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**MISSOURI PUBLIC SERVICE COMMISSION**

**CASE NO. GR-99-315**

**SUPPLEMENTAL REBUTTAL TESTIMONY**

**OF**

**WILLIAM M. STOUT, P.E.**

**ON**

**BEHALF OF**

**LACLEDE GAS COMPANY  
AND  
UNION ELECTRIC COMPANY  
d/b/a AmerenUE**

St. Louis, Missouri  
September, 2004

**Exhibit No.** 137  
**Case No(s).** GR-99-315  
**Date** 9-22-04 **Rptr** TS

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**SUPPLEMENTAL REBUTTAL TESTIMONY**

**OF**

**WILLIAM M. STOUT, P.E.**

**CASE NO. GR-99-315**

**I. INTRODUCTION**

**Q. Please state your name and business address.**

A. My name is William M. Stout. My business address is 207 Senate Avenue, Camp Hill, Pennsylvania.

**Q. Have you previously submitted testimony in this proceeding?**

A. Yes, my Supplemental Direct Testimony in this proceeding was submitted on August 20, 2004.

**Q. What is the purpose of your Supplemental Rebuttal Testimony?**

A. The purpose of my Supplemental Rebuttal Testimony is to address the very few issues discussed in the Supplemental Direct Testimony of Rosella L. Schad; the greater number of issues that she failed to raise in her Supplemental Direct Testimony but subsequently raised in her September 3, 2004, deposition; and portions of the Direct, Rebuttal and Surrebuttal Testimonies of Paul W. Adam, as adopted by Mrs. Schad.

**Q. What are the subjects of your Supplemental Rebuttal Testimony?**

A. The subjects of my Supplemental Rebuttal Testimony are (1) the proper issue in this case; that is, addressing the future net salvage for the property that is in service, including the reasonableness of the estimates that have long been used to determine that future net salvage, (2) the several and inconsistent positions related to accruals for net salvage that have been taken by the Missouri Public Service Commission

1 (the "Commission") and its Staff (the "Staff") during the past 14 years, (3) my survey of  
2 experts in the field relating to their position on accruals for net salvage, (4) the core  
3 concerns of Staff and the manner in which the overall regulatory model addresses these  
4 concerns, and (5) the difference between operating and capital costs and the manner in  
5 which they should be recognized in the cost of service.

6

7 **II. THE ISSUE IN THIS CASE/ESTIMATES OF NET SALVAGE**

8 **Q. On page 2, lines 19 through 21 of her Supplemental Direct Testimony,**  
9 **Mrs. Schad states "The issue that remains in this case is the appropriate cost to**  
10 **remove retired property, one that is known and measurable to a sufficient degree to**  
11 **be included in the rates charged to Laclede's customers." Do you agree that the**  
12 **issue in this case relates to the cost to remove retired property?**

13 **A.** No, I do not. In my view, the issue is not the cost to remove *retired*  
14 *property*; rather, the issue is the cost to remove the *property in service*. This is a case  
15 about depreciation, the loss in service value not restored by current maintenance of  
16 *property in service*. Part of that service value that is lost during each year of service is  
17 that year's share of the negative net salvage related to the *property in service*. That is, the  
18 net salvage that will be incurred or realized at the end of the life of the *property in*  
19 *service*.

20 The original proposal by Mr. Adam, as adopted by Mrs. Schad, establishes an  
21 allowance for net salvage that represents an average of the past net salvage costs for  
22 *retired property* -- costs that were incurred to remove or retire property that is no longer  
23 rendering service to customers. Such costs should already have been recovered from the

1 customers who received service from that retired property and, as an absolute dollar  
2 amount, represent a very poor proxy for the amounts that should be recovered from  
3 today's customers. The costs that should be recovered from today's customers are the  
4 costs related to today's *property in service*, property that is now providing service to  
5 these customers. The service lives that are estimated for depreciation purposes must be  
6 applicable to the *property in service*. So too, the net salvage that is estimated for  
7 depreciation purposes must be applicable to the *property in service*. Thus, it is the cost of  
8 retiring the *property in service* that is the issue in this proceeding.

9           **Q.     Is the cost of retiring the property in service "known and measurable**  
10 **to a sufficient degree to be included in rates..."?**

11           **A.     As discussed later in this testimony, Mrs. Schad has misapplied the**  
12 **"known and measurable" concept in this context. Nevertheless, to the extent it has**  
13 **relevance to this issue, net salvage estimates are based on the same kind of known and**  
14 **measurable data as other estimates used by Staff, including those used to establish service**  
15 **lives that result in the allocation of known capital expenditures over a period of many**  
16 **years. Specifically, we do know that property will be retired. We know this, in part,**  
17 **because we can see, in Laclede's books and records (as well as the books and records of**  
18 **the dozens of other utilities with whom I have experience) regular and repeated instances**  
19 **of retirements of property such as gas mains, service lines, poles, wires, etc. We know**  
20 **that costs will be incurred related to retirement of this property – again because we have**  
21 **seen that consistent history for utilities, including Laclede. Further, we know that the**  
22 **property will not live forever. It will be retired someday. And, as stated above, the**  
23 **amount of net salvage that will be incurred or realized when it is retired can be measured**

1 with a degree of accuracy no different than the accuracy of the estimates of service life,  
2 estimates which Staff has no trouble using.

3 Estimates of net salvage are based on informed judgment incorporating the results  
4 of statistical analyses in the same manner that estimates of service life are based on  
5 informed judgment incorporating the results of statistical analyses. Under the standard  
6 approach that I and virtually all experts and authoritative texts in the field of depreciation  
7 recommend, the analyses of net salvage relate the historical costs of retiring property to  
8 the original cost of that property. These are the same retirements that are used in the  
9 analyses of service life. The net salvage analyses provide averages of the percent of the  
10 original cost that *has been* required to retire property as an indication of the percent of the  
11 original cost that *will be* required to retire the property in service. Such indications are  
12 then considered along with other factors in arriving at an estimate of the net salvage  
13 related to the property in service.

14 **Q. In your experience, how well have estimates of future net salvage costs**  
15 **predicted actual net salvage costs?**

16 **A.** It has been my experience, gained over more than 30 years of working as a  
17 depreciation professional in the utility industry, that net salvage as a percent of the  
18 original cost retired has become more and more negative during the past 50 years. As a  
19 result, estimates that are based largely on the historical indications of net salvage, as a  
20 percent of the original cost retired, tend to understate the future net salvage costs. That  
21 is, the use of such estimates tends to result in under-recovery or under-charges to  
22 customers, not over-recovery or over-charges as suggested by Staff. Significant  
23 adjustments to these historical indications for the greater age of future retirements are

1 required, but not often done, in order to approach the more likely level of future net  
2 salvage costs. Thus, the use of net salvage estimates, in accordance with the standard  
3 approach recommended by me and virtually all of the authoritative experts and texts in  
4 the field of depreciation, that are predicated largely on the historical indications of net  
5 salvage, as a percent of the original cost retired, provide a very conservative and  
6 reasonable measure of the future net salvage. I would add that, while my experience has  
7 been that net salvage estimates under the standard approach have conservatively  
8 understated actual net salvage, the Staff's approach would without doubt severely  
9 understate actual net salvage costs incurred to retire plant currently in service.

10 **Q. Please illustrate your contention that the standard approach produces**  
11 **conservative estimates of net salvage percents?**

12 **A.** I will use Account 380, Services, for Laclede Gas Company to illustrate  
13 the conservative nature of these estimates. This account is segregated into two groups:  
14 (1) Account 380.10 Steel Services and (2) Account 380.20, Copper and Plastic Services.  
15 The traditional analyses that are used in support of the standard approach are presented in  
16 the workpapers of Mr. Adam. For steel services, the net salvage as a percent of original  
17 cost retired averaged negative 112 percent during the period 1987 to 1996 and negative  
18 117 percent during the period 1992 to 1996. For copper and plastic services, the net  
19 salvage as a percent of original cost retired averaged negative 93 percent during the  
20 period 1987 to 1996 and negative 98 percent during the period 1992 to 1996. Typically,  
21 these percents would serve as a basis for the forecast of future net salvage as a percent of  
22 the original cost of plant in service. Thus, under the standard approach, net salvage  
23 estimates for these two groups might be negative 115 percent for steel services and

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1 negative 95 percent for copper and plastic.

2               In order to demonstrate the conservative nature of such estimates, I have  
3 prepared Schedule WMS-7. Schedule WMS-7 presents the net salvage amounts during  
4 the period 1990 through 2000 for these same two groups of services: (1) steel and (2)  
5 copper and plastic. Also shown are the numbers of feet of service line retired in each  
6 year for these two groups as well as the average cost per foot to retire services. The  
7 average cost to retire a steel service during the period 1990-2000 was \$4.20 per foot as  
8 shown in column 4 on line 13. Application of this historical average to the number of  
9 feet of steel services presently in service, 10,649,294 feet, indicates future net salvage  
10 will be \$44,687,761, or 118 percent of the original cost. This amount assumes that there  
11 will be no inflation of the average cost per foot to retire a service and yet it is more  
12 negative than the historical indication of negative 115 percent for this group as discussed  
13 above. That is, if there is no future inflation in the cost of retiring services, the future net  
14 salvage to retire the 10,649,294 feet of steel services will be 118 percent of the original  
15 cost of these services. Thus, an estimate based on the historical indications of negative  
16 115 percent would actually assume that there would be a reduction in the average cost per  
17 foot to retire steel services.

18               Assuming that this group of services has a remaining life of 10 years and  
19 that in fact there will be inflation during that period that averages 3 percent per year, the  
20 amount of future net salvage would increase by a factor of 1.34  $((1.03)^{10})$  to negative  
21 158 percent (118 percent x 1.34), far greater than the historical indication of negative 115  
22 percent shown in the workpapers of Mr. Adam, Exhibit No. 124. Also note, that the net  
23 salvage percent recommended by Mr. Adam and adopted by Mrs. Schad is only negative



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1 60 percent and, as discussed below, only provides for the recently observed absolute  
2 amounts of net salvage costs.

3 With respect to the copper and plastic services, the average cost to retire such  
4 services during the period 1990-2000 was \$5.72 per foot. Application of this historical  
5 average to the number of feet of copper and plastic services presently in service,  
6 27,199,888 feet, indicates future net salvage will be \$155,610,435, or 66 percent of the  
7 original cost. Assuming that this younger group of services has a remaining life of 20  
8 years and inflation during that period averages 3 percent, the amount of future net salvage  
9 would increase by a factor of 1.81  $((1.03)^{20})$  to negative 119 percent (66 percent x  
10 1.81), far greater than the historical indications of negative 95 percent shown in the  
11 workpapers of Mr. Adam, Exhibit No. 124. If future inflation is only 1.8 percent per  
12 year, the current cost per foot will increase to the point of producing net salvage costs of  
13 equal to 95 percent of the original cost of these services.  $((1.018)^{20} \times 66 = 94)$ . Also  
14 note that the net salvage percent recommended by Mr. Adam and adopted by Mrs. Schad  
15 is only negative 15 percent and, as discussed below, only provides for the recently  
16 observed absolute amounts of net salvage costs.

17 In summary, for steel services, Staff has recommended a net salvage  
18 percent of negative 60 percent, the standard method yields negative 118 percent, and  
19 based on the trend of increasing costs of retirement, a 3 percent average inflation per year  
20 will yield a net salvage percent of negative 158 percent. For copper and plastic services,  
21 Staff has recommended a net salvage percent of 15 percent, while the standard method  
22 calculates net salvage at negative 66 percent, and with 3 percent inflation, the net salvage  
23 percent would be negative 119 percent. These examples illustrate that net salvage

1 estimates under the standard approach, predicated largely on the historical indications of  
2 net salvage as a percent of the original cost retired, tend to understate the probable  
3 amount of future net salvage. As a result, the use of such estimates results in a  
4 conservative measure of future net salvage and does not lead to over-recovery or over-  
5 charges to customers. Comparatively, the Staff's method severely undercollects any  
6 rational estimate of future net salvage.

7 **Q. You used a future inflation rate of 3 percent in your example. How**  
8 **does this inflation rate compare with the historical inflation of costs related to the**  
9 **installation and retirement of services?**

10 **A.** A future rate of inflation of 3 percent is less than the historical rate of  
11 inflation related to the installation and retirement of services. Schedule WMS-8 presents  
12 a graph of the change in price level of steel services over the period 1912 through 2003 as  
13 well as the change in price level measured by the Consumer Price Index. The cost index  
14 for steel services that I have used is the Handy-Whitman Index of Public Utility  
15 Construction Costs for Steel Services in the North Central Region of the United States,  
16 the region that includes Missouri. The average rate of inflation reflected in this price  
17 index during the 91-year period was 4.76 percent.

18 **Q. Since the use of 3 percent resulted in future net salvage costs greater**  
19 **than the historical indications as a percent of original cost, wouldn't the use of the**  
20 **historical rate of inflation for services of 4.76 percent result in future net salvage**  
21 **costs that are even greater?**

22 **A.** Yes, it would.

23 **Q. What can be inferred about the use of net salvage *percents* based on**

1 **historical indications from your example and the historical rate of inflation?**

2 A. The use of net salvage percents that are based on historical indications of  
3 net salvage as a percent of the original cost retired assumes that the future rate of inflation  
4 of the cost to install and retire services will be substantially less than the rate of inflation  
5 during the period 1912-2003.

6 Q. You have used the term "cost of retiring". Is this term any different  
7 than the term "cost of removal"?

8 A. The terms are most often used interchangeably. However, I prefer the  
9 term "cost of retiring" as it does not imply that the plant is physically removed from its  
10 location at the end of its life in the way that "cost of removal" does.

11 Q. If the plant is not removed, but is abandoned in place, what costs of  
12 retiring are incurred?

13 A. The cost of retiring abandoned plant includes the cost of isolating it from  
14 the system to which it was once attached and other activities required to leave it in a safe  
15 condition such as purging a gas line.

16 Q. Do utilities have a legal obligation to incur these costs?

17 A. Not always. However, in many cases, prudent operating practice and  
18 safety considerations necessitate these activities and the related costs. In many cases,  
19 such as electric power distribution poles, utilities would also face customer complaints if  
20 they consistently abandoned retired poles without removing them. Thus, while a formal  
21 legal obligation does not always exist to remove retired plant, a substantial and consistent  
22 portion of retired plant is removed simply to satisfy customer demands and comply with  
23 good utility practice.

1           **Q.     Is net salvage the only future amount for which an estimate is**  
2 **required in rate regulation?**

3           A.     No, it is not. Estimates of the future amount of inflation, future growth in  
4 utility earnings, future pension costs, future earnings rates on pension funds, and future  
5 costs of decommissioning nuclear power plants are a few of the other future amounts that  
6 are routinely estimated in the course of a rate proceeding.

7           **Q.     Do other state regulatory commissions find that the cost of net salvage**  
8 **associated with currently used plant is “known and measurable” with sufficient**  
9 **precision to be included in rates?**

10          A.     Yes. The inclusion of net salvage in depreciation rates, using net salvage  
11 percentages established as I describe in my Supplemental Direct Testimony and in this  
12 testimony, is the standard ratemaking treatment of net salvage that is used by the  
13 overwhelming majority of regulatory commissions throughout the country. Staff’s  
14 position that net salvage of currently used plant is not sufficiently “known and  
15 measurable” is a position that is clearly and significantly out of the regulatory  
16 mainstream. It is also contrary to all authoritative texts and recommendations of experts  
17 in the field.

18          **Q.     In her Supplemental Direct Testimony, has Mrs. Schad correctly**  
19 **applied the “known and measurable” concept to the net salvage issue?**

20          A.     In my opinion, no. I have been involved in rate proceedings involving  
21 utilities before numerous regulatory commissions over the course of my career. The  
22 “known and measurable” concept is typically applied in making adjustments to test year  
23 values (or some other historical data used in the ratemaking process) based on known and

1 measurable differences between the test year data and more recent data that came to light  
2 during or after the test year. It is my understanding that this is precisely how the  
3 Missouri Commission has applied the known and measurable concept. The  
4 Commission's discussion of the known and measurable concept in its Order Setting Test  
5 Year, Setting True-up, and Adopting Procedural Schedule in Case No. ER-2001-299 is  
6 illustrative:

7 The test year is a central feature of a rate case such as the present. It is the  
8 starting point for the determination of the amount of additional revenue, if  
9 any, required by a public utility: "The accepted way in which to establish  
10 future rates is to select a test year upon the basis of which past costs and  
11 revenues can be ascertained as a starting point for future projection." State  
12 ex rel. Southwestern Bell Tel. Co. v. Public Serv. Comm'n, 645 S.W.2d  
13 44, 53 (Mo. App. 1982). A test year is a tool used to find the relationship  
14 between investment, revenues, and expenses. Certain adjustments are  
15 made to the test year figures; "normalization" adjustments used to  
16 eliminate nonrecurring items of expenses or revenues and "annualization"  
17 adjustments used to reflect the end-of-period level of investment, expenses  
18 and revenues. Adjustments are also made for events occurring outside the  
19 test year. The criteria used to determine whether a post-year event should  
20 be included in the analysis of the test year is whether the proposed  
21 adjustment is (1) "known and measurable," (2) promotes the proper  
22 relationship of investment, revenues and expenses, and (3) is  
23 representative of the conditions anticipated during the time the rates will  
24 be in effect. State ex rel. GTE North, Inc. v. Missouri Public Service  
25 Commission, 835 S.W.2d 356, 368 (Mo. App., W.D. 1992). The  
26 adjustment of the test year figures for known and measurable events  
27 outside the test year is referred to as a "true-up." See State ex rel. Missouri  
28 Public Service Commission v. Fraas, 627 S.W.2d 882, 888 (Mo. App.,  
29 W.D. 1981).

30  
31  
32 Mrs. Schad's misapplication of the known and measurable concept in this context  
33 appears to be nothing more than an effort to obscure the fact that future net salvage  
34 estimates, like service life estimates and other estimates routinely used in the ratemaking  
35 process are all projections that are based on known and measurable data as a starting  
36 point. This attempt appears to be result-oriented; that is, in this one context, Staff now

1 refuses to acknowledge that estimates should be used and that the estimates are  
2 conservative in any event as explained above, and instead misuses the "known and  
3 measurable" concept by focusing only on costs associated with already retired plant.  
4 This misapplication of the "known and measurable" concept then enables Staff to support  
5 short-term rate reductions through artificially low depreciation rates.

6 **Q. Please summarize your supplemental rebuttal related to the**  
7 **estimation of net salvage.**

8 **A.** The estimate of net salvage that is at issue in this proceeding is the net  
9 salvage related to the property in service. Such property is the property that is rendering  
10 service to current customers and is the property for which depreciation rates are to be  
11 determined. The property that has already been retired is no longer providing service.  
12 Estimates that are based on historical indications of net salvage as a percent of the  
13 original cost retired represent very conservative and reasonable measures of future net  
14 salvage costs. The use of historical absolute amounts of net salvage without adjustments  
15 to reflect the property currently in service, as supported by Mrs. Schad, represents a very  
16 poor estimate of the net salvage related to property in service that leads to a systematic  
17 under-recovery of the retirement-related costs of assets that are currently used to serve  
18 customers.

19 **III. HISTORICAL TREATMENT OF NET SALVAGE IN MISSOURI**

20 **Q. On page 3 of her Supplemental Direct Testimony, Mrs. Schad**  
21 **indicates that the Staff's approach to net salvage was not first introduced in this**  
22 **proceeding, but rather was proposed as early as 1990 for Missouri Public Service**  
23 **Company. Have the Commission and the Staff consistently used Staff's approach**

1   **since 1990?**

2           A.     No, they have not. Although there have been many cases that resulted in  
3 stipulations, there have been only a few cases in which the issue has been litigated and a  
4 determination was made by the Commission. In the very case that was cited by Mrs.  
5 Schad, the Commission, although ultimately agreeing with Staff's position, stated in its  
6 order:

7           "The primary purpose of establishing depreciation rates is the recovery  
8 over the life of the asset of the cost to the Company of acquiring the asset  
9 by recording on the Company's books some percentage of that cost each  
10 year. It is also *customary* to recover through the depreciation rates the  
11 estimated cost of ultimately removing the asset offset by the projected  
12 amount to be realized from its salvage price." *Re: Missouri Public*  
13 *Service*, Case No. ER-90-101, 1990 Mo. PSC Lexis 34, 61-62 (1990)  
14 (Emphasis added).  
15

16           In a subsequent UtiliCorp (Missouri Public Service) proceeding, Case No. ER-97-  
17 394, both Staff and the Commission again used the standard approach for mass property.  
18 The Staff witness was Guy Gilbert, P.E., P.G. In his direct testimony, Mr. Gilbert stated,  
19 in response to a question regarding differences in his methods and assumptions as  
20 compared to the prior study:

21           "The single largest difference is that interim net salvage has a greater cost  
22 of removal component than was previously recognized. This results from  
23 the method and assumptions used in determining the net salvage  
24 estimates."  
25

26           It is clear that in referring to interim retirements Mr. Gilbert is referring to both  
27 the interim retirements that occur at an electric generating station and the retirements of  
28 mass property accounts. It is clear from reviewing the changes in the net salvage  
29 estimates for such mass property groups. For example, the net salvage estimate for  
30 Account 364, Poles, Towers and Fixtures, was revised from negative 19 to negative 73

1 percent.

2 When asked to describe how he arrived at his estimates of net salvage, Mr. Gilbert  
3 responded:

4 "I analyzed past retirements and net salvage dollars recorded on the books  
5 of the utility and computed the percentage of net salvage by calculating  
6 the ratio of the net salvage dollars to dollars retired. I used these  
7 percentages in the calculation of depreciation rates which are applied to  
8 the surviving plant investment contained on the Company's books."  
9

10 This is exactly the approach that I have described. This is the approach that is  
11 used by nearly all regulatory bodies in the United States. This is the standard approach.  
12 Mr. Gilbert correctly reversed the position taken by Staff in the 1990 and 1993 cases for  
13 this utility. He recognized the change he was making when he stated:

14 "Previously, in Case No. ER-93-37, Staff had calculated the ratio of net  
15 salvage dollars to total plant-in-service dollars, by account, to derive a  
16 percentage of net salvage for inclusion in a depreciation rate calculation.  
17 This did not reflect net salvage properly as the ratio of net salvage to the  
18 book value of plant retired."  
19

20 I couldn't agree more.

21 **Q. How did the Commission rule on this issue in Case No. ER-97-394?**

22 A. The Commission did not specifically rule on this issue because it  
23 apparently was not an issue in the proceeding given Mr. Gilbert's use of the standard  
24 approach for mass property. That is, the use of the standard approach for mass property  
25 was apparently acceptable. However, there are several statements made by the  
26 Commission in its discussion of depreciation that are important. First, the Commission  
27 affirmed what depreciation is:

28 "Depreciation is a system of accounting that aims to distribute the cost or  
29 other basic value of tangible capital assets, less salvage, over the estimated  
30 useful life of the unit (which may be a group of assets)...The matching  
31 concept is also an essential element of the basic regulatory philosophy of



1 intergenerational customer equity.”

2

3 Second, in discussing Terminal Net Salvage for electric generating units or

4 production units, the Commission stated:

5 “UtiliCorp states that terminal net salvage refers to the net demolition cost  
6 of a plant or unit at final retirement. UtiliCorp maintains that these costs  
7 will be incurred and should be recognized in current rates. UtiliCorp  
8 points out the difference between interim net salvage (removal and salvage  
9 associated with interim retirements) and terminal net salvage (relating to  
10 ultimate retirement) and notes that the Staff has already recognized, to  
11 some extent, interim net salvage as being properly included in  
12 depreciation rates. UtiliCorp notes several other states in which similar  
13 approaches have been used.

14

15 Both the Staff and OPC point out that this Commission has rejected the  
16 inclusion of terminal net salvage in rates in past cases based on the fact  
17 that terminal costs of removal are speculative and not known and  
18 measurable. *The Commission has also found interim costs to be*  
19 *sufficient for purposes of recovery.”* (Emphasis added)  
20 These statements by the Commission, coupled with the testimony of Mr. Gilbert,

21 lead me to conclude that both the Commission and the Staff equated retirements of mass  
22 property with the interim retirements of production units and found that the removal costs  
23 associated with such retirements were “sufficient for purposes of recovery.” It was only  
24 the terminal net salvage related to production plants that was considered speculative and  
25 not known and measurable by the Commission.

26 **Q. Are there other cases in which the Commission recently adopted the**  
27 **standard approach for accruing the net salvage related to the property in service?**

28 **A.** Yes, as I have already cited in my Supplemental Direct Testimony, in the  
29 2001 case involving St. Louis County Water Company, the Commission preferred the  
30 standard approach to net salvage that I proposed in that proceeding rather than Staff’s  
31 approach.

32 **Q. Please summarize your supplemental rebuttal testimony related to the**

1    **Commission and Staff positions on net salvage.**

2            A.     During the past 14 years the Commission and Staff have supported both  
3    what I now refer to as the Staff approach and the standard approach to net salvage. The  
4    Commission recognized in its 1990 order involving Missouri Public Service that it is  
5    “customary” to use the standard approach. It appears from the 1998 order related to  
6    UtiliCorp that it was only terminal net salvage for production units (not net salvage  
7    related to interim retirements and mass property retirements) that troubled the  
8    Commission in the application of the standard approach. In fact, it found that the  
9    standard approach was sufficient for interim retirements and, by logical extension,  
10   sufficient for mass plant retirements. The only conclusion that can be drawn from this  
11   regulatory history is that, prior to 1999, with the one exception, the Commission favored  
12   the standard method, and that since 1999, a consistent policy has not been established.

13

14                    **IV.    NET SALVAGE POLICY ENDORSED BY EXPERTS**

15            Q.     Mr. Adam’s hearing testimony, which was read by Mrs. Schad in  
16   preparing her Supplemental Direct Testimony, referred to the text Depreciation  
17   Systems by Frank Wolf and Chet Fitch and to contacts made by Mr. Adam with Dr.  
18   Wolf. Are you familiar with this text and Drs. Wolf and Fitch?

19            A.     Yes, I am.

20            Q.     What did their text have to do with this case?

21            A.     Mr. Adam, in response to data requests (Exhibit 122 in this case) indicated  
22   that his approach was consistent with texts on depreciation. At the hearing, the only such  
23   text he could identify was Depreciation Systems by Frank Wolf and Chet Fitch. He

1 testified that Depreciation Systems was an authoritative text and that Frank Wolf was an  
2 expert in the area of depreciation (Tr. at p. 878, l. 18 – 25 to page 879, l. 1). Mr. Adam  
3 also clarified during cross-examination, however, that he never discussed his proposed  
4 treatment of net salvage with Dr. Wolf and that Dr. Wolf did not endorse it (Tr. at p. 919,  
5 l. 5 to p. 920, l. 18).

6 Q. Do you consider Depreciation Systems to be authoritative on the  
7 subject of depreciation?

8 A. Yes, I do.

9 Q. What approach to net salvage is presented in this text?

10 A. The text Depreciation Systems presents the standard approach to net  
11 salvage as described in my Supplemental Direct Testimony. It does not even mention  
12 Mr. Adam's approach, much less support it.

13 Q. The text was published in 1994. Do the authors continue to support  
14 the standard approach?

15 A. Yes, they do.

16 Q. How do you know?

17 A. After reading Mr. Adam's discussion of Depreciation Systems and his  
18 contacts with Dr. Wolf, it occurred to me that I should survey depreciation experts with  
19 whom I am familiar across the country to determine if I could continue to accurately state  
20 that the most authoritative texts and experts continue to endorse the standard approach. I  
21 conducted that survey over the last few weeks by contacting Dr. Frank Wolf, Dr. Chester  
22 Fitch, Dr. Bob White, and Mr. Harold Waddington. I reviewed the issue in this case with  
23 them, describing both the Staff approach and the standard approach that I support. Each

1 and every one of them, including Drs. Wolf and Fitch, continue to support the standard  
2 approach.

3 **Q. How do the results of your survey impact your opinions?**

4 A. They confirm my opinions. That is, they confirm my opinions that sound  
5 regulatory policy and the goals of depreciation are best served by continuing to follow the  
6 standard approach.

7

8 **V. STAFF'S CORE CONCERNS**

9 **Q. Based on your review of the Staff testimony in this and other**  
10 **proceedings, what are the core concerns that have led to the radical change in the**  
11 **customary or standard approach to net salvage that has been proposed by Staff**  
12 **periodically during the past 14 years?**

13 A. In my opinion, Staff has three core concerns regarding the standard  
14 approach: (1) the net salvage accruals that result from the standard approach are greater  
15 than the current level of net salvage costs, (2) if the Company is permitted to recover net  
16 salvage accruals determined using the standard approach, the funds may not be available  
17 when the property is retired, and (3) future net salvage is not known and measurable.

18 **Q. Is the fact that net salvage accruals, determined using the standard**  
19 **approach, are greater than current net salvage costs an appropriate concern?**

20 A. No, it is not. I can understand that someone not familiar with the impacts  
21 of plant growth and maturity might assume that the current net salvage accruals should  
22 approximate the current net salvage costs. However, that same person should then be  
23 concerned that current accruals of original cost are less than the current level of plant

1 additions. Staff does not seem to have this second concern and yet it is the same growth  
2 in plant and price levels that creates both situations.

3 As I explained on pages 19 through 22 of my Supplemental Direct Testimony, the  
4 net salvage accrual exceeds the current net salvage costs because of system growth and  
5 maturity. The Company is serving a greater number of customers with a much larger  
6 utility plant than it was when the plant being retired was placed in service. Further, the  
7 amount being accrued today must be sufficient to offset costs of retiring that will occur 5,  
8 10, 25, 50 or even 100 years from now. Although it may not seem fair to collect these  
9 future costs based on a price level that is greater than today's, it is no less fair than  
10 returning to the Company its original cost in dollars that are 5, 10, 25, 50 or even 100  
11 years subsequent to when the amounts were expended. Both the customer and the  
12 Company are compensated for the use of their money through the return on rate base, i.e.,  
13 original cost (Company) less accumulated depreciation (customer). Intergenerational  
14 equity requires that the future amounts of net salvage be recovered ratably as the related  
15 property renders service. Inasmuch as this property represents a larger amount of plant  
16 and serves a larger number of customers than the plant being retired served during its life  
17 and inflation is a fact of life, as illustrated in Schedule WMS-8, current net salvage  
18 accruals must be greater than the current net salvage costs.

19 **Q. Do net salvage accruals based on the standard approach fully reflect**  
20 **the level of future inflation that will occur between now and the ultimate retirement**  
21 **of plant?**

22 **A.** No, they do not. As discussed earlier in this testimony, for Account 380,  
23 Services, use of current price levels would produce amounts of future net salvage that

1 nearly equal the amounts determined using the standard approach. Only a limited amount  
2 of future inflation is actually incorporated in the estimates based on the standard  
3 approach.

4 **Q. Are there safeguards that insure the fair treatment of customers in**  
5 **the event the Company should seek to recover excessive amounts or endeavor to**  
6 **recover amounts for a second time?**

7 A. Yes, there are. As discussed extensively in the testimonies of Mr. Martin  
8 J. Lyons, Jr. and Mr. Warner L. Baxter of AmerenUE, and Mr. R. Lawrence Sherwin of  
9 Laclede, there are several safeguards in place. First, the depreciation reserve account  
10 tracks the accumulated amount of depreciation. Comparison of this accumulated amount  
11 with calculations of the theoretical level or calculated accrued depreciation provides a test  
12 of the adequacy of past and current depreciation policies and parameters. This  
13 comparison acts as a thermometer on the current depreciation rates, indicating if they are  
14 too high or too low. Should such variances occur, it is an indication that the parameters,  
15 the service life and net salvage percent, should be reviewed and updated. Monitoring of  
16 the accumulated depreciation account insures that the accruals recorded, in accordance  
17 with Commission-ordered depreciation rates, equal the original cost plus the net salvage  
18 cost, no more, no less.

19 Second, the accumulated depreciation account is deducted from the  
20 original cost in the determination of rate base. This deduction insures that, if past  
21 accruals have been greater than those required, the customer would be provided with an  
22 effective return on such amounts until lower rates correct the imbalance. Likewise, the  
23 Company receives a return to the extent that such amounts were less than required.

1                   Finally, periodic depreciation studies enable the depreciation expert to  
2   adjust the estimates of service life and net salvage to reflect additional information  
3   including more recent experience, the current outlook of management, and the estimates  
4   of service life and net salvage used by other utilities.

5           **Q.     In order to monitor the accumulated depreciation account, is it**  
6   **necessary to segregate the accumulated depreciation account between the portion**  
7   **related to original cost and the portion related to net salvage?**

8           A.     No, it is not. The accumulated depreciation account can be monitored in  
9   total. This will still insure that depreciation accruals equate to the original cost plus the  
10   net salvage costs, no more, no less. However, in the near future, in response to Order No.  
11   631 of the Federal Energy Regulatory Commission, most electric and gas utilities will be  
12   segregating the accumulated depreciation account into these two components enabling  
13   separate monitoring of each.

14          **Q.     When monitoring the accumulated depreciation, if there is a**  
15   **determination that a variance exists between the actual accumulated depreciation**  
16   **account and the theoretical amount, what is done to remedy the variance?**

17          A.     There are several approaches used to remedy the variance between the  
18   actual and theoretical accumulated depreciation. The approach used in Missouri is to  
19   amortize the difference to the accumulated depreciation over a period of time. Such  
20   amortizations could result in an increase or decrease in total depreciation expense,  
21   depending on whether the actual accumulated depreciation account was less than or more  
22   than it should be. These amortizations are often referred to as true-ups.

23          **Q.     During her deposition on September 3, 2004, in response to a**

1    **question related to monitoring the accumulated depreciation, Mrs. Schad stated**  
2    **“Well, you can’t true up if you don’t have the same customers. So you can’t really**  
3    **in that sense true up. The approach that Staff is doing provides the customer and**  
4    **the utility the best estimate of true-up.” Do you agree with Mrs. Schad?**

5            A.     No, I do not. While it is true that a true-up of the accumulated  
6    depreciation account by definition represents an amount that was previously over- or  
7    under-recorded and is being righted at a later date, periodic studies of service life and net  
8    salvage using the standard approach provide for the most appropriate true-up amounts.  
9    Such amounts are closer in time to the period during which the over- or under-accrual  
10   occurred than Staff’s approach. The standard approach most likely makes such true-ups  
11   while the property to which it relates is still providing service to customers. Staff’s  
12   approach waits until the property has been retired, realizes that an amount of net salvage  
13   was not provided for during the life of the related property, and then provides a true-up in  
14   the form of an expense amount when the property is no longer in service. This most  
15   certainly is not the best estimate of true-up.

16            Q.     **Do you have any further comments on Staff’s concern regarding**  
17   **whether future net salvage is known and measurable?**

18            A.     Yes, I do. I have discussed the process of estimating future net salvage in  
19   my Supplemental Direct Testimony on pages 22 through 26 as well as earlier in this  
20   statement. I have demonstrated, using one of the Company’s largest accounts, that the  
21   estimates of future net salvage developed under the standard approach represent a very  
22   conservative measure of future net salvage, i.e., they understate the level of future net  
23   salvage costs. Thus, the net salvage accruals that result are very reasonable, despite the



1 fact that they exceed the current level of net salvage costs.

2 Net salvage costs are not going away. The Company must replace aging  
3 plant or retire and abandon plant no longer required. Both replacement and abandonment  
4 require the Company to incur costs to retire the plant. That is a known. The Company  
5 cannot simply walk away from such plant, whether it has a legal obligation to remove it  
6 or not. Net salvage costs have been on an upward trend for many years. Developing an  
7 allowance for future net salvage that looks back at absolute amounts rather than relating  
8 such amounts to the original cost of the property being retired will always result in a poor  
9 measurement of the amount that should be included in the cost of service. I recommend  
10 that a conservative measure of future net salvage as determined using the standard  
11 approach be adopted rather than the poor measurement of future net salvage that results  
12 from Staff's approach.

13 **Q. Does Staff's approach actually represent an attempt to estimate**  
14 **future net salvage?**

15 **A.** Not really. Staff has given up on estimating future net salvage and  
16 endeavoring to ratably recover it from the customers receiving this element of service  
17 value. Instead, Staff is developing an allowance that approximates historical levels of net  
18 salvage costs. Staff has effectively chosen to treat net salvage as an operating expense.  
19

20 **VI. RECOGNITION OF OPERATING AND CAPITAL COSTS**

21 **Q. Is it appropriate to treat net salvage as an operating expense?**

22 **A.** No, it is not. Operating expenses are period costs that generally do not  
23 provide a benefit beyond the period during which they were incurred. Net salvage costs, in

1 contrast, are a one-time cost related to property that provides a benefit throughout its  
2 service life. Thus, they are capital costs. In order to match the recognition of net salvage  
3 costs with the benefit that the related property provides, capital costs must be recognized  
4 ratably during the life of the property.

5 **Q. What treatment of net salvage is required by the Uniform System of**  
6 **Accounts?**

7 A. The Uniform System of Accounts (USOA) requires that net salvage, both  
8 gross salvage and cost of removal, is recorded to Account 108, Accumulated Provision for  
9 Depreciation. This is a balance sheet account, not an operating income account. Thus, the  
10 USOA treats net salvage as capital. The USOA, as described in my Supplemental Direct  
11 Testimony, defines depreciation as the loss in service value and defines service value as the  
12 original cost less net salvage. Net salvage is a part of depreciation. The USOA also  
13 requires accrual accounting. The service value or cost, including net salvage, must,  
14 therefore, be accrued during the life of the assets, not expensed when the cost is incurred.

15 **Q. Has Mrs. Schad recognized the need for adjusting the original cost to**  
16 **reflect capital costs related to the asset that do not occur and are not known until the**  
17 **end of the assets life?**

18 A. Yes, she has. On page 49, lines 11 through 19, of her September 3, 2004,  
19 deposition, Mrs. Schad stated:

20 " Well, they had net salvage. That was to keep the overcollection from - -  
21 that was to keep so that if you - - if you had \$100 you need to recover from  
22 the customer, but there was going to be \$10 at the end. You didn't want to  
23 collect \$100 from the customer. You wants to make sure that you only  
24 collected the \$90 so that that would be the appropriate amount. So net  
25 salvage would - its consumed depreciation. Depreciation is the original  
26 cost minus the service value."  
27

1           It appears that there is no concern about treating gross salvage as capital and  
2   adjusting the original cost for such salvage regardless of whether it is known and  
3   measurable. It is only when the net salvage is negative that Staff has a problem.

4           **Q.     On page 153, lines 5 and 6, Mrs. Schad, in discussing current**  
5   **cost of removal, refers to recovery of such costs as appropriate “because it’s**  
6   **keeping their service going”. Do you agree that the nature of cost of removal is**  
7   **that it keeps the system going?**

8           **A.     No, I do not. Mrs. Schad is endeavoring to consider the entire**  
9   **system as a unit of property. A unit of property is the smallest item of property of a**  
10   **particular type that is capitalized, e.g. a service line or a meter. When units of**  
11   **property are placed in service, they are capitalized. When units of property are no**  
12   **longer in service, they are retired. Other costs related to this unit of property during**  
13   **its life represent operating expenses, e.g. repair of a pinhole leak in a pipe. These**  
14   **are the costs that keep the service of the unit of property going. The cost of**  
15   **removing or retiring a unit does not keep its service going. In stark contrast, the**  
16   **cost of removing or retiring a unit ends it service.**

17                   Under the concept floated by Mrs. Schad, the cost of retiring a unit  
18   of property is an operating expense because it keeps the system going. Presumably,  
19   then, only the cost to retire the entire system would represent a capital cost.  
20   However, the logical extension of her theory is that the cost of installing the  
21   replacement unit of property is also just keeping the system going and also should  
22   be expensed. Neither the cost to remove nor the replacement cost should be  
23   expensed. Both are capital costs that should be ratably recognized during the life of

Supplemental Rebuttal Testimony  
of William M. Stout

1 the property to which they relate.

2           **Q. In this proceeding, Staff has proposed that a net salvage**  
3 **allowance be recovered by adding an amount to the depreciation accrual rate.**  
4 **Does Staff's proposal represent accrual accounting?**

5           **A.** No, it does not. Staff developed the incremental rate for the net  
6 salvage allowance by dividing the recent net salvage history by the plant balance.  
7 Staff has readily admitted that it has backed into this rate in a fashion that results in  
8 the expensing of net salvage. Simply because it incorporated this inadequate  
9 allowance into the depreciation rate does not make it accrual accounting.

10           **Q. Does this conclude your supplemental rebuttal testimony?**

11           **A.** Yes, it does.

12

**Schedule WMS-7**  
**Calculation Of Future Net Salvage as a Percent of**  
**Surviving Original Cost as of September 30, 1998**  
**Laclede Gas Company**

Panel A: Historical Data							
Line	Year	Steel Services			Copper and Plastic Services		
		Net Salvage Amount	Feet Retired	Net Salvage Per Foot	Net Salvage Amount	Feet Retired	Net Salvage Per Foot
	[1]	[2]	[3]	[4]=[2]/[3]	[5]	[6]	[7]=[5]/[6]
	1990	(317,836)	117,648	(2.70)	(440,213)	100,893	(4.36)
	1991	(491,463)	166,364	(2.95)	(486,196)	111,502	(4.36)
	1992	(561,093)	143,037	(3.92)	(772,232)	127,579	(6.05)
	1993	(521,377)	138,247	(3.77)	(862,437)	123,055	(7.01)
	1994	(581,534)	136,355	(4.26)	(905,140)	162,850	(5.56)
	1995	(501,079)	123,304	(4.06)	(834,227)	193,456	(4.31)
	1996	(583,353)	148,894	(3.92)	(1,020,865)	186,030	(5.49)
	1997	(617,144)	125,768	(4.91)	(1,153,761)	197,185	(5.85)
	1998	(581,911)	99,100	(5.87)	(1,667,287)	185,865	(8.97)
	1999	(662,020)	129,175	(5.12)	(2,270,682)	441,737	(5.14)
	2000	(665,041)	121,917	(5.45)	(3,005,223)	515,290	(5.83)
[a]	Total	(6,083,851)	1,449,809	(4.20)	(13,418,263)	2,345,442	(5.72)

<b>Panel B: Future Net Salvage Calculation</b>			
<b>Line</b>	<b>Category</b>	<b>Steel Services</b>	<b>Copper and Plastic Services</b>
		<b>[8]</b>	<b>[9]</b>
<b>[b]</b>	Feet in Service at 9/30/98	10,649,294	27,199,888
<b>[c]</b>	Future Net Salvage	(44,687,761)	(155,610,435)
<b>[d]</b>	Original Cost at 9/30/98	37,937,595	234,995,844
<b>[e]</b>	<b>Future Net Salvage as a % of Original Cost</b>	<b>-118%</b>	<b>-66%</b>

**Sources and Notes:**

Panel A data provided by Laclede Gas.

[a]: Sum (1990 - 2000)

[b]: Laclede Gas.

[c][8]: Calculated as [a][4] x [b][8].

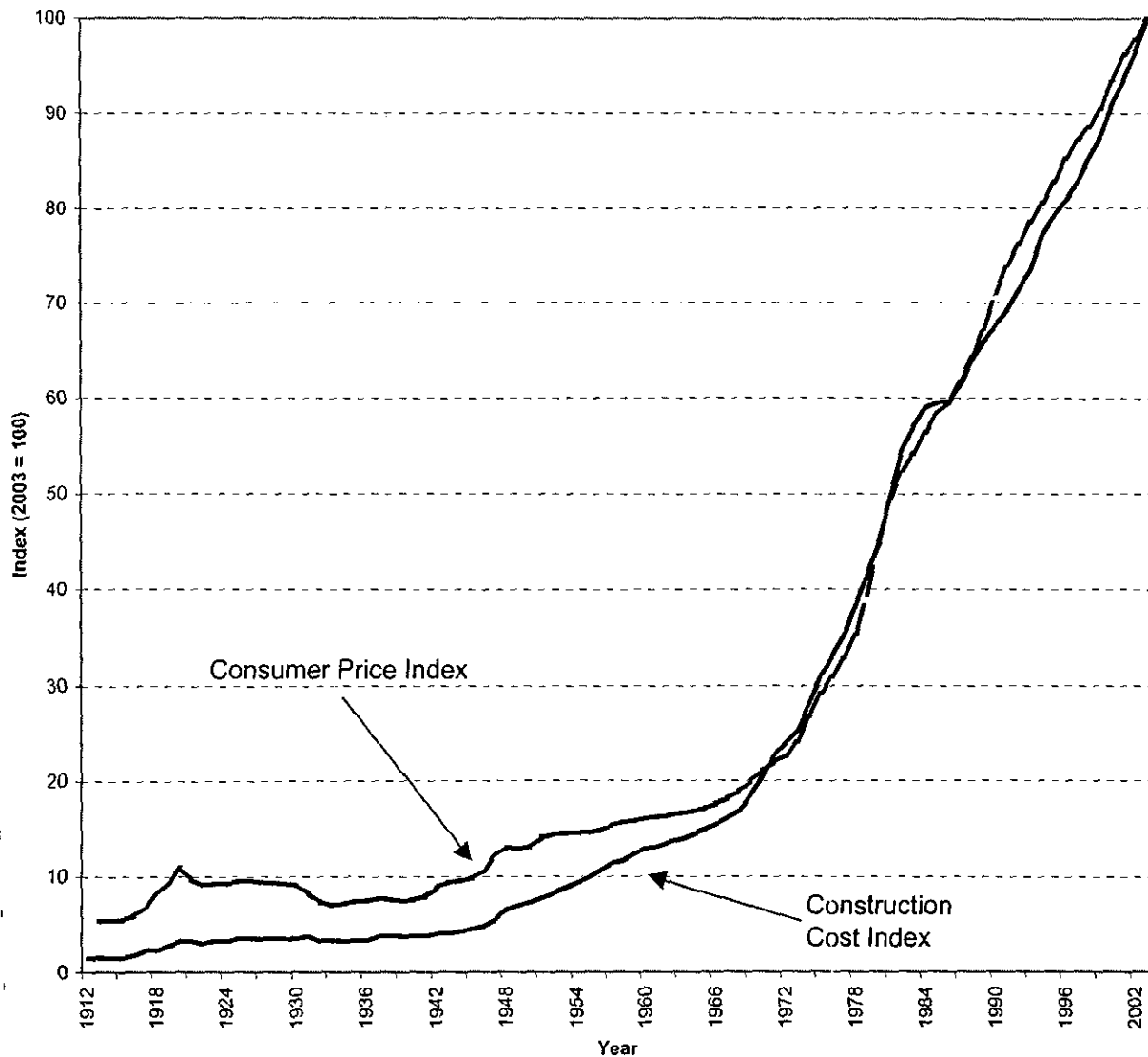
[c][9]: Calculated as [a][7] x [b][9].

[d]: Laclede Gas.

[e][8]: Calculated as [c][8] / [d][8].

[e][9]: Calculated as [c][9] / [d][9].

**Schedule WMS - 8**  
**Change in Construction Costs for**  
**Natural Gas Distribution - Steel Services**  
North-Central United States



Source:

Handy - Whitman Index of Public Utility Construction Costs for Natural Gas Distribution Steel Services, North Central Region of the U.S. Account Number 380 in Uniform System of Accounts. Bureau of Labor Statistics.

BEFORE THE PUBLIC SERVICE COMMISSION  
OF THE STATE OF MISSOURI

In the Matter of Laclede Gas Company's     )  
Tariff to Revise Natural Gas Rate         )     Case No. GR-99-315  
Schedules.                                     )

AFFIDAVIT

COMMONWEALTH OF PENNSYLVANIA     )  
   )     SS.  
COUNTY OF CUMBERLAND             )

William M. Stout, of lawful age, being first duly sworn, deposes and states:


1. My name is William M. Stout. My business address is 207 Senate Avenue, Camp Hill, Pennsylvania; and I am President of the Valuation and Rate Division of Gannett Fleming, Inc.

2. Attached hereto and made a part hereof for all purposes is my supplemental rebuttal testimony.

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.

  
William M. Stout

Subscribed and sworn to before me this 10th day of September, 2004.

  
\_\_\_\_\_



COMMONWEALTH OF PENNSYLVANIA  
Notarial Seal  
Mary O. Hoff, Notary Public  
East Pennsboro Twp., Cumberland County  
My Commission Expires June 2, 2007  
Member, Pennsylvania Association Of Notaries