Exhibit No.: Depreciation Rates Issue: Witness: Richard A. Kottemann, Jr. Type of Exhibit: Surrebuttal Testimony Sponsoring Party: Laclede Gas Company Case No.: GR-99-315

LACLEDE GAS COMPANY

GR-99-315

SURREBUTTAL TESTIMONY

OF

RICHARD A. KOTTEMANN, JR.

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FILED AUG 1 9 1999

Missouri Public S**ervice Commissio**n

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### Surrebuttal Testimony of Richard A. Kottemann, Jr.

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### SURREBUTTAL TESTIMONY OF RICHARD A. KOTTEMANN, JR.

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### Introduction

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2	Q.	Please state your name, title and business address.
3	A.	My name is Richard A. Kottemann, Jr. I am Superintendent of
4		Environmental and Design Engineering at Laclede Gas Company,
5		and my business address is 3950 Forest Park Avenue, St. Louis,
6		Missouri, 63108.
7	Q.	Are you the same Richard A. Kottemann, Jr. who previously
8		submitted pre-filed direct testimony and rebuttal testimony in
9		this assa?
10	A.	Yes, I am.
10 11	А. Q.	Yes, I am. What is the purpose of your testimony?
10 11 12	А. Q. А.	Yes, I am. What is the purpose of your testimony? I will respond to Staff witness Paul Adam's rebuttal
10 11 12 13	А. Q. А.	Yes, I am. What is the purpose of your testimony? I will respond to Staff witness Paul Adam's rebuttal testimony, with respect to certain statements he makes
10 11 12 13 14	А. Q. А.	Yes, I am. What is the purpose of your testimony? I will respond to Staff witness Paul Adam's rebuttal testimony, with respect to certain statements he makes concerning Laclede's recommended treatment of net salvage for
10 11 12 13 14 15	А. Q. А.	Yes, I am. What is the purpose of your testimony? I will respond to Staff witness Paul Adam's rebuttal testimony, with respect to certain statements he makes concerning Laclede's recommended treatment of net salvage for depreciation accounting, and concerning the removal cost and
10 11 12 13 14 15 16	А. Q. А.	Yes, I am. What is the purpose of your testimony? I will respond to Staff witness Paul Adam's rebuttal testimony, with respect to certain statements he makes concerning Laclede's recommended treatment of net salvage for depreciation accounting, and concerning the removal cost and prospective retirement of Laclede's gas holders. Dr. Ronald

### I Treatment of Net Salvage

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2	Q.	Please refer to Adam Rebuttal, page 2, lines 3-8, wherein
3		Mr. Adam uses the terms "Mr. Kottemann's method" and "the
4		'Kottemann calculation'." Did you devise a new or non-
5		traditional treatment of net salvage for this case?
6	A.	No. The method Laclede used for calculation of net salvage
7		is commonly accepted and widely used. It was not devised or
8		revised by me. It conforms to methods recommended in numerous
9		texts by knowledgeable depreciation professionals. I am,
10		therefore, at a loss as to why Mr. Adam distinguishes
11		Laclede's method of calculation from the so-called " classical
12		calculation."
13	Q.	How does Laclede's method of calculation differ from that of
14		Mr. Adam?
15	Α.	I included the formula Laclede uses on page 4, lines 17-18 of
16		my direct testimony in this case. Although terms differ
17		slightly, this formula is based upon one shown in Engineering
18		Valuation and Depreciation, by Marston, Winfrey, and
19		Hempstead:
20		10.7. Depreciation Base. For cost accounting
21		purposes the original cost of the depreciable
22		property is the widely used depreciation base
23		for both the unit and group methods. The
24		depreciation rate is usually adjusted for the
25		estimated salvage value when the straight line

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method is used:

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2	1.00 - estimated salvage value
3	Depreciation rate = original cost (10.1)
4	probable life or average life
5	In the same text, this passage follows under Section 10.11.,
6	Salvage Value:
7	Many properties produce no salvage value upon
8	retirement because either they are abandoned in
9	place or the cost of dismantling and removal is
10	about equal to the value of the salvaged
11	material. When the cost of removal exceeds the
12	value of the retired property, after its
13	removal, the result is a negative salvage
14	value.
15	
16	When the straight line method is used, common
17	practice is to determine the depreciation rate
18	to be applied to the depreciation base as
19	indicated by Eq. (10.1).
20	The formula clearly contemplates the net salvage term as a
21	ratio obtained by dividing estimated salvage by original cost
22	of plant. In deriving the net salvage component of the above
23	depreciation rate equation, Laclede utilizes the following
24	formula:
25	% Net salvage = gross salvage - net cost of removal
26	original cost of plant retired
27	The formula calculates net salvage as a percentage (the
28	salvage ratio). It is a very simple and straightforward
29	calculation, and Laclede has been performing it as presented
30	in numerous texts since depreciation rates for individual
31	accounts were first developed at Laclede. In order to

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determine net salvage for inclusion in the depreciation rate 1 2 calculation, removal expenditures for a given plant account 3 are netted against any positive salvage value over a recent observation period, and divided by the original cost of plant 4 retired over the same period. This is exactly what Laclede 5 did in recommending rates requested in this, and previous 6 filings, as I explained in detail on pages 5-6 of my direct 7 testimony. Mr. Adam, on the other hand, deviates radically 8 from this commonly accepted formula in his treatment of net 9 salvage cost. 10

In his rebuttal testimony, Mr. Adam takes exception with your 11 Q. position that his recommended treatment of net salvage 12 violates generally accepted accounting principles (GAAP). 13 Does Mr. Adam's treatment of net salvage cost conform to GAAP? 14 No, not according to any texts addressing depreciation which 15 Α. I have encountered. All references I am familiar with 16 universally specify that estimated net salvage costs be 17 amortized over the life of the property in deriving straight-18 line depreciation rates. For example, the publication titled 19 Public Utility Depreciation Practices, compiled and edited by 20 the Depreciation Subcommittee of the National Association of 21 Regulatory Utility Commissioners (NARUC), under Chapter II, 22

" Current Concepts in Depreciation," Section G, " Salvage,"

#### 2 provides as follows:

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3 Thus the intent of the present concept is to 4 allocate the net cost of removal of an asset to 5 annual accounting periods, making due allowance for the net salvage, positive or negative, that 6 7 will be obtained when the asset is retired. This concept carries with it the thought that 8 9 ownership of property entails the 10 responsibility for its ultimate abandonment or removal. Hence if current users 11 of the 12 property benefit from its use, they should pay 13 their pro rata share of the costs involved in 14 the abandonment or removal of the property.

16 This treatment of salvage is in harmony with 17 generally accepted accounting principles and 18 tends to remove from the income statement 19 fluctuations caused by erratic, although 20 necessary, abandonment and uneconomical removal 21 operations. It also has the advantage that 22 current consumers pay a fair share, even though 23 estimated, costs associated of with the 24 property devoted to their service.

26 This passage contradicts Mr. Adam's recommended treatment in 27 several respects. Mr. Adam's method recognizes the dollars 28 expended toward removal cost over a recent observation period, 29 but grossly understates these expenditures as a percent of the 30 original cost of plant retired. The latter ratio is the accepted way of using recent salvage and cost of removal data 31 32 to determine estimated net salvage, as it is defined in the 33 depreciation rate formula, because this is precisely the

mechanism which properly allocates the future cost of removal

2 to the current customer base.

As another example, a passage on page 7 of the text entitled <u>Depreciation Systems</u>, by Wolf and Fitch, appears eminently clear in this regard:

6 Under GAAP, the depreciation accrual is calculated by dividing the service cost by the 7 estimated useful life. The service cost 8 9 component is the original historical cost minus the net salvage. Net salvage is the scrap 10 value of the asset minus the related cost of 11 12 retiring. • • • • Note that the estimate 13 of net salvage requires an estimate of both the residual value of the asset and the retirement 14 cost of that asset at the end of the life. 15 When the service cost is calculated as 16 17 the original historical cost minus the negative 18 net salvage, the result is a service cost factor to be allocated that is greater than the 19 20 original cost. Accounting theory supports matching this total cost of using the asset 21 22 against the revenues earned during the asset's life. 23

25 Q. Given your earlier reference to the current customer base,

26 Mr. Adam claims his recommended method provides superior

27 consideration for "the intergenerational problem." Would

28 you please respond?

24

A. Exactly the opposite is true. Mr. Adam's treatment allows
only that dollar amount of net salvage experienced in recent
years. If no removal costs are incurred, then no collection
is allowed. This loads all future removal costs of property

1 in service onto future customers, while customers currently 2 enjoying use of the asset pay nothing toward its eventual If that retirement is many years in the future, retirement. 3 then this imbalance only grows larger and larger given Mr. 4 Adam's adjustment. 5 Should depreciation accounting only focus on collecting from 6 Q. 7 current customers what the Company is currently spending to retire items of plant, as Mr. Adam asserts? 8 Mr. Adam is not to my knowledge recommending that the 9 Α. No. Company collect, in rates, 100 percent of its capital 10 expenditures for the current year, and likewise should not 11 recommend that the Company recover only the current year's net 12 salvage in rates. Actually, it should be clear from the above 13 references that depreciation accounting is focused on 14 allocating the full estimated net cost of removal as evenly as 15 possible over the average service life (ASL) of the account in 16 order to accrue a reserve for future retirements. 17 In this manner, the net salvage expense is borne as equitably as 18 possible by all customers who enjoy use of the asset. The 19 formula Laclede uses, and the way we use it, accomplishes this 20 fundamental goal of depreciation accounting. It is Mr. Adam 21

23 method and past practice. In this proceeding, Laclede is

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who initiated an unwarranted deviation from the accepted

merely requesting that the Commission restore the Company's 1 2 authorization to employ the net salvage formula in the proper 3 manner.

Is the Company's current cost of removal for Mains and 4 Q. Services less than what the net salvage formula you cite above 5 6 would calculate, as Mr. Adam contends at page 2, line 12 of rebuttal? 7

The dollars collected today through depreciation are accruing Α. 8 toward future retirements, and are not meant to provide 9 instantaneous reimbursement of annual retirement activity. 10 When the net cost of removal is viewed as a percent of the 11 original cost of plant retired, the amount thus calculated 12 yields an appropriate annualized accrual, distributed over the 13 14 ASL of the plant account.

15 Q. Will it cost more in the future than it does now for Laclede to abandon a Main or Service?I cannot predict the 16 future any better than Mr. Adam; however, I can use past 17 trends in removal cost to estimate future removal costs. 18 Using such recent activity as a way to estimate the 19 20 appropriate salvage ratio for inclusion in the depreciation rate formula is completely consistent with Laclede's past 21 22 practice. To illustrate this point, I submit Schedules 1 and 2.

23

1 Q. Please explain Schedules 1 and 2.

Schedule 1 consists of four pages which show, in graphical 2 Α. form, salvage ratios based upon Laclede's recorded cost of 3 removal and salvage activity for Mains and Services, from 1972 4 through 1998. In addition, each graph shows a straight trend 5 line generated by regression analysis of the data. Schedule 6 2, consisting of four pages, contains the data from which the 7 graphs in Schedule 1 were prepared. Please note the contrast 8 in Laclede's calculated salvage ratios, including easily 9 discernible trends, compared to the net salvage allowance 10 recommended by Mr. Adam. From these data it is apparent that 11 Laclede is experiencing a gradual upward trend in net salvage 12 expense on the Mains accounts, and a more pronounced upward 13 trend in the Services accounts. Even so, Laclede takes the 14 very conservative position of seeking recognition of only that 15 level of net salvage it has actually experienced in recent 16 years, not an extrapolated, trended value. 17

Q. Mr. Adam predicates the successful implementation of his
method on the assumption that Laclede will continue to make
frequent rate filings. Is this a reasonable position?
A. In Missouri, gas utilities are required to submit
depreciation studies at three to five year intervals. Mr.
Adam's position on depreciation would be tantamount to

requiring a rate filing accompanied by a depreciation study
 virtually every year - a result that is not in anyone's
 interest.

Please refer to Adam Rebuttal, page 3, lines 5-16, does Mr. 4 Q. Adam present a compelling argument against changing Laclede's 5 depreciation rates in consideration of the available data? 6 No. Because of the flawed net salvage method used by Mr. Adam 7 Α. to manipulate the data in our last case, a change in rates is 8 9 needed now, despite the lack of new data. Mr. Adam should be aware that the current rates were put into effect as part of 10 the settlement of Case No. GR-98-374, without agreement of any 11 party upon any rate-making principle. Laclede's requested 12 13 rates in the instant case are consistent with Laclede's interpretation of available data to produce the rates 14 requested by Laclede in the last case. The availability of 15 additional data in a successive case will not materially 16 change the fundamental difference between Laclede and Staff 17 18 concerning the recommended treatment of net salvage cost.

19 Gas Holders

Q. Has Laclede proposed collection of "<u>final</u> removal" costs for
the Company's four gas holders as Mr. Adam contends at page 3,
line 17 of rebuttal?

23 A. Laclede has presented its estimate of the cost to dismantle

and remediate the four remaining gas holders, and has over a period of years repeatedly refined the estimate, largely at the urging of Staff. It is Mr. Adam who in this proceeding has now attached the term "<u>final</u> removal" to Laclede's estimate.

6 Q. Has the Company "repeatedly stated that the gas holders will
7 be removed in 10 years" as Mr. Adam claims at page 3, line 20
8 of rebuttal?

There is nothing in the record to substantiate this 9 Α. No. In its Data Request No. 116 to Mr. Adam, Laclede 10 claim. requested that he produce documents in support of this claim. 11 He was unable to do so, yet he continues to present this claim 12 as fact in his testimony. He apparently attributes the 13 alleged " repeated" statement to an employee who has since 14 retired. 15

16 Q. Is it reasonable for Mr. Adam to demand that Laclede make a 17 firm commitment to retire the holders by some certain date in 18 exchange for receiving rate recognition for the large negative 19 salvage associated with the holders?

20 A. No. To my knowledge, no commitments exist, outside of normal 21 fiscal planning, to retire any of Laclede's property assets by 22 a certain date. Retirements are driven by many diverse 23 factors, some of which can be anticipated better than others.

1		We know that retirements will occur, but we do not generally
2		know when they will occur. It is peculiar that Mr. Adam
3		singles out the gas holders in this manner.
4	Q.	Is the Company now suggesting that all four gas holders will
5		be removed by 2009 as Mr. Adam states at page 3, line 22 of
6		his rebuttal testimony?
7	Α.	No. The Company never suggested this.
8	Q.	Has any employee of the Company made such a suggestion in this
9		case?
10	Α.	None of Laclede's employees suggested this. The year 2009
11		appears nowhere in Laclede's testimony or work papers. The
12		Company has requested continuing authority to use a remaining
13		life of 10 years in calculating the depreciation rate for gas
14		holders. There is no linkage between use of a 10-year
15		remaining life in the formula and a specific year of removal.
16		Rather, my direct testimony, and all discussions with Mr. Adam
17		during this case, have been exceedingly clear that the request
18		to assume a 10-year remaining life reflects an estimated
19		average, with the possibility that some holders may be
20		removed, each side of 10 years.
21	Q.	Does Mr. Adam's confusion about the year 2009 cast doubt on
22		his allegation concerning " repeated statements" in the past

about the year 2006?

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A. Yes. I believe he was confused then, just as he is confused
 now.

3 Please explain again why the Company continues to request Q. authority to use 10 years in the remaining life calculation. 4 Given the probable set of circumstances that will dictate 5 initiation of their removal, 10 years was and remains a 6 reasonable life projection for these holders. Ten years is an 7 estimated average. It provides the flexibility to begin 8 removal of one or more holders as early as next year, but does 9 not rule out retaining one or more holders for more than 10 10 Because I have no information at my disposal to 11 years. recommend a life projection of other than 10 years, I have not 12 requested a change since the use of 10 years was first adopted 13 in Case No. GR-96-193. 14

Q. Should Laclede consider shortening the projected
 remaining life in light of Mr. Adam's concern?

17 A. If Staff wishes to recommend an accelerated rate of accrual,
18 Laclede will be happy to consider it. Assuming the projected
19 reserve requirement were reached prior to all holder assets
20 being retired, Laclede would simply cease depreciation on this
21 account as is the case for a number of other active plant
22 accounts.

On page 4, lines 3-4 of his rebuttal testimony, Mr. Adam 1 Q. states in reference to the holders that " there is no interim 2 net salvage in this account." Do you agree? 3 No. Once again Mr. Adam injects into written testimony that Α. 4 which he cannot substantiate. In Case No. GR-96-193, Mr. Adam 5 6 was provided with a work paper for the gas holders account, including cost of removal and gross salvage, for the period 7 1962 through 1995. I have attached this data as Schedule 3, 8 an analysis of which indicates an interim net salvage rate of 9 - 9.15%. This is not to suggest that Laclede should be 10 limited to recovery of its interim net salvage on the gas 11 holders, but is another example of Mr. Adam's erroneous 12 statements and conclusions. 13 14 15 16 Recommendation What is your recommendation? 17 Q. I recommend the Commission affirm Laclede's long-standing 18 Α.

method of net salvage analysis for use in calculating
depreciation rates and approve a phased-in implementation of
such rates. I further recommend the Commission approve
Laclede's proposed depreciation rate for Gas Holders, Account

362, based on the abundance of verifiable removal cost data
 that Laclede has furnished to the depreciation Staff.
 Q. Does this conclude your surrebuttal testimony?
 A. Yes.

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Steel Mains - 376.10 Percent Net Salvage

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Schedule 1 Page 1 of 4 Kottemann Surrebuttal

Plastic Mains - 376.30 Percent Net Salvage



Schedule 1 Page 2 of 4 Kottemann Surrebuttal

## Steel Services - 380.10 Percent Net Salvage

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Schedule 1 Page 3 of 4 Kottemann Surrebuttal

## Plastic & Copper Services - 380.20 Percent Net Salvage



Schedule 1 Page 4 of 4 Kottemann Surrebuttal

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# Laclede Gas Company Steel Mains - 376.10

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1981 - 1989

1990 - 1998

1972 - 1998

	Total	Cost		Total	Percent
Fiscal (	Retirement	of	Gross	Net	Net
Year	Value	Removal	Salvage	Salvage	Salvage
1072	200 422 42	100 450 04	10 040 92	(07 400 00)	00 450/
1972	300,133.42	109,452.21	12,040.03	(97,403.38)	-32.45%
1973	200,231.31	90,975.10	0,200.22	(62,088.90)	-31.78%
1974	200,010.12	19,013.91	23,043.17	(30,270.74)	-34.35%
1975	200,720.92	97,964.55	22,402.23	(75,532.30)	-30.19%
1970	190,213.31	90,209.70	14,007.40	(70,222.33)	-40.07%
1977	100,409.02	00,303.14	20,430.30	(31,874.70)	-19.27%
1970	120,030.74	09,411.30	14,300.43	(75,060.95)	-47.25%
1979	139,094.10	00,200.99	20,047.00	(53,409.19)	-38.18%
1960	191,104.94	99,260.02 107.865.14	22,327.14	(70,952.00)	-40.26%
1901	210,733.01	127,000.14	25,250.02	(102,615.12)	-48.69%
1902	210,034.91	97,312.75	27,807.85	(69,444.90)	-32.15%
1963	149,309.25	99,303.90	17,928.46	(81,375.44)	-54.50%
1904	172,546.57	110,623.53	30,374.05	(74,248.88)	-43.03%
1985	289,565.02	109,190.73	87,555.85	(21,634.88)	-7.47%
1986	101,607,46	70,895.04	13,521.46	(57,373.58)	-56.47%
1987	197,727.99	137,577.71	35,647.96	(101,929.75)	-51.55%
1988	128,376.18	97,772.36	33,298.38	(64,473.98)	-50.22%
1989	304,735.49	134,816.13	17,989.84	(116,826.29)	-38.34%
1990	191,495.28	119,494.05	13,360.71	(106,133.34)	-55.42%
1991	354,391.62	146,159.79	92,008.75	(54,151.04)	-15.28%
1992	2/2,/89.91	161,145.14	80,908.60	(80,236.54)	-29.41%
1993	224,662.60	187,952.63	72,012.12	(115,940.51)	-51.61%
1994	217,262.42	158,893.48	41,113.11	(117,780.37)	-54.21%
1995	304,404.14	159,483.85	43,113.16	(116,370.69)	-38.23%
1996	282,449.76	209,204.61	76,149.74	(133,054.87)	-47.11%
1997	425,722.95	235,420.89	76,189.89	(159,231.00)	-37.40%
1998	184,349.52	132,131.80	64,995.37	(67,136.43)	-36.42%
	Time	Г	Average Percent	ך ר	Staff's Allowed
	Period		Net Salvage		Net Salvage
		L	¥		
	1972 - 1980		-35.17%		

-38.96%

-38.66%

-37.71%

-7.00%

Schedule 2 Page 1 of 4 Kottemann Surrebuttal

# Laclede Gas Company Plastic Mains - 376.30

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Fiscal Year	Total Retirement Value	Cost of Removal	Gross Salvage	Total Net Salvage	Percent Net Salvage
4070					0.00%
19/2	-	-	-	-	0.00%
1973	-	-	-	-	0.00%
1076	-	-	-	-	0.00%
1976	-	_	-		0.00%
1970	_	_	_	_	0.00%
1978	-	-	_	_	0.00%
1979	_	_	_	_	0.00%
1980	-	-	_	-	0.00%
1981	-	-	_	-	0.00%
1982	-	-	-	-	0.00%
1983	-	-	-	-	0.00%
1984	-	-	-	-	0.00%
1985	-	-	-	-	0.00%
1986	-	-	-	-	0.00%
1987	_	-	-	-	0.00%
1988	9,705.91	5,532.28	3,345.22	(2,187.06)	-22.53%
1989	26,574.17	11,962.43	9,929.52	(2,032.91)	-7.65%
1990	56,101.85	15,184.88	9,247.11	(5,937.77)	-10.58%
1991	20,457.97	9,385.78	14,651.05	5,265.27	25.74%
1992	36,340.96	20,110.39	3,075.64	(17,034.75)	-46.87%
1993	16,187.71	17,673.56	2,883.62	(14,789.94)	-91.37%
1994	27,345.83	16,583.00	3,475.89	(13,107.11)	-47.93%
1995	40,244.57	15,961.38	10,185.95	(5,775.43)	-14.35%
1996	33,828.29	15,170.06	3,518.97	(11,651.09)	-34,44%
1997	42,459.09	22,629.80	6,130.84	(16,498.96)	-38.86%
1998	38,834.64	15,914.65	1,534.97	(14,379.68)	-37.03%
	Time	Г	Average Percent	) Г	Staff's Allowed
	Period		Net Salvage		Net Salvage
		L			
	1988 - 1992		-14.70%		
	1993 - 1998		-38.31%		-1.00%

-28.19%

1988 - 1998

-1.00%

Schedule 2 Page 2 of 4 Kottemann Surrebuttal

# Laclede Gas Company Steel Services - 380.10

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<u> </u>	Total	Cost	<b></b>	Total	Percent
Fiscal	Retirement	of	Gross	Net	Not
Year	Value	Removal	Salvane	Salvane	Salvade
			Olivago		Ourage
1972	999,951.20	401,574.15	12,851.59	(388,722.56)	-38.87%
1973	675,517.78	281,677.13	8,070.20	(273,606.93)	-40.50%
1974	768,750.58	388,023.55	21,032.00	(366,991.55)	-47.74%
1975	602,188.50	413,307.14	13,575.09	(399,732.05)	-66.38%
1976	702,445.84	418,214.49	8,894.21	(409,320.28)	-58.27%
1977	523,906.60	289,585.03	7,958.23	(281,626.80)	-53.76%
1978	449,246.88	333,938.36	12,076.04	(321,862.32)	-71.64%
1979	374,892.12	298,229.44	11,466.72	(286,762.72)	-76.49%
1980	408,072.60	328,354.72	15,055.63	(313,299.09)	-76.78%
1981	507,614.05	470,275.60	38,281.77	(431,993.83)	-85.10%
1982	542,524.66	406,999.63	28,341.97	(378,657.66)	-69.80%
1983	438,648.45	399,307.74	27,966.41	(371,341.33)	-84.66%
1984	350,696.03	375,154.83	18,138.88	(357,015.95)	-101.80%
1985	291,932.71	372,838.80	17,850.01	(354,988.79)	-121.60%
1986	339,541.69	349,735.94	13,619.09	(336,116.85)	-98.99%
1987	313,659.31	345,747.19	19,121.54	(326,625.65)	-104.13%
1988	258,646.94	317,074.28	17,217.82	(299,856.46)	-115.93%
1989	343,258.28	368,265.22	17,890.26	(350,374.96)	-102.07%
1990	317,045.95	319,774.62	31,741.36	(288,033.26)	-90.85%
1991	400,170.16	499,495.71	39,806.37	(459,689.34)	-114.87%
1992	317,112.64	497,168.92	13,373,74	(483,795.18)	-152.56%
1993	377,739.99	506,173.97	22,791.26	(483,382.71)	-127.97%
1994	491,220.63	566,685.00	24,838.00	(541,847.00)	-110.31%
1995	410,052.18	477,024.39	23,335.64	(453,688.75)	-110.64%
1996	493,736.99	516,698.50	30,880.69	(485,817.81)	-98.40%
1997	467,130.92	562,614.44	27,126.70	(535,487.74)	-114.63%
1998	359,803.62	531,033.58	19,944.35	(511,089.23)	-142.05%
	7	г		, г	
	Poriod		Not Salvage		Start's Allowed
		L	Net Salvage	J L	Net Salvage
	1972 - 1980		-55.26%		
	1981 - 1989		-94.70%		
	1990 - 1998		-116.75%		-60.00%
	1972 - 1998		-83.76%		

# Laclede Gas Company Plastic & Copper Services - 380.20

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	Total	Cost		Total	Percent
Fiscal	Retirement	ot	Gross	Net	Net
<u>Year</u>	Value	Removal	Salvage		Salvage
1972	244,535.41	102,725.51	484.00	(102,241.51)	-41.81%
1973	246,298.69	122,123.44	58.40	(122,065.04)	-49.56%
1974	304,919.52	169,848.38	416.88	(169,431.50)	-55.57%
1975	256,711.85	169,562.50	1,495.60	(168,066.90)	-65,47%
1976	324,372.82	205,181.85	-	(205,181.85)	-63.25%
1977	251,170.62	187,153.54	148.09	(187,005.45)	-74.45%
1978	258,560.14	214,913.22	2,526.87	(212,386.35)	-82,14%
1979	220,417.15	225,563.61	113.63	(225,449.98)	-102.28%
1980	185,987.30	165,698.26	858.24	(164,840.02)	-88.63%
1981	363,522.46	389,268.28	598.82	(388,669.46)	-106.92%
1982	339,359.81	290,113.45	1.25	(290,112.20)	-85.49%
1983	213,518.37	246,679.46	132.59	(246,546.87)	-115.47%
1984	216,798.19	200,982.42	113.63	(200,868.79)	-92.65%
1985	331,478.98	274,419.70	35,050.29	(239,369.41)	-72.21%
1986	317,461.90	283,403.71	327.34	(283,076.37)	-89.17%
1987	340,712.83	262,320.08	577.48	(261,742.60)	-76.82%
1988	370,622.09	284,276.98	0.36	(284,276.62)	-76.70%
1989	432,281.34	341,885.63	15.07	(341,870.56)	-79.09%
1990	443,925.83	425,251.45	708.75	(424,542.70)	-95.63%
1991	515,198.05	459,379.11	185.40	(459,193.71)	-89.13%
1992	716,957.09	755,137.89	5,342.46	(749,795.43)	-104.58%
1993	644,667.80	787,404.44	476.43	(786,928.01)	-122.07%
1994	919,339.08	834,620.20	617.38	(834,002.82)	-90.72%
1995	855,073.69	771,819.50	74.00	(771,745.50)	-90.25%
1996	1,037,019.17	948,593.58	482.28	(948,111.30)	-91.43%
1997	1,218,967.50	1,094,448.16	344.82	(1,094,103.34)	-89.76%
1998	1,013,710.89	1,543,164.95	200.00	(1,542,964.95)	-152.21%

Time Period	Average Percent Net Salvage	Staff's Allowed Net Salvage
1972 - 1980	-67.89%	
1981 - 1989	-86.70%	
1990 - 1998	-103.35%	-15.00%
1972 - 1998	-93.01%	

Schedule 2 Page 4 of 4 Kottemann Surrebuttal

### LACLEDE GAS COMPANY 3950 FOREST PARK AVENUE ST. LOUIS, MISSOURI 63108

May 15, 1996

Mr. Paul Adam Missouri Public Service Commission Truman State Office Building Room 530 301 W. High Street Jefferson City, MO 65102

### Re: Depreciation Study - Case GR-96-193 - Study Documents

Dear Paul:

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Enclosed you will find a work paper relevant to account 362.00, Gas Holders. This document was generated by the Company in response to Public Counsel's Data Request No. 1013.

Sincerely,

Richard A. Kottemann, Jr.

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bc: G. W. Buck M. T. Cline H. R. Haury M. C. Pendergast

> Schedule 3 Page 1 of 2 Kottemann Surrebuttal

### LACLEDE GAS COMPANY CASE NO GR-96-193 DR 1013

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### ACCOUNT 362.00 GAS HOLDERS RETIREMENT VALUE AND NET COST OF REMOVAL

FISCAL	RETIREMENT	COST OF	
YEAR	VALUE	REMOVAL	SALVAGE
1995	8,977.67	2	
1994			
1993			
1992	76.87		
1991			
1990			
1989			
1988			
1987			
1986			
1985			
1984			
1983	16,223.02	1,254.28	
1982	-		
1981			
1980			
1979	600.00	3,678.12	429.12
1978			
1977			
1976			
1975	71,402.02	20,554.75	
1974			
1973			
1972			
1971	956.28	15,382.99	
1970	107,527.17	6,973.99	
1969			
1968		:	
1967	2,143.49	550.58	
1966	283,120.41	6,904.64	5,796.85
1965		130.27	
1964	5,154.39	975.00	
1963	40,641.75	6.90	1,125.00
1962		50.13	

Schedule 3 Page 2 of 2 Kottemann Surrebuttal ÷

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#### 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

STATE OF MISSOURI ) ) SS. CITY OF ST. LOUIS )

Richard A. Kottemann, Jr., of lawful age, being first duly sworn, deposes and states:

1. My name is Richard A. Kottemann, Jr. My business address is 3950 Forest Park Avenue, St. Louis, Missouri 63108; and I am Superintendent of Environmental and Design Engineering of Laclede Gas Company.

2. Attached hereto and made a part hereof for all purposes is my surrebuttal testimony, consisting of pages 1 to 15 and three schedules, inclusive.

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

Richard A. Kottemann, Jr.

Subscribed and sworn to before me this \_\_\_\_ day of August, 1999.

ana BARBARA ANN MCCARTHY St. Louis County My Commission Expires February 16, 2003