397 | Communication Equipment | 15-SQ | 0 | 1,210,084.00 | 65,824 | 5.44 | 800,777 |
| 398 | Miscellaneous Equipment | 15-SQ | 0 | 1,299,990.00 | 76,366 | 5.87 | 445,037 |
| | *Total General Plant* | | | 51,262,032.00 | 3,859,104 | | 24,705,699 |
| | **Total Depreciable Plant** | | | **1,208,219,490.00** | **36,534,250** | | **472,739,737** |
| NONDEPRECIABLE PLANT | | | | | | | |
| 301 | Organization | | | 2,500.22 | | | |
| 302 | Franchises & Consents | | | 8,484.49 | | | |
| 304 | Land | | | 179,176.40 | | | |
| 350.1 | Land | | | 1,201,600.30 | | | |
| 350.2 | Right-of-Way | | | 775,517.59 | | | |
| 352.1 | Stge Leasehold Rights | | | 2,055,421.60 | | | |
| 360 | Land & Land Rights | | | 50,653.53 | | | |
| 361 | Structures & Improvements | | | 102,382.63 | | | |
| 362 | Holders | | | 665,815.99 | | | |
| 363.3 | Compressor Equipment | | | 374,035.25 | | | |
| 365 | Right-of-Way | | | 41,152.62 | | | |
| 374 | Land Rights | | | 1,589,031.11 | | | |

LACLEDE GAS COMPANY

TABLE 1. ESTIMATED SURVIVOR CURVES, NET SALVAGE, ORIGINAL COST, AND
CALCULATED ANNUAL AND ACCRUED DEPRECIATION RELATED TO GAS PLANT AT SEPTEMBER 30, 2009

| | Depreciable Group | Survivor Curve | Net Salvage | Original Cost at September 30, 2009 | Calculated Annual Accrual | | Calculated Accrued Depreciation |
|---|---|---|---|---|---|---|---|
| | | | | | Amount | Rate | |
| | (1) | (2) | (3) | (4) | (5) | (6)=(5)/(4) | (7) |
| 375.2 | Structures & Improvements | | | 9,664.54 | | | |
| 375.4 | Structures & Improv Leased Property | | | 6,448.03 | | | |
| 389 | Land & Rights | | | 10,088.75 | | | |
| 390.1 | Structures & Improvements - Office | | | 3,865,934.23 | | | |
| 390.3 | Structures & Improvements Leased Property | | | 35,641.38 | | | |
| 390.7 | Structures & Improvements Leased Property | | | 100,159.70 | | | |
| 390.8 | Structures & Improvements Leased Property | | | 30,034.02 | | | |
| 391.3 | DP Software | | | 37,929,667.64 | | | |
| | Subtotal Nondepreciable Plant | | | 49,033,410.02 | | | |
| | **Total Gas Plant** | | | **1,257,252,900.02** | **36,534,250** | | **472,739,737** |

SCHEDULE JJS-2

LACLEDE GAS COMPANY

TABLE 2. COMPARISON OF CALCULATED ACCRUED DEPRECIATION AND BOOK DEPRECIATION RESERVE AT SEPTEMBER 30, 2009 AND CALCULATION OF ANNUAL AMORTIZATION OF THE RESERVE VARIANCE BASED ON A COMPOSITE REMAINING LIFE PERIOD

| | Depreciable Group | Original Cost at September 30, 2009 | Calculated Accrued Depreciation | Book Depreciation Reserve | Variance | Remaining Life | Annual Amortization True Up |
|---|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5)=(3)-(4) | (6) | (7)=(5)/(6) |
| DEPRECIABLE PLANT | | | | | | | |
| MANUFACTURED GAS PLANT - LPG | | | | | | | |
| 305 | Structures and Improvements | 1,082,676.00 | 412,000 | 728,139 | (316,139) | 25.0 | (12,646) |
| 307 | Other Power Equipment | 159,015.00 | 112,595 | 134,942 | (22,347) | 21.5 | (1,039) |
| 311 | Liquefied Petroleum Gas | | | | | | |
| | Equipment | 4,632,069.00 | 1,257,961 | 2,241,330 | (983,369) | 25.0 | (39,335) |
| | Storage Caverns | 4,829,688.00 | 3,022,381 | 5,017,216 | (1,994,835) | - | - |
| | *Total Account 311* | 9,461,757.00 | 4,280,342 | 7,258,546 | (2,978,204) | | (39,335) |
| | *Total Manufactured Gas Plant - LPG* | 10,703,448.00 | 4,804,937 | 8,121,627 | (3,316,690) | | (53,020) |
| UNDERGROUND STORAGE PLANT | | | | | | | |
| | Structures and Improvements | | | | | | |
| 351.2 | Compressor Station | 614,207.00 | 449,508 | 641,720 | (192,212) | 25.0 | (7,688) |
| 351.4 | Other Structures | 1,000,691.00 | 528,904 | 846,973 | (318,069) | 25.0 | (12,723) |
| | *Total Account 351* | 1,614,898.00 | 978,412 | 1,488,693 | (510,281) | | (20,411) |
| 352 | Wells | 6,128,278.00 | 3,133,321 | 6,149,252 | (3,015,931) | 25.0 | (120,637) |
| 352.2 | Reservoirs | 245,023.00 | 111,341 | 184,476 | (73,135) | 25.0 | (2,925) |
| 352.3 | Non-Recoverable Gas | 6,167,263.00 | 914,566 | 2,406,384 | (1,491,818) | 25.0 | (59,673) |
| 352.4 | Wells - Oil and Vent Gas | 741,207.00 | 293,004 | 437,896 | (144,892) | 25.0 | (5,796) |
| | *Total account 352* | 13,281,771.00 | 4,452,232 | 9,178,008 | (4,725,776) | | (189,031) |
| 353 | Lines | 2,885,559.00 | 1,476,454 | 2,487,174 | (1,010,720) | 25.0 | (40,429) |
| 354 | Compressor Station Equipment | 2,411,310.00 | 1,622,677 | 2,311,555 | (688,878) | 25.0 | (27,555) |
| 355 | Measuring & Regulating Equipment | 2,013,702.00 | 1,002,338 | 1,976,114 | (973,776) | 25.0 | (38,951) |
| 356 | Purification Equipment | 233,043.00 | 170,387 | 210,469 | (40,082) | 20.6 | (1,946) |
| 357 | Other Equipment | 61,691.00 | 28,498 | 21,495 | 7,003 | 6.7 | 1,045 |
| | *Total Underground Storage Plant* | 22,501,974.00 | 9,730,998 | 17,673,508 | (7,942,510) | | (317,278) |

**LACLEDE GAS COMPANY**

**TABLE 2. COMPARISON OF CALCULATED ACCRUED DEPRECIATION AND BOOK DEPRECIATION RESERVE AT SEPTEMBER 30, 2009 AND CALCULATION OF ANNUAL AMORTIZATION OF THE RESERVE VARIANCE BASED ON A COMPOSITE REMAINING LIFE PERIOD**

| | Depreciable Group | Original Cost at September 30, 2009 | Calculated Accrued Depreciation | Book Depreciation Reserve | Variance | Remaining Life | Annual Amortization True Up |
|---|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5)=(3)-(4) | (6) | (7)=(5)/(6) |
| TRANSMISSION PLANT | | | | | | | |
| 367 | Mains | 2,013,842.00 | 1,176,164 | 1,769,901 | (593,737) | 25.0 | (23,749) |
| 371 | Other Equipment | 17,180.00 | 15,495 | 19,311 | (3,816) | - | - |
| | *Total Transmission Plant* | 2,031,022.00 | 1,191,659 | 1,789,212 | (597,553) | | (23,749) |
| DISTRIBUTION PLANT | | | | | | | |
| | Structures and Improvements | | | | | | |
| 375 | District Measuring & Regulating | 246,429.00 | 119,077 | 92,026 | 27,051 | 20.4 | 1,326 |
| | Service Centers | 8,038,592.00 | 2,658,422 | 2,675,925 | (17,503) | 25.0 | (700) |
| | Garage | 659,256.00 | 330,039 | 297,916 | 32,123 | 24.2 | 1,327 |
| | Other Small Structures | 107,507.00 | 45,568 | 67,251 | (21,683) | 25.0 | (867) |
| | *Total Account 375* | 9,051,784.00 | 3,153,106 | 3,133,118 | 19,988 | | 1,086 |
| | Mains | | | | | | |
| 376 | Steel | 214,772,107.00 | 78,748,190 | 124,410,808 | (45,662,618) | 25.0 | (1,826,505) |
| | Cast Iron | 14,334,442.00 | 17,308,610 | 6,843,815 | 10,464,795 | 23.6 | 443,424 |
| | Plastic & Copper | 231,246,343.00 | 44,581,027 | 50,103,233 | (5,522,206) | 25.0 | (220,888) |
| | *Total Account 376* | 460,352,892.00 | 140,637,827 | 181,357,856 | (40,720,029) | | (1,603,969) |
| 378 | Meas and Reg Equipment - General | 9,153,338.00 | 2,852,386 | 1,288,552 | 1,563,834 | 22.9 | 68,290 |
| 379 | Meas and Reg Equipment - City Gate | 2,107,931.00 | 749,332 | 432,410 | 316,922 | 20.3 | 15,612 |
| 380 | Services | | | | | | |
| | Steel | 38,622,201.00 | 33,748,361 | 31,518,020 | 2,230,341 | 22.6 | 98,688 |
| | Plastic & Copper | 450,965,367.00 | 204,905,473 | 145,417,062 | 59,488,411 | 25.0 | 2,379,536 |
| | *Total Account 380* | 489,587,568.00 | 238,653,834 | 176,935,082 | 61,718,752 | | 2,478,224 |
| 381 | Meters | 118,155,709.00 | 36,544,510 | 18,017,609 | 18,526,901 | 23.2 | 798,573 |
| 383 | House Regulator | 21,532,948.00 | 6,593,858 | 7,913,164 | (1,319,306) | 25.0 | (52,772) |
| 385 | Industrial Meas and Reg Equipment | 11,353,611.00 | 2,959,206 | 3,502,319 | (543,113) | 25.0 | (21,725) |
| 386 | Other Property on Customer Premises | 22,974.00 | 19,886 | 154,523 | (134,637) | - | - |
| 387 | Other Equipment | 402,259.00 | 142,499 | 314,534 | (172,035) | 25.0 | (6,881) |
| | *Total Distribution Plant* | 1,121,721,014.00 | 432,306,444 | 393,049,167 | 39,257,277 | | 1,676,438 |

**LACLEDE GAS COMPANY**

**TABLE 2. COMPARISON OF CALCULATED ACCRUED DEPRECIATION AND BOOK DEPRECIATION RESERVE AT SEPTEMBER 30, 2009 AND CALCULATION OF ANNUAL AMORTIZATION OF THE RESERVE VARIANCE BASED ON A COMPOSITE REMAINING LIFE PERIOD**

| | Depreciable Group | Original Cost at September 30, 2009 | Calculated Accrued Depreciation | Book Depreciation Reserve | Variance | Remaining Life | Annual Amortization True Up |
|---|---|---|---|---|---|---|---|
| | (1) | (2) | (3) | (4) | (5)=(3)-(4) | (6) | (7)=(5)/(6) |
| GENERAL PLANT | | | | | | | |
| 390 | Structures & Improvements - General | 502,734.00 | 189,010 | 84,545 | 104,465 | 15.8 | 6,612 |
| 391 | Office Furniture and Equipment | 4,971,237.00 | 2,310,225 | 1,196,209 | 1,114,016 | 7.8 | 142,823 |
| | Mechanical Office Equipment | 346,321.00 | 292,796 | (31,901) | 324,697 | 3.0 | 108,232 |
| | DP Systems | 7,702,016.00 | 4,537,681 | 5,494,360 | (956,679) | 3.0 | (318,893) |
| | DP Equipment | 1,452,920.00 | 1,284,977 | (393,352) | 1,678,329 | 1.5 | 1,118,886 |
| | *Total Account 391* | 14,472,494.00 | 8,425,679 | 6,265,316 | 2,160,363 | | 1,051,048 |
| 392.1 | Transportation Equipment - Autos | 886,568.00 | 248,036 | 808,259 | (560,223) | - | - |
| 392.2 | Transportation Equipment - Trucks | 4,979,667.00 | 2,566,989 | 2,260,538 | 306,451 | 4.4 | 69,648 |
| | *Total Account 392* | 5,866,235.00 | 2,815,025 | 3,068,797 | (253,772) | | 69,648 |
| 393 | Stores Equipment | 346,351.00 | 226,513 | 240,482 | (13,969) | 15.4 | (907) |
| 394 | Tools, Shop and Garage Equipment | 10,510,881.00 | 5,502,845 | 2,201,562 | 3,301,283 | 7.3 | 452,231 |
| 395 | Laboratory Equipment | 309,445.00 | 200,067 | 175,995 | 24,072 | 10.4 | 2,315 |
| 396 | Power Operated Equipment | 16,743,818.00 | 6,100,746 | 9,853,337 | (3,752,591) | 9.6 | (390,895) |
| 397 | Communication Equipment | 1,210,084.00 | 800,777 | 455,638 | 345,139 | 5.7 | 60,551 |
| 398 | Miscellaneous Equipment | 1,299,990.00 | 445,037 | 200,809 | 244,228 | 8.6 | 28,399 |
| | *Total General Plant* | 51,262,032.00 | 24,705,699 | 22,546,481 | 2,159,218 | | 1,279,002 |
| | **Total Depreciable Plant** | **1,208,219,490.00** | **472,739,737** | **443,179,995** | **29,559,742** | | **2,561,393** |

Note: Composite Remaining Life by account determined not to exceed 25.0 years.

SCHEDULE JJS-3

LACLEDE GAS COMPANY

TABLE 3. CALCULATION OF TOTAL ANNUAL DEPRECIATION INCLUDING AMORTIZATION
OF RESERVE VARIANCE AT SEPTEMBER 30, 2009

| | Depreciable Group (1) | Whole Life Annual Accrual Amount (2) | Annual Amortization True Up (3) | Total Annual Depreciation Amount (4) = (2) + (3) |
|---|---|---|---|---|
| DEPRECIABLE PLANT | | | | |
| MANUFACTURED GAS PLANT - LPG | | | | |
| 305 | Structures and Improvements | 20,793 | (12,646) | 8,147 |
| 307 | Other Power Equipment | 5,825 | (1,039) | 4,786 |
| 311 | Liquefied Petroleum Gas | | | |
| | Equipment | 147,369 | (39,335) | 108,034 |
| | Storage Caverns | 87,900 | 0 | 87,900 |
| | *Total Account 311* | 235,270 | (39,335) | 195,935 |
| | *Total Manufactured Gas Plant - LPG* | 261,887 | (53,020) | 208,867 |
| UNDERGROUND STORAGE PLANT | | | | |
| | Structures and Improvements | | | |
| 351.2 | Compressor Station | 15,681 | (7,688) | 7,993 |
| 351.4 | Other Structures | 20,034 | (12,723) | 7,311 |
| | *Total Account 351* | 35,715 | (20,411) | 15,304 |
| 352 | Wells | 74,826 | (120,637) | (45,811) |
| 352.2 | Reservoirs | 2,992 | (2,925) | 67 |
| 352.3 | Non-Recoverable Gas | 68,457 | (59,673) | 8,784 |
| 352.4 | Wells - Oil and Vent Gas | 9,050 | (5,796) | 3,254 |
| | *Total account 352* | 155,325 | (189,031) | (33,706) |
| 353 | Lines | 49,516 | (40,429) | 9,087 |
| 354 | Compressor Station Equipment | 46,080 | (27,555) | 18,525 |
| 355 | Measuring & Regulating Equipment | 40,274 | (38,951) | 1,323 |
| 356 | Purification Equipment | 5,824 | (1,946) | 3,878 |
| 357 | Other Equipment | 3,085 | 1,045 | 4,130 |
| | *Total Underground Storage Plant* | 335,818 | (317,278) | 18,540 |
| TRANSMISSION PLANT | | | | |
| 367 | Mains | 30,208 | (23,749) | 6,459 |
| 371 | Other Equipment | 400 | 0 | 400 |
| | *Total Transmission Plant* | 30,608 | (23,749) | 6,859 |
| DISTRIBUTION PLANT | | | | |
| | Structures and Improvements | | | |
| 375 | District Measuring & Regulating | 6,777 | 1,326 | 8,103 |
| | Service Centers | 184,725 | (700) | 184,025 |
| | Garage | 14,504 | 1,327 | 15,831 |
| | Other Small Structures | 2,688 | (867) | 1,821 |
| | *Total Account 375* | 208,694 | 1,086 | 209,780 |
| | Mains | | | |
| 376 | Steel | 3,221,582 | (1,826,505) | 1,395,077 |
| | Cast Iron | 322,525 | 443,424 | 765,949 |
| | Plastic & Copper | 3,802,846 | (220,888) | 3,581,958 |
| | *Total Account 376* | 7,346,953 | (1,603,969) | 5,742,984 |
| 378 | Meas and Reg Equipment - General | 339,147 | 68,290 | 407,437 |
| 379 | Meas and Reg Equipment - City Gate | 88,512 | 15,612 | 104,124 |

LACLEDE GAS COMPANY

TABLE 3. CALCULATION OF TOTAL ANNUAL DEPRECIATION INCLUDING AMORTIZATION OF RESERVE VARIANCE AT SEPTEMBER 30, 2009

| | Depreciable Group | Whole Life Annual Accrual Amount | Annual Amortization True Up | Total Annual Depreciation Amount |
|---|---|---|---|---|
| | (1) | (2) | (3) | (4) = (2) + (3) |
| 380 | Services | | | |
| | Steel | 1,665,776 | 98,688 | 1,764,464 |
| | Plastic & Copper | 18,602,321 | 2,379,536 | 20,981,857 |
| | *Total Account 380* | 20,268,097 | 2,478,224 | 22,746,321 |
| 381 | Meters | 3,030,488 | 798,573 | 3,829,061 |
| 383 | House Regulator | 430,659 | (52,772) | 377,887 |
| 385 | Industrial Meas and Reg Equipment | 319,718 | (21,725) | 297,993 |
| 386 | Other Property on Customer Premises | 1,230 | 0 | 1,230 |
| 387 | Other Equipment | 13,335 | (6,881) | 6,454 |
| | *Total Distribution Plant* | 32,046,833 | 1,676,438 | 33,723,271 |
| GENERAL PLANT | | | | |
| 390 | Structures & Improvements - General | 17,572 | 6,612 | 24,184 |
| 391 | Office Furniture and Equipment | 207,945 | 142,823 | 350,768 |
| | Mechanical Office Equipment | 9,579 | 108,232 | 117,811 |
| | DP Systems | 1,334,131 | (318,893) | 1,015,238 |
| | DP Equipment | 95,030 | 1,118,886 | 1,213,916 |
| | *Total Account 391* | 1,646,685 | 1,051,048 | 2,697,733 |
| 392.1 | Transportation Equipment - Autos | 123,193 | 0 | 123,193 |
| 392.2 | Transportation Equipment - Trucks | 394,527 | 69,648 | 464,175 |
| | *Total Account 392* | 517,720 | 69,648 | 587,368 |
| 393 | Stores Equipment | 7,877 | (907) | 6,970 |
| 394 | Tools, Shop and Garage Equipment | 424,589 | 452,231 | 876,820 |
| 395 | Laboratory Equipment | 8,736 | 2,315 | 11,051 |
| 396 | Power Operated Equipment | 1,093,735 | (390,895) | 702,840 |
| 397 | Communication Equipment | 65,824 | 60,551 | 126,375 |
| 398 | Miscellaneous Equipment | 76,366 | 28,399 | 104,765 |
| | *Total General Plant* | 3,859,104 | 1,279,002 | 5,138,106 |
| | **Total Depreciable Plant** | **36,534,250** | **2,561,393** | **39,095,643** |