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MISSOURI PUBLIC SERVICE COMMISSION

UTILITY SERVICES DIVISION

DIRECT TESTIMONY

OF

ROSELLA L. SCHAD

LACLEDE GAS COMPANY

CASE NO. GR-2001-629

Jefferson City, Missouri
October 2001

****Denotes Highly Confidential Information****

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DIRECT TESTIMONY

OF

ROSELLA L. SCHAD

LACLEDE GAS COMPANY

CASE NO. GR-2001-629

Q. What is your name and business address?

A. Rosella L. Schad, P.O. Box 360, Jefferson City, MO 65102.

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

A. I am employed by the Missouri Public Service Commission (PSC or Commission) as an Engineering Specialist III in the Engineering and Management Services Department.

Q. What are your duties as an Engineering Specialist III in the Engineering and Management Services Department?

A. I am responsible for depreciation determinations and engineering analyses of companies regulated by the Commission.

Q. What are your qualifications, educational background and experience?

In 1978, I earned a Bachelor of Science degree in Mechanical Engineering from the University of Missouri-Columbia, and I received E.I.T. (Engineer in Training) certification in 1977. I was employed by Union Electric (now AmerenUE) as an engineer intern during the summer of 1977 and employed as an engineer by Union Electric in its Nuclear Construction Department from 1978-1980. I joined the Missouri Public Service Commission Staff as an Engineering Specialist in the Depreciation Department in 1999.

Q. Have you previously filed testimony before this Commission?

A. Yes. Schedule 1 attached to my testimony provides a list of cases in which I have previously filed testimony.

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

A. The purpose of my testimony in this case is to present Staff's determination of depreciation rates, annual accrual reductions and recommended treatment of net salvage costs[1]. Staff's proposal in this case is:

1) That depreciation rates include only the recovery of original capital plant cost;
2) That there be a net reduction to the annual depreciation accrual[2] of approximately $8 Million, achieved through reduced depreciation rates, allocated as follows:
    I. A net reduction of approximately $1 Million to annual accrual due to changes in plant ASL's[3];
    II. A net reduction of approximately $2 Million to annual accrual due to expensing net salvage costs;
    III. A reduction of approximately $5 Million to annual accrual due to the Company's over-accruing approximately $125 Million in prior years.
3) That a net salvage expense of approximately $4 Million be included as an annual expense by Staff auditors; and

[1] Net salvage costs is a term that refers to "cost of removal being greater than gross salvage"
[2] Annual Depreciation Accrual for an account = [Account's **Plant Balance * Depreciation Rate]**
[3] ASL (Average Service Life) = Average expected life of all units in an account

4) Accounts ([307.00]; [352.00]; [352.30]; [361.00]; [362.00]; [363.30]; [371.70]; [386.10]; [386.90]) that have an accrued reserve greater than plant balance will not accrue depreciation expense (i.e., zero percent depreciation rate) to the reserve until those accounts' accrued reserve no longer exceeds plant balance, and that one account [305.00] start accruing depreciation expense.

DEPRECIATION DETERMINATION STUDY

Q. Did you conduct and complete a depreciation study of Laclede Gas Company's (Laclede or Company) plant?

A. Yes. I studied the seven largest accounts and one smaller account and submitted all my work papers, including my results, to the Company. My study will be discussed later and the results presented in this testimony.

Q. Does Staff's depreciation determination treat depreciation as a "cost of operation?"

A. Yes. In Depreciation Systems[4], the authors associate depreciation with "cost of operation" by stating:

> One goal of accrual accounting is to match the timing of expenses with the activities associated with the expense. Thus, *the initial cost of a capital asset should be allocated to accounting periods* in a way that results in a logical match of the depreciation expense with the life of the asset. These ideas lead to the concept of depreciation as a 'cost of operation.' (emphasis added)

[4] Depreciation Systems, Frank K. Wolf and W. Chester Fitch, 1994 Iowa State University Press, p. viii.

Staff's position is that the initial capital cost includes only the original investment cost and that these costs are divided into equal amounts annually that are recorded as a "cost of operation" each year.

Q. Does Staff believe that depreciation should be used for other financial objectives?

A. No. The text Public Utility Depreciation Practices[5], published in August 1996 by the National Association of Regulatory Utility Commissioners (NARUC), addresses this issue:

> It is essential to remember that depreciation is intended only for the purpose of recording the periodic allocation of cost in a manner properly related to the useful life of the plant. It is not intended, for example, to achieve a desired financial objective or to fund modernization programs.

Q. How are depreciation rates used in the Company's revenue requirement determination?

A. Depreciation rates are used to determine the annual accrual for depreciation. This annual value, called the annual depreciation accrual or depreciation expense, is a portion of the Company's revenue requirement.

Q. Why is it necessary to make this determination?

A. This determination is necessary because each dollar increase/decrease of the Company's annual depreciation accrual will result in an increase/decrease in the Company's annual revenue requirement. Therefore, the depreciation accrual is important because the revenue requirement is directly related to the amount of annual revenue the Company will collect from customers in its utility rates.

[5] Public Utility Depreciation Practices, National Association of Regulatory Utility Commissioners, 1996, p. 23.

Q. How is the annual depreciation accrual for an account determined?

A. The annual depreciation accrual for an account is determined by multiplying plant balance by the depreciation rate. Using Staff's proposed depreciation rate determination (see Table III, page 13), the annual accrual equals the original capital cost of plant in that account divided by the average service life (ASL) of the plant in that account. This is frequently called straight-line depreciation. Straight-line depreciation recovers original capital cost of plant in equal amounts over the average service life of the plant. For example, if a unit of plant has a 20-year ASL, the Company will recover $1/20^{th}$ of the plant's original capital cost each year over the life of the plant.

Q. How is the ASL of each account determined?

A. There are a series of steps to the engineering project, which the depreciation engineer performs to determine the ASL of each account.

First, using the Gannet-Fleming software, a survivor plot is developed from each age of property in the account by analyzing the Company's plant data, a historical record of plant additions and retirements by vintage. The survivor plot is fitted, using curve-fitting calculations, to an Iowa-type curve[6] to determine each account's ASL. Because plant in each account or sub-account is similar, plant in service is normally expected to have an ASL closely equal to the account's historical experience.

Second, engineering judgment is utilized to determine if the ASL for current plant in service should be altered from the ASL determined from historical experience.

[6] Iowa curves are standard curves that were empirically developed to describe the life characteristics of most industrial and utility property.

Third, meetings are held with Company engineers and operations personnel along with tours of Company facilities. Past and present plant operations and plant maintenance is discussed to become knowledgeable about future projects anticipated by management, all of which may have an effect on ASL's of current plant.

Fourth, meetings are also held with Staff engineers to learn about the Company's Mains and Services' replacement programs.

All of this work is combined to arrive at Staff's proposed ASLs.

Q. As a part of your depreciation study did you develop a survivor plot from the Company's historical plant data, perform a curve-fitting routine, examine historical versus current experiences, and have meetings with Company and Staff engineers in order to determine the appropriate ASL for each account?

A. Yes. I studied the Company's historical plant data, performed an actuarial analysis, and held meetings with Company and Staff engineers to develop knowledge of the Company's plant. Most of my focus was spent on the seven largest accounts, which represent 88% of the Company's plant, and one smaller account. I performed these multiple steps to determine the appropriate ASL for each of the eight accounts. I will refer to the seven largest accounts as the **"Big 7"** accounts. The eighth account, [305.00] Structures & Improvements, will be discussed later in my testimony under "Other Accounts." The "Big 7" accounts are:

1. [376.01] Steel Mains (Including [367.70] Transmission Mains)
2. [376.02] Cast Iron Mains
3. [376.03] Plastic & Copper Mains
4. [380.01] Steel Services

5. [380.02] Plastic & Copper Services

6. [381.01] Meters

7. [383.01] Regulators

REDUCTION OF ANNUAL ACCRUAL DUE TO CHANGES IN AVERAGE SERVICE LIFE IN THE DEPRECIATION RATE DETERMINATION

Q. Are your proposed ASL's a change from the currently ordered lives (ASL's) for the "Big 7" Accounts?

A. Yes. ASL's have changed on some accounts since accounts were last studied. Four years of additional historical plant data have been added since Staff depreciation engineers last performed a depreciation study.

Q. Can specific events cause a plant account's ASL's to become shorter or longer?

A. Specific events, such as natural catastrophes, can contribute to a plant account experiencing a longer or shorter ASL. But it is important in depreciation analysis to realize that the plant ASL is dynamic and will change with time, in the absence of catastrophic events.

Q. Have you identified some of the potential reasons that an account's ASL changes?

A. Yes. The history of the two accounts listed in the following Table IA and Table IB reflects how technology changes, regulatory requirements and changes in the material from which different vintages of plant were manufactured may affect ASL.

In the first account, [376.01] steel mains, early vintages of steel mains were unprotected steel (58 year ASL), which was susceptible to corrosive forces. Recently, steel mains were installed with cathodic protection, which should result in a

longer ASL for the account (77 year and 79 year ASL), as indicated in the following Table IA.

In the second account, [376.03] plastic & copper mains, only plastic has been installed recently. The earliest vintages of plant in this account were copper only (58 yearr ASL). Consequently, the account's ASL was, at one time, based on copper plant only. Early placement of plastic normally experiences a learning curve with changes in manufacturing processes and installation requirements (53 year ASL). New technology may have failures that result in premature retirements and a shortened ASL, but the ASL for plastic mains tends to lengthen as the learning curve takes effect (70 year ASL), as in indicated in Table IB below.

Average Service Life Analysis

TABLE IA

[376.01] Steel Mains

Year	ASL
Mid -1980's	58
Early – 1990's	77
Current Staff Proposal	79

TABLE IB

[376.03] Plastic & Copper Mains

Year	ASL
Mid -1980's	58
Early – 1990's	53
Current Staff Proposal	70

Q. Has Staff determined that these events contributed to the proposed ASL's?

A. Yes.

Q. Has Staff determined the effect of the changes in ASL on each of the "Big 7" accounts' depreciation rates in this case?

A. Yes. As seen in Table II below, the net effect of the changes in ASL on each of the "Big 7" accounts' depreciation rates is a reduction in the annual depreciation accrual of approximately $ 1 Million, based on 9-30-00 plant balances.

Average Service Life Determination

"Big 7" Accounts

TABLE II

Ordered annual accrual, Life only	$15, 433,831
Staff annual accrual, Life only	$14,523,699
Accrual reduction due to ASL changes	$ 910,132

Based on 9-30-00 Plant Balances

REDUCTION OF ANNUAL ACCRUAL DUE TO ELIMINATION OF NET SALVAGE COSTS FROM THE DEPRECIATION RATE DETERMINATION

Q. Can you briefly explain what Staff refers to as net salvage?

A. Yes. Net salvage is the difference between the gross salvage (value received) that will be realized when an asset is removed from service and disposed of, and the cost of removing that asset. For some accounts gross salvage will exceed cost of removal and, in those cases, net salvage will be a positive value. For those accounts where net salvage is negative, because cost of removal is greater than gross salvage, Staff frequently uses the term "net salvage cost." Net salvage costs are associated with both mass property accounts and life span property accounts. Mass property accounts experience "final net salvage costs" for "final retirement costs." Examples of "Mass Property Accounts" include mains and services. A mass property final retirement occurs when a unit of plant retires. Life span property experience both "interim net salvage

cost" for "interim retirement costs" and "final net salvage cost" for "final retirement costs." Examples of "Life Span Property Accounts" include structures and gas holders. A life span property interim retirement occurs when a unit of plant, such as a roof, retires during the life of a structure. A life span property final retirement occurs when all units in the account retire together, regardless of age; i.e., a sixty-year-old structure with a two-year-old roof.

Q. Has Staff removed net salvage from the depreciation rate determination and included the costs with annual expenses?

A. Yes. Staff's depreciation rate determination is exclusive of all net salvage amounts. Staff recognizes that future levels of net salvage cannot be determined with reasonable accuracy. Net salvage costs may occur far into the future if at all. Staff does not include net salvage costs in the depreciation accrual. Staff's proposed depreciation accrual will only recover original capital cost of plant. The Company's current level of net salvage costs are determined by Staff auditors and included with other annual expenses.

Q. Why is it important to remove net salvage costs from depreciation determinations?

A. It is important to remove net salvage costs from depreciation determinations because inclusion of net salvage value in the depreciation rate creates the need to project the date that plant will be removed, the cost of removal at the time it is removed and the gross salvage value, for plant that may not be removed for some considerable time after it is retired; or in the case it is never removed an arrangement to return the collection of monies to the ratepayer.

Q. If net salvage is expensed, what benefits are gained by the Company and the Company's customers?

A. Including net salvage cost as an annual expense provides the benefit that the ratepayer pays costs that are actually incurred and it ensures that the Company recovers the costs associated with plant that is actually removed.

Q. **_____**

A. **_____**

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Q. Have recent Commission cases given additional support to Staff's decision to treat net salvage cost as an expense rather than to the depreciation accrual?

A. Yes. In Osage Water Company, Case Nos. WR-2000-557 and SR-2000-556, and in Ozark Telephone Company, Case No. TC-2001-402, the depreciation rates ordered, and consequently the depreciation accrual, does not include an allowance for net salvage amounts. Net salvage costs are to be booked as an expense.

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Q. What was Staff's proposal for net salvage costs in these cases?

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Q. **_____
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A. **_____
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Q. **_____
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A. **____**

Q. How does this change of booking net salvage costs as an O & M expense rather than to the depreciation accrual affect the depreciation rate determination?

A. This change from booking the net salvage costs to the depreciation accrual (or "traditional whole life" depreciation rate determination, as described in the St. Louis

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County Water, Case No. WR-2000-844) changes the numerator in the depreciation rate determination formula as shown in Table III below.

Depreciation Rate Determination

TABLE III

"Traditional Whole Life"	Depreciation Rate = {[100 %* - Net salvage %] / ASL}
"Laclede Currently Ordered"	Depreciation Rate = {[100 % - X %**] / ASL}
"Staff Proposed"	Depreciation Rate = {100 %* / ASL}

* In the formula, 100 % = Original Capital Cost of Plant / Original Capital Cost of Plant

** X is a variable that is defined for each account such that the following condition is met: [(X % / ASL) * Plant Balance] = Account's current net salvage experienced by the Company

Q. What would be the result of using the "traditional whole life" depreciation rate determination with a company that is booking net salvage costs to expense?

A. The result of using the "traditional whole life" rate depreciation determination would be that depreciation rates would reflect the recovery of original capital cost only because the net salvage percent would be zero percent.

Q. Have depreciation consultants stated concerns about estimations of future net salvage costs?

A. Yes. Thomas Sullivan of Black and Veatch, depreciation consultant for Missouri Gas Energy (MGE), presented this concern in his depreciation study for the recent Case No. GR-2001-292. With regard to the inclusion of net salvage cost in the depreciation accrual, he states: "Problems may result, especially with mains and services if the net salvage allowance is large and a relatively small amount of plant is being

retired. A large depreciation reserve may be accumulated in anticipation of cost of removal expenses that may or may not occur." Mr. Sullivan's concerns mirror Staff's concern about estimations of future net salvage costs that may never occur.

Q. Is it your conclusion that net salvage costs should be determined based on current experience and included in current expenses rather than in the depreciation accrual?

A. Yes.

Q. Do Laclede's currently ordered depreciation rates include amounts for future levels of net salvage?

A. No. The currently ordered depreciation rates do not include net salvage amounts that were based on future gross salvage and cost of removal estimates, i.e, the "traditional whole life" depreciation rate determination (see Table III, page 13). The currently ordered depreciation rates incorporate a "current" level of net salvage costs such that the depreciation accrual would recover, in addition to original capital cost of plant, the "current" amount of net salvage costs that the company is incurring.

Q. Can you provide an example that illustrates the differences in the three depreciation rate determinations you have presented?

A. Yes. The three depreciation rate determination formulas, as given in Table III, page 13, will be applied to a comparable set of plant data to illustrate the differences in methodology and outcome.

DEPRECIATION RATE DETERMINATION ILLUSTRATION

Plant Data:
Plant Balance = $500 M
Plant ASL = 50 yrs.
Current Net Salvage Cost = $100,000
Gross Salvage = $0
Current Dollars of Plant Retired = $50,000

"Traditional Whole Life"
Depreciation Rate = {[100 % - Net salvage %] / ASL}
{[100% - (-$100,000 / $50,000)] / 50 yrs} = {[100% - <200 %>] / 50} =
{[300 %] / 50} = {3 / 50} = 6.00 % Depreciation Rate
{6 % Depreciation Rate * $500 M} = {0.06 * 500,000,000} =
$30 Million Annual Accrual

"Laclede's Currently Ordered"
Depreciation Rate = {[100 % - X %] / ASL}
First, a separate calculation must be performed such that the current net salvage experienced by the Company is recovered through the depreciation rate.
{(X % / 50 yrs) * ($500M) = -$100,000}; [X % = -1 %]
{[100 % - <1 %>] / 50} = {[101 % / 50} = {1.01 / 50} = 2.02 % Depreciation Rate
{2.02 % Depreciation Rate * $500 M} = {0.0202 * 500,000,000} =
$10.1 Million Annual Accrual

"Staff Proposed"
Depreciation Rate = {100 % / ASL}
{[100 %] / 50 yrs.} = {[100 %] / 50} = {1 / 50} = 2.00 % Depreciation Rate
{2.00 % Depreciation Rate * $500 M} = {0.02 * 500,000,000} =
$10 Million Annual Accrual*
*An additional annual expense of $100,000 for net salvage costs would also be included with other expenses by Staff auditors.

This example also illustrates how the "traditional whole life" depreciation rate determination generates a large annual accrual, which accumulates in the depreciation reserve in anticipation of cost of removal expenses that may or may not occur.

Q. Is Staff's treatment of net salvage cost in this case consistent with past Commission decisions?

A. Yes. In Empire District Electric Company, Case No. ER-2001-299, the Commission stated, "The Commission finds that net salvage cost considered in setting rates should be based on historical net salvage cost that was actually incurred in the recent past and that it should be treated as an expense."

Q. Has Staff determined the effect of removing the net salvage from the depreciation rates in this case?

A. Yes. As seen in Table IV below, the net effect of removal of net salvage from the depreciation rate is a reduction in annual depreciation accrual of approximately $2 Million, based on 9-30-00 plant balances.

Net salvage Determination

"Big 7" Accounts

TABLE IV

Ordered annual accrual,	$17,156,356
Ordered annual accrual, Life only	$15,433,831
Accrual reduction due to expensing net salvage	$ 1,722,525

Based on 9-30-00 Plant Balances

REDUCTION OF ANNUAL ACCRUAL DUE TO PRIOR DEPRECIATION RESERVE OVER-ACCRUALS

Q. Can you describe the relationship between the annual accrual and the accrued reserve?

A. Yes. The annual accrual is the amount booked to the reserve each year. As described earlier, for each account, it is a dollar amount equal to the account's depreciation rate multiplied by the dollars of plant balance in the account. The sum of

each year's annual accrual less original cost of plant retired (and any adjustment for cost of removal incurred and salvage value received, if depreciation accruals were determined with the inclusion of net salvage) is the Company's accrued reserve.

Q. Can you briefly explain what is meant by an over-accrual and an under-accrual of the reserve?

A. Yes. An over-accrual and under-accrual of the reserve is relating the amount currently in the reserve to a theoretical reserve amount. The theoretical reserve for an account is a determination of the level of accrued reserve that the Company should have received up to the present time such that the total original cost of plant will be recovered by the time of retirement. The theoretical reserve calculation is an appropriation of the total recovery for the date of the analysis, given the percent of plant surviving for each vintage of plant originally placed in service.

Q. Is the Company's accrued reserve for the "Big 7" accounts greater than or less than the theoretical reserve determined in this depreciation study, based on 9-30-00 plant balances?

A. As shown in Table V below, the accrued reserve for these seven accounts is greater than the theoretical reserve. The reserve is over-accrued by approximately $125 Million.

Over-Accrual Determination
"Big 7" Accounts
TABLE V

Total accrued reserve	$301,682,337
Theoretical accrual	$176,830,336
Reserve over-accrual	$124,852,001

Based on 9-30-00 Reserve Balances

Q. Can you give Staff's determination for this over-accrual?

A. Yes. Staff has determined that over time the Company's depreciation rates have been too high, creating an accrued reserve that is much larger than the theoretical reserve calculation.

The over-accrual is apparently due to two components. The first is the determination of ASL. It appears that past depreciation rates, based on ASL's, which have understated the life of the plant in an account, generated an annual depreciation expense that was too high and an accrual that was excessive. This has created a portion of the Company's over-accrual.

The second component is the determination of net salvage percentage. Net salvage percentage (as previously shown in Table III, page 13) is the ratio of "current net salvage experienced for retired plant" divided by the "original capital cost of that retired plant."

As shown in the example presented earlier, a company spends $100,000 to remove plant that originally cost $50,000 and there is no gross salvage, the net salvage percent is a negative 200%: {(-$100,000/$50,000)*100 %} = <200 %>. Even though it is unknown if, in the future, there will continue to be a negative 200% net salvage, the "traditional whole life" depreciation rate determination (see Table III, page 13) would incorporate this to determine the depreciation rate on a going forward basis. It may not be reasonable to assume that the net salvage experience for a small span of time applies to all plant in the future. It appears that past depreciation rates, based on large negative net salvage percentages experienced during a small span of time, have generated a

depreciation accrual that was too high and, therefore, the accrued reserve balance is excessive.

Therefore, a depreciation rate should be applied to recover the asset's original capital cost only, as previously discussed.

Q. When did the Company's depreciation rates last generate depreciation expense based on large negative net salvage percentages?

A. As recently as Case No. GR-94-220, the Company's depreciation rates were calculated using the "traditional whole life" depreciation rate determination, which incorporated these large negative net salvage percentages on a forward-looking basis. The level of recovery for net salvage cost was adjusted in Case No. GR-98-374, and reaffirmed by the Commission in Case No. GR-99-315, such that the depreciation rates would generate annual accruals equal to the current level of net salvage cost in addition to the recovery of original capital plant cost. In Case No. GR-98-374 Staff witness Paul Adam determined the annual over-accrual equaled $6,839,245. In Mr. Adam's testimony he noted the need for an adjustment plan in a future Laclede rate case that would bring the accrued reserve in line with his computed theoretical reserve.

Q. Earlier you stated that in Case No. GR-98-374 an annual over-accrual of approximately $7 Million was being booked to the Company's accrued reserve at that time. What is the effect on the accrued reserve of such a large annual over-accrual occurring over several years?

A. The effect of a large annual over-accrual being booked over several years builds up the accrued reserve to a level that the accrued reserve now exceeds the theoretical reserve by an excessive amount. In Case No. GR-98-374, Mr. Adam stated

that understated ASL's and large negative net salvage percentages in previously ordered depreciation rates both contributed to the $ 7 Million annual over-accrual.

Q. Is the current reserve over-accrual of approximately $125 Million consistent with past Staff depreciation studies?

A. Yes. In Case No. GR-99-315, Staff witness Paul Adam identified a reserve over-accrual of approximately $100 Million.

Q. What is the benefit to the Company of a large over-accrual in the reserve?

A. The benefit to the Company is the collection of monies in depreciation expense from ratepayers that is now in excess, by far, of that required for full recovery of the plant's original cost at the time retirement occurs. The Company has these monies to spend in any manner the Company wishes.

Q. How does Staff recommend the reserve over-accrual of approximately $125 Million be reduced?

A. Staff recommends reducing this large over-accrual by allocating the reduction through a lowering of the depreciation rates on each of the "Big 7" accounts. Depreciation rates for the "Big 7" accounts were calculated with Staff's ASL's ("Staff's Depreciation Rates With Staff ASL" - Schedule 2). Given the magnitude of the over-accrual and duration of its build up, two approaches were evaluated for reducing the reserve's over-accrual. Both approaches are based on 9-30-00 plant balances and take into account the reduction for the annual over-accrual previously discussed, i.e., Staff's depreciation rates, which incorporate the changes in ASL's and the elimination of net salvage.

The first approach reduces the depreciation rates for each of the "Big 7" accounts proportionately to yield a $5 Million reduction in annual accrual (Schedules 2-7 and 2-8, **"Staff Annual Accrual With $5 Million Annual Reduction"**).

The alternative approach reduces depreciation rates for each of the "Big 7" accounts proportionately to yield a $10 Million reduction in annual accrual (Schedules 2-7 and 2-8, **"Staff Annual Accrual With $10 Million Annual Reduction"**). Staff does not recommend the $10 Million annual depreciation expense reduction because of rate shock concern.

Based on the magnitude of the over-accrual and the need to reduce the annual accrual as expeditiously as is reasonable, Staff recommends its depreciation rates (Schedules 2-7 and 2-8, **"Staff Depreciation Rates With $5 Million Annual Reduction"**), which yield a reduction of the $5 Million in annual depreciation expense. These depreciation rates will reduce the reserve's over-accrual in an expeditious manner, without rate shock.

OTHER ACCOUNTS

Q. Are there other accounts that have accrued reserves that exceed the plant balance?

A. Yes. There are nine accounts, which have an accrued reserve that exceeds the plant balance. This represents a reserve over-accrual for each of these accounts. Staff is supporting a zero percent depreciation rate for each of these accounts until new plant is added to one of these accounts, at which time an ASL would be determined and a depreciation rate assigned if necessary. If a plant account's assets should all be retired, the account's reserve over-recovery would be transferred to another account's reserve

such that the Company and the Company's ratepayers would get the benefit of the previously paid depreciation expense. These accounts are:

1) [307.00] - Other Power Equipment;
2) [352.00] - Wells-Underground Storage;
3) [352.30] - Non-Recoverable Natural Gas;
4) [361.00] - Structures-Other Store Plant;
5) [362.00] - Gas Holders;
6) [363.30] - Compressor Equipment;
7) [371.70] - Other Equipment-Transmission-Monat;
8) [386.10] - Other Property on Customers' Premises-LP Gas Systems;
9) [386.90] - Other Property on Customers' Premises-Midwest

Q. What is Staff's recommendation for depreciation rates for the Company's remaining 35 accounts?

A. Staff's recommendation for 34 of the remaining 35 accounts is to assign depreciation rates, determined from the ordered ASL's, for each account. The other account, [305.00] Structures & Improvements, has a currently ordered zero percent depreciation rate. In addition to the "Big 7 Accounts," I also performed an actuarial analysis of the historical plant data in Account [305.00]. Currently, the reserve for Account [305.00] is not fully accrued. Based on those results, an ASL of 61 years and a corresponding depreciation rate of 1.64 % are recommended for this account.

Q. Has Staff determined an amount of net salvage cost that should be included as an annual expense in this case?

A. Yes. Staff has determined that approximately $4 Million of net salvage cost should be included as an annual expense in this case. The determination of this value is discussed in Staff witness Doyle Gibbs' testimony.

STAFF'S PROPOSAL

Q. Can you provide a summary of Staff's proposal for depreciation rates, annual accrual reductions and recommended treatment of net salvage costs?

A. Yes. Staff's position is:

1) That depreciation rates include only the recovery of original capital plant cost;

2) That there be a net reduction to the annual accrual of approximately $8 Million, achieved through reduced depreciation rates, allocated as follows:

I. A net reduction of approximately $1 Million to annual accrual due to changes in plant life;

II. A net reduction of approximately $2 Million to annual accrual due to expensing net salvage costs;

III. A reduction of approximately $5 Million to annual accrual due to the Company's over-accruing approximately $125 Million in prior years.

3) That a net salvage expense of approximately $4 Million be included as an annual expense by Staff auditors; and

4) Accounts ([307.00]; [352.00]; [352.30]; [361.00]; [362.00]; [363.30]; [371.70]; [386.10]; [386.90]) that have an accrued reserve greater

than plant balance will not accrue depreciation expense (i.e., zero percent depreciation rate) to the reserve until those accounts' accrued reserve no longer exceeds plant balance, and that one account [305.00] start accruing depreciation expense.

Q. What is Staff's proposal for depreciation rates?

A. Staff proposes the Commission order the depreciation rates, presented in Schedule 2-7 and 2-8, **"Staff's Depreciation Rates With $ 5 Million Annual Reduction,"** as of the effective date of this case.

Q. Does this conclude your direct testimony?

A. Yes, it does.

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

In the Matter of Laclede Gas Company's Tariff To Revise Natural Gas Rates	))	Case No. GR-2001-629

AFFIDAVIT OF ROSELLA L. SCHAD

STATE OF MISSOURI	)	
	)	ss.
COUNTY OF COLE	)	

Rosella L. Schad, being of lawful age, on her oath states: that she has participated in the preparation of the foregoing Direct Testimony in question and answer form, consisting of 24 pages to be presented in the above case; that the answers in the foregoing Direct Testimony were given by her; that she has knowledge of the matters set forth in such answers; and that such matters are true and correct to the best of her knowledge and belief.

Rosella L. Schad

Rosella L. Schad

Subscribed and sworn to before me this 10th day of October 2001.

Toni M. Charlton

TONI M. CHARLTON
NOTARY PUBLIC STATE OF MISSOURI
COUNTY OF COLE
My Commission Expires December 28, 2004

CASE PROCEEDING PARTICIPATION

ROSELLA L. SCHAD

COMPANY	CASE NO.
Iamo Telephone Company	TT-2001-116
Peace Valley Telephone Company	TT-2001-118
Holway Telephone Company	TT-2001-119
KLM Telephone Company	TT-2001-120
Ozark Telephone Company	TC-2001-402
Osage Water Company	SR-2000-556
Osage Water Company	WR-2000-557
Northeast Missouri Rural Telephone Company	TR-2001-344
Oregon Farmers Mutual Telephone Company	TT-2001-328

Schedule 1

Laclede Gas Company
Case No. GR-2001-629

Depreciation Rate Determination Spreadsheet

ACCOUNT NUMBER	ACCOUNT	9/30/00 PLANT BALANCE ($)	9/30/00 ACCRUED RESERVE BALANCE ($)	DEPRECIATION RATES (%) ORDERED	AVERAGE SERVICE LIFE (YEARS) ORDERED	NET SALVAGE (%) ORDERED
305.00	STRUCTURES & IMPROVEMENTS	897,804	645,969	0.00%	60.5	0
307.00	OTHER POWER EQUIPMENT	119,049	122,944	2.63%	38.0	0
311.00	LPG EQUIPMENT	2,888,171	1,721,866	3.23%	31.0	0
311.10	LPG STORAGE CAVERNS	4,804,094	4,548,048	1.00%	100.0	0
351.20	COMPRESSOR STATION STRUCTURES	566,174	481,443	3.13%	32.0	0
351.40	OTHER STRUCTURES-UND. GND. STOR.	825,231	683,585	1.98%	53.0	0
352.00	WELLS-UND GND. STOR.	5,878,140	6,104,797	1.17%	88.0	0
352.20	RESERVOIRS-UND. GND. STOR.	245,023	177,475	1.27%	79.0	0
352.30	NON-RECOVERABLE NATURAL GAS	2,186,039	2,406,384			
352.40	WELLS-OIL & VENT GAS	650,359	468,661	3.08%	40.0	(78)
353.00	LINES-UND. GND. STOR.	2,352,223	2,319,014	1.50%	75.0	(18)
354.00	COMPRESSOR STATION EQPT	2,398,164	2,025,374	2.04%	49.0	0
355.00	MEASURING & REGULATING EQPT.	1,806,971	1,662,430	2.66%	43.0	(14)
356.00	PURIFICATION EQPT.	270,025	203,750	2.58%	44.0	(13)
357.00	OTHER EQPT.	44,199	16,682	2.36%	65.0	(37)
361.00	STRUCTURES-OTHER STORE PLANT	272,944	440,259	22.20%		
362.00	GAS HOLDERS	1,883,358	2,127,081	0.00%		
363.30	COMPRESSOR EAQUIPMENT	810,861	952,999			
371.70	OTHER EQUIPMENT-TRANSMISSION-MONAT	17,181	19,311			
375.10	STRU. & IMPR.-DISTR.-MEAS. & REG.	185,974	55,540	1.11%	90.0	0
375.20	STRU. & IMPR.-DISTR.-SVC. CENTERS	5,715,947	1,593,282	1.45%	79.0	(14)
375.30	STRU. & IMPR.-DISTR.-GARAGES	638,470	181,213	1.64%	72.0	(18)
375.40	STRU. & IMPR.-DISTR.-ST.CHARLES	37,807	756	1.11%	72.0	0
375.70	STRU. & IMPR.-MONAT	61,488	54,708	2.00%	50.0	0
375.90	STRU. & IMPR.-MIDWEST	3,982	(5,038)	2.00%	50.0	0
376.01	MAINS-STEEL* (INCLUDES ACCOUNT 367.70 TRANSMISSION MAINS)	187,878,444	118,085,575	1.28%	83.0	(7)
376.02	MAINS-CAST IRON*	14,912,834	6,200,081	2.43%	80.0	(95)
376.03	MAINS-PLASTIC & COPPER*	134,567,507	27,425,460	1.91%	53.0	(1)
378.01	MEASURING & REGULATING STATION EQUIPMENT	5,064,339	883,270	3.69%		
379.01	MEASURING & REGULATING STATION EQUIPMENT-CITY GATE CHECK STATIONS	2,090,340	354,007	2.26%		
380.01	SERVICES-STEEL*	38,350,760	31,890,036	3.55%	45.0	[illegible]
380.02	SERVICES-PLASTIC & COPPER*	262,733,495	89,124,590	2.61%	44.0	[illegible]
381.01	METERS*	[illegible]	24,368,866	2.89%	35.0	[illegible]
383.01	HOUSE REGULATORS*	[illegible]	4,647,729	2.44%	[illegible]	0

Laclede Gas Company
Case No. GR-2001-629

Depreciation Rate Determination Spreadsheet

ACCOUNT NUMBER	ACCOUNT	9/30/00 PLANT BALANCE ($)	9/30/00 ACCRUED RESERVE BALANCE ($)	DEPRECIATION RATES (%) ORDERED	AVERAGE SERVICE LIFE (YEARS) ORDERED	NET SALVAGE (%) ORDERED
385.01	COMMERCIAL & INDUSTRIAL REGULATING EQUIPMENT	7,599,307	1,567,251	3.85%	28.0	(8)
386.10	OTHER PROPERTY ON CUSTOMERS' PREMISES LP GAS SYSTEMS	14,782	117,077			
386.90	OTHER PROPERTY ON CUSTOMERS' PREMISES-MIDWEST	12,376	32,731			
387.01	OTHER EQUIPMENT	275,725	212,652	10.92%	28.0	(206)
390.01	STRUCTURES & IMPROVEMENTS	332,549	61,006	2.00%	50.0	0
391.01	OFFICE FURNITURE & EQUIPMENT	2,974,584	879,074	3.23%	31.0	0
391.02	DATA PROCESSING SYSTEMS	9,948,100	6,250,720	10.00%	10.0	0
391.03	MECHANICAL OFFICE EQUIPMENT	457,569	(193,706)	9.67%	10.0	3
392.01	TRANSPORTATION EQUIPMENT-AUTOMOBILES	4,450,298	3,010,515	15.17%	6.0	9
392.02	TRANSPORTATION EQUIPMENT-TRUCKS	13,612,582	6,037,557	8.63%	11.0	5
393.01	STORES EQUIPMENT	334,462	184,857	2.54%	37.0	6
394.01	TOOLS, SHOP & GARAGE EQUIPMENT	7,564,777	2,017,635	2.36%	42.0	1
395.01	LABORATORY EQUIPMENT	223,628	104,380	4.55%	22.0	0
396.01	POWER OPERATED EQUIPMENT	11,441,208	5,858,280	7.80%	12.0	6
396.02	POWER OPERATED EQUIPMENT-TRUCKS	4,181,182	2,259,191	8.16%	12.0	2
397.01	COMMUNICATIONS EQUIPMENT	1,826,069	754,054	6.21%	16.0	0
398.01	MISCELLANEOUS EQUIPMENT	391,464	168,149	3.73%	26.0	3
TOTALS		876,216,843	361,249,570			

Laclede Gas Company
Case No. GR-2001-629

Depreciation Rate Determination Spreadsheet

ACCOUNT NUMBER	ACCOUNT	IOWA CURVE (CURRENT)	9/30/00 ANNUAL ACCRUAL ($)	COMPANY PROPOSED DEPRECIATION RATES (%)	COMPANY PROPOSED NET SALVAGE (%)	ANNUAL ACCRUAL ($) COMPANY PROPOSED
305.00	STRUCTURES & IMPROVEMENTS	R0.5	0	0.00%	0	0
307.00	OTHER POWER EQUIPMENT		3,131	2.63%	0	3,131
311.00	LPG EQUIPMENT	R1	93,288	3.23%	0	93,288
311.10	LPG STORAGE CAVERNS	SQ	48,041	1.00%	0	48,041
351.20	COMPRESSOR STATION STRUCTURES	L0	17,721	3.13%	0	17,721
351.40	OTHER STRUCTURES-UND. GND. STOR.	L0	16,340	1.98%	0	16,340
352.00	WELLS-UND GND. STOR.	SQ	68,774	1.17%	0	68,774
352.20	RESERVOIRS-UND. GND. STOR.	SQ	3,112	1.27%	0	3,112
352.30	NON-RECOVERABLE NATURAL GAS		0			0
352.40	WELLS-OIL & VENT GAS	R3	20,031	3.08%	(78)	20,031
353.00	LINES-UND. GND. STOR.	R2	35,283	1.50%	(18)	35,283
354.00	COMPRESSOR STATION EQPT	S2.5	48,923	2.04%	0	48,923
355.00	MEASURING & REGULATING EQPT.	S1	48,065	2.66%	(14)	48,065
356.00	PURIFICATION EQPT.	S0.5	6,967	2.58%	(13)	6,967
357.00	OTHER EQPT.	S1.5	1,043	2.36%	(37)	1,043
361.00	STRUCTURES-OTHER STORE PLANT		60,594	22.20%		60,594
362.00	GAS HOLDERS		0	0.00%		0
363.30	COMPRESSOR EAQUIPMENT		0			0
371.70	OTHER EQUIPMENT-TRANSMISSION-MONAT		0			0
375.10	STRU. & IMPR.-DISTR.-MEAS. & REG.	L4	2,064	1.11%	0	2,064
375.20	STRU. & IMPR.-DISTR.-SVC. CENTERS	R0.5	82,881	1.45%	(14)	82,881
375.30	STRU. & IMPR.-DISTR.-GARAGES	R0.5	10,471	1.64%	(18)	10,471
375.40	STRU. & IMPR.-DISTR.-ST.CHARLES	L4	420	1.11%	0	420
375.70	STRU. & IMPR.-MONAT	R0.5	1,230	2.00%	0	1,230
375.90	STRU. & IMPR.-MIDWEST		80	2.00%	0	80
376.01	MAINS--STEEL* (INCLUDES ACCOUNT 367.70 TRANSMISSION MAINS)	S0.5	2,404,844	1.72%	(43)	3,231,509
376.02	MAINS--CAST IRON*	R0.5	362,382	2.43%	(95)	362,382
376.03	MAINS--PLASTIC & COPPER*	R1	2,570,239	2.55%	(35)	3,431,474
378.01	MEASURING & REGULATING STATION EQUIPMENT	L0	186,874	3.69%		186,874
379.01	MEASURING & REGULATING STATION EQUIPMENT-CITY GATE CHECK STATIONS	L0.5	47,242	2.26%		47,242
380.01	SERVICES STEEL*	R0.5	1,361,452	4.67%		1,790,980
380.02	SERVICES PLASTIC & COPPER*	R2.5	6,857,344	4.39%		11,534,000
381.01	METERS*	L0.5	3,209,398	2.83%	0	3,209,398
383.01	HOUSE REGULATORS*	R3	390,757	2.44%	0	390,757

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Laclede Gas Company
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Depreciation Rate Determination Spreadsheet

ACCOUNT NUMBER	ACCOUNT	IOWA CURVE (CURRENT)	9/30/00 ANNUAL ACCRUAL ($)	COMPANY PROPOSED DEPRECIATION RATES (%)	COMPANY PROPOSED NET SALVAGE (%)	ANNUAL ACCRUAL ($) COMPANY PROPOSED
385.01	COMMERCIAL & INDUSTRIAL REGULATING EQUIPMENT		292,573	3.85%	(8)	292,573
386.10	OTHER PROPERTY ON CUSTOMERS' PREMISES LP GAS SYSTEMS		0			0
386.90	OTHER PROPERTY ON CUSTOMERS' PREMISES-MIDWEST		0			0
387.01	OTHER EQUIPMENT		30,109	10.92%	(206)	30,109
390.01	STRUCTURES & IMPROVEMENTS		6,651	2.00%	0	6,651
391.01	OFFICE FURNITURE & EQUIPMENT	L0	96,079	3.23%	0	96,079
391.02	DATA PROCESSING SYSTEMS	S1.5	994,810	10.00%	0	994,810
391.03	MECHANICAL OFFICE EQUIPMENT	L1.5	44,247	9.67%	3	44,247
392.01	TRANSPORTATION EQUIPMENT-AUTOMOBILES	L2.5	675,110	15.17%	9	675,110
392.02	TRANSPORTATION EQUIPMENT-TRUCKS	L3	1,174,766	8.63%	5	1,174,766
393.01	STORES EQUIPMENT	L2	8,495	2.54%	6	8,495
394.01	TOOLS, SHOP & GARAGE EQUIPMENT	R0.5	178,529	2.36%	1	178,529
395.01	LABORATORY EQUIPMENT	L2	10,175	4.55%	0	10,175
396.01	POWER OPERATED EQUIPMENT	L2	892,414	7.80%	6	892,414
396.02	POWER OPERATED EQUIPMENT-TRUCKS	L4	341,184	8.16%	2	341,184
397.01	COMMUNICATIONS EQUIPMENT	S2.5	113,399	6.21%	0	113,399
398.01	MISCELLANEOUS EQUIPMENT	R0.5	14,602	3.73%	3	14,602
TOTALS			22,832,074			29,626,155

Laclede Gas Company
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Depreciation Rate Determination Spreadsheet

ACCOUNT NUMBER	ACCOUNT	STAFF DEPRECIATION RATES (%) WITH STAFF ASL	AVERAGE SERVICE LIFE (YEARS) STAFF PROPOSED	IOWA CURVE (STAFF PROPOSED)	ANNUAL ACCRUAL ($) STAFF PROPOSED	THEORETICAL ACCRUAL "BIG 7 ACCOUNTS"
305.00	STRUCTURES & IMPROVEMENTS	1.64%	61	R1	14,724	
307.00	OTHER POWER EQUIPMENT	0.00%	38	R1	0	
311.00	LPG EQUIPMENT	3.23%	31	R1	93,288	
311.10	LPG STORAGE CAVERNS	1.00%	100	SQ	48,041	
351.20	COMPRESSOR STATION STRUCTURES	3.13%	32	L0	17,721	
351.40	OTHER STRUCTURES-UND. GND. STOR.	1.98%	53	L0	16,340	
352.00	WELLS-UND GND. STOR.	0.00%	88	SQ	0	
352.20	RESERVOIRS-UND. GND. STOR.	1.27%	79	SQ	3,112	
352.30	NON-RECOVERABLE NATURAL GAS	0.00%	45	SQ	0	
352.40	WELLS-OIL & VENT GAS	3.08%	40	R3	20,031	
353.00	LINES-UND. GND. STOR.	1.50%	75	R2	35,283	
354.00	COMPRESSOR STATION EQPT	2.04%	49	S2.5	48,923	
355.00	MEASURING & REGULATING EQPT.	2.66%	43	S1	48,065	
356.00	PURIFICATION EQPT.	2.58%	44	S0.5	6,967	
357.00	OTHER EQPT.	2.36%	65	S1.5	1,043	
361.00	STRUCTURES-OTHER STORE PLANT	0.00%	98	R1	0	
362.00	GAS HOLDERS	0.00%	98	R1	0	
363.30	COMPRESSOR EAQUIPMENT	0.00%	80	SQ	0	
371.70	OTHER EQUIPMENT-TRANSMISSION-MONAT	0.00%	65	S1.5	0	
375.10	STRU. & IMPR.-DISTR.-MEAS. & REG.	1.11%	90	L4	2,064	
375.20	STRU. & IMPR.-DISTR.-SVC. CENTERS	1.45%	79	R0.5	82,881	
375.30	STRU. & IMPR.-DISTR.-GARAGES	1.64%	72	R0.5	10,471	
375.40	STRU. & IMPR.-DISTR.-ST.CHARLES	1.11%	90	L4	420	
375.70	STRU. & IMPR.-MONAT	2.00%	50	R0.5	1,230	
375.90	STRU. & IMPR.-MIDWEST	2.00%	50	R0.5	80	
376.01	MAINS–STEEL* (INCLUDES ACCOUNT 367.70 TRANSMISSION MAINS)	1.27%	79	R2	2,386,056	50,851,429
376.02	MAINS–CAST IRON*	1.25%	80	R0.5	186,410	7,700,074
376.03	MAINS–PLASTIC & COPPER*	1.43%	70	R3	1,924,315	11,898,521
378.01	MEASURING & REGULATING STATION EQUIPMENT	3.69%		L0	186,874	
379.01	MEASURING & REGULATING STATION EQUIPMENT-CITY GATE CHECK STATIONS	2.26%		L0.5	47,242	
380.01	SERVICES–STEEL*	2.27%	44	R0.5	870,562	15,506,472
380.02	SERVICES–PLASTIC & COPPER*	2.22%	45	R2	5,832,684	59,806,289
381.01	METERS*	2.63%	38	S0.5	2,982,529	27,001,180
383.01	HOUSE REGULATORS*	2.13%	47	R3	341,112	4,066,371

Laclede Gas Company
Case No. GR-2001-629

Depreciation Rate Determination Spreadsheet

ACCOUNT NUMBER	ACCOUNT	STAFF DEPRECIATION RATES (%) WITH STAFF ASL	AVERAGE SERVICE LIFE (YEARS) STAFF PROPOSED	IOWA CURVE (STAFF PROPOSED)	ANNUAL ACCRUAL ($) STAFF PROPOSED	THEORETICAL ACCRUAL "BIG 7 ACCOUNTS"
385.01	COMMERCIAL & INDUSTRIAL REGULATING EQUIPMENT	3.85%	28	S0	292,573	
386.10	OTHER PROPERTY ON CUSTOMERS' PREMISES LP GAS SYSTEMS	0.00%	26	R0.5	0	
386.90	OTHER PROPERTY ON CUSTOMERS' PREMISES-MIDWEST	0.00%	26	R0.5	0	
387.01	OTHER EQUIPMENT	10.92%	28	L1.5	30,109	
390.01	STRUCTURES & IMPROVEMENTS	2.00%	50	L0.5	6,651	
391.01	OFFICE FURNITURE & EQUIPMENT	3.23%	31	L0	96,079	
391.02	DATA PROCESSING SYSTEMS	10.00%	10	S1.5	994,810	
391.03	MECHANICAL OFFICE EQUIPMENT	9.67%	10	L1.5	44,247	
392.01	TRANSPORTATION EQUIPMENT-AUTOMOBILES	15.17%	6	L2.5	675,110	
392.02	TRANSPORTATION EQUIPMENT-TRUCKS	8.63%	11	L3	1,174,766	
393.01	STORES EQUIPMENT	2.54%	37	L2	8,495	
394.01	TOOLS, SHOP & GARAGE EQUIPMENT	2.36%	42	R0.5	178,529	
395.01	LABORATORY EQUIPMENT	4.55%	22	L2	10,175	
396.01	POWER OPERATED EQUIPMENT	7.80%	12	L2	892,414	
396.02	POWER OPERATED EQUIPMENT-TRUCKS	8.16%	12	L4	341,184	
397.01	COMMUNICATIONS EQUIPMENT	6.21%	16	S2.5	113,399	
398.01	MISCELLANEOUS EQUIPMENT	3.73%	26	R0.5	14,602	
TOTALS					20,081,611	176,830,336

Laclede Gas Company
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Depreciation Rate Determination Spreadsheet

ACCOUNT NUMBER	ACCOUNT	STAFF DEPRECIATION RATES (%) WITH $5 MILLION ANNUAL REDUCTION	STAFF ANNUAL ACCRUAL WITH $5 MILLION ANNUAL REDUCTION	STAFF DEPRECIATION RATES (%) WITH $10 MILLION ANNUAL REDUCTION	STAFF ANNUAL ACCRUAL WITH $10 MILLION ANNUAL REDUCTION
305.00	STRUCTURES & IMPROVEMENTS	1.64%	14,724	1.64%	14,724
307.00	OTHER POWER EQUIPMENT	0.00%	0	0.00%	0
311.00	LPG EQUIPMENT	3.23%	93,288	3.23%	93,288
311.10	LPG STORAGE CAVERNS	1.00%	48,041	1.00%	48,041
351.20	COMPRESSOR STATION STRUCTURES	3.13%	17,721	3.13%	17,721
351.40	OTHER STRUCTURES-UND. GND. STOR.	1.98%	16,340	1.98%	16,340
352.00	WELLS-UND GND. STOR.	0.00%	0	0.00%	0
352.20	RESERVOIRS-UND. GND. STOR.	1.27%	3,112	1.27%	3,112
352.30	NON-RECOVERABLE NATURAL GAS	0.00%	0	0.00%	0
352.40	WELLS-OIL & VENT GAS	3.08%	20,031	3.08%	20,031
353.00	LINES-UND. GND. STOR.	1.50%	35,283	1.50%	35,283
354.00	COMPRESSOR STATION EQPT	2.04%	48,923	2.04%	48,923
355.00	MEASURING & REGULATING EQPT.	2.66%	48,065	2.66%	48,065
356.00	PURIFICATION EQPT.	2.58%	6,967	2.58%	6,967
357.00	OTHER EQPT.	2.36%	1,043	2.36%	1,043
361.00	STRUCTURES-OTHER STORE PLANT	0.00%	0	0.00%	0
362.00	GAS HOLDERS	0.00%	0	0.00%	0
363.30	COMPRESSOR EAQUIPMENT	0.00%	0	0.00%	0
371.70	OTHER EQUIPMENT-TRANSMISSION-MONAT	0.00%	0	0.00%	0
375.10	STRU. & IMPR.-DISTR.-MEAS. & REG.	1.11%	2,064	1.11%	2,064
375.20	STRU. & IMPR.-DISTR.-SVC. CENTERS	1.45%	82,881	1.45%	82,881
375.30	STRU. & IMPR.-DISTR.-GARAGES	1.64%	10,471	1.64%	10,471
375.40	STRU. & IMPR.-DISTR.-ST.CHARLES	1.11%	420	1.11%	420
375.70	STRU. & IMPR.-MONAT	2.00%	1,230	2.00%	1,230
375.90	STRU. & IMPR.-MIDWEST	2.00%	80	2.00%	80
376.01	MAINS--STEEL* (INCLUDES ACCOUNT 367.70 TRANSMISSION MAINS)	0.83%	1,559,391	0.39%	732,726
376.02	MAINS--CAST IRON*	0.82%	122,285	0.39%	58,160
376.03	MAINS--PLASTIC & COPPER*	0.94%	1,264,935	0.44%	592,097
378.01	MEASURING & REGULATING STATION EQUIPMENT	3.69%	186,874	3.69%	186,874
379.01	MEASURING & REGULATING STATION EQUIPMENT-CITY GATE CHECK STATIONS	2.26%	47,242	2.26%	47,242
380.01	SERVICES-STEEL*	1.49%	574,426	0.70%	268,455
380.02	SERVICES-PLASTIC & COPPER*	1.45%	3,809,636	0.68%	1,786,588
381.01	METERS*	1.72%	1,950,552	0.82%	929,914
383.01	HOUSE REGULATORS*	1.40%	224,205	0.66%	105,697

Laclede Gas Company
Case No. GR-2001-629

Depreciation Rate Determination Spreadsheet

ACCOUNT NUMBER	ACCOUNT	**STAFF DEPRECIATION RATES (%) WITH $5 MILLION ANNUAL REDUCTION**	STAFF ANNUAL ACCRUAL WITH $5 MILLION ANNUAL REDUCTION	STAFF DEPRECIATION RATES (%) WITH $10 MILLION ANNUAL REDUCTION	STAFF ANNUAL ACCRUAL WITH $10 MILLION ANNUAL REDUCTION
385.01	COMMERCIAL & INDUSTRIAL REGULATING EQUIPMENT	**3.85%**	292,573	3.85%	292,573
386.10	OTHER PROPERTY ON CUSTOMERS' PREMISES LP GAS SYSTEMS	**0.00%**	0	0.00%	0
386.90	OTHER PROPERTY ON CUSTOMERS' PREMISES-MIDWEST	**0.00%**	0	0.00%	0
387.01	OTHER EQUIPMENT	**10.92%**	30,109	10.92%	30,109
390.01	STRUCTURES & IMPROVEMENTS	**2.00%**	6,651	2.00%	6,651
391.01	OFFICE FURNITURE & EQUIPMENT	**3.23%**	96,079	3.23%	96,079
391.02	DATA PROCESSING SYSTEMS	**10.00%**	994,810	10.00%	994,810
391.03	MECHANICAL OFFICE EQUIPMENT	**9.67%**	44,247	9.67%	44,247
392.01	TRANSPORTATION EQUIPMENT-AUTOMOBILES	**15.17%**	675,110	15.17%	675,110
392.02	TRANSPORTATION EQUIPMENT-TRUCKS	**8.63%**	1,174,766	8.63%	1,174,766
393.01	STORES EQUIPMENT	**2.54%**	8,495	2.54%	8,495
394.01	TOOLS, SHOP & GARAGE EQUIPMENT	**2.36%**	178,529	2.36%	178,529
395.01	LABORATORY EQUIPMENT	**4.55%**	10,175	4.55%	10,175
396.01	POWER OPERATED EQUIPMENT	**7.80%**	892,414	7.80%	892,414
396.02	POWER OPERATED EQUIPMENT-TRUCKS	**8.16%**	341,184	8.16%	341,184
397.01	COMMUNICATIONS EQUIPMENT	**6.21%**	113,399	6.21%	113,399
398.01	MISCELLANEOUS EQUIPMENT	**3.73%**	14,602	3.73%	14,602
TOTALS			15,060,372		10,031,579