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

LACLEDE GAS COMPANY

GR-99-315

REBUTTAL TESTIMONY

OF

RICHARD A. KOTTEMANN, JR.

REBUTTAL TESTIMONY OF RICHARD A. KOTTEMANN, JR.

Q. Please state your name, title and business address.

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

Q. Are you the same Richard A. Kottemann, Jr. who submitted pre-filed direct testimony in this case?

A. Yes, I am.

Q. What is the purpose of your testimony?

A. I will respond to a portion of the direct testimony of Staff Witness Paul W. Adam concerning Gas Holders, Account 362. Another Company witness, Dr. Ronald White, will address other portions of Mr. Adam's testimony.

More specifically, I will respond to Mr. Adam's statements concerning the need for the holders in Laclede's system and the expected retirement dates for the holders. I will discuss the recent history of Company and Staff recommendations for depreciation for the holders and I will point out certain errors or misstatements in Mr. Adam's direct testimony.

Q. Are the four gas holders used and useful?

A. Yes. The holders and their ancillary equipment are productively in service. Mr. Adam's statement on page 12,

lines 1-4 in his testimony suggests otherwise, but the holders remain in use at times for needle peaking and at times for absorbing excess gas supply.

Q. On page 10, lines 20-24, Mr. Adam states that in 1996 Company engineers "stated that within 10 years the four Gas Holders would be removed". Can you provide any evidence to support or dispute this?

A. Attached is an excerpt from the direct testimony of Laclede witness Harry R. Haury III in Case No. GR-96-193, concerning the average remaining life of the holders. (Schedule 1) It is plain from this testimony that Mr. Haury proposed 10 years as a reasonable average remaining life of this property, not a deadline for the retirement of the last item of property. (See especially page 5, lines 7-14 of Schedule 1.)

My testimony in our last rate case and the instant case similarly proposed an estimate for the average remaining life. I do not believe statements by Company engineers would have contradicted this clear record of testimony as Mr. Adam states. I believe rather that Mr. Adam misinterpreted the testimony.

Q. I refer you to page 5, lines 1 and 2 of the Haury testimony. Has there been a "major component failure" since Mr. Haury testified?

A. No.

Q. On page 11, lines 3-9, Mr. Adam outlines Company proposals in this case and the last case, pointing out that the proposals are approximately equivalent in terms of depreciation amount and remaining life. Is this unusual?

A. I do not consider it unusual that the Company would submit a proposal in a rate case that is similar in effect to a proposal that was made in the previous case. I regard this as consistent and predictable, since the prior request was not implemented.

Q. On page 11, lines 15-23, Mr. Adam discusses coal fired power plants. Do you consider gas holders comparable to power plants?

A. No. In terms of scale and function, I would rather compare holders to major electric substations. Even considered together they are nowhere near the scale of a power plant.

Q. Are you surprised at Mr. Adam's testimony characterizing the gas holder removal cost as "final retirement" costs, distinct from "interim retirement" costs and declaring that depreciation on the holders should be stopped?

A. Yes. The Company expected Staff to support a depreciation rate on the gas holders which included net removal costs based upon completion of the most recent of the studies requested by Staff.

Q. Please explain.

A. In Case No. GR-94-220, Mr. Adam testified that the Company's estimates of significant removal costs should not be incorporated into its depreciation rates because of "the absence of verifiable data" concerning the cost of removal. At the conclusion of that case Mr. Adam wrote a letter to Mr. George M. Russell, a Company executive, stating that the Staff position on holder depreciation was to allow the Company to recoup retirement and remediation cost "from current customers rather than passing these cost on to future customers". His letter recognizes the need to estimate a retirement date. He discusses the need he sees for using an environmental remediation company to study costs for use in determining depreciation rates in the future. Mr. Adam attached a copy of the letter to his testimony in Case No. GR-96-193, and I attach one hereto as Schedule 2.

In March 1996, the Staff Manager of Depreciation, David Birenbaum, addressed a letter to Mr. Haury which stated that the Staff would continue to work with Laclede in regard to the cost of removing the holders. I discussed in my direct testimony in the instant case a new study to substantiate the cost estimate of holder removal, which study was undertaken upon the express recommendation of Mr. Adam.

In Case No. GR-96-193 the Company sought and was

granted a 10-year remaining life solely for the purpose of the rate calculation. The Stipulation makes reference to gas holders as follows:

> **The parties expressly acknowledge that the depreciation rate recommended herein for Account 362 does not resolve the issue of what level of costs should be reflected in such rates to reflect the estimated future cost of removal associated with sludge materials contained in Laclede's four remaining holders. Laclede agrees to cooperate with the Staff in advance of its next general rate case filing to develop a mutually acceptable estimate of such costs for consideration in the establishment of a future depreciation rate or other appropriate recovery mechanism for this account.**

This gives every appearance to me that a recommendation to increase the depreciation rate on Account 362 would be forthcoming from Staff upon satisfactory estimation of the removal cost for the sludge materials at the bottom of the gas holders.

Q. Did Laclede comply with these provisions of the Stipulation?

A. Yes. In Case GR-98-374, Laclede once again sought recognition for the estimated cost to process and dispose of the holder sludge. As my testimony in both that, and this case describes, Laclede was put in contact with Creamer Environmental, Inc., an environmental contractor recommended by Mr. Adam. In the interim between Case No. GR-96-193 and Case No. GR-98-374, Laclede engaged the firm Mr. Adam recommended to help Laclede substantiate the

sludge volume. A Creamer representative came to St. Louis from New Jersey and examined the holders. Creamer quantified a pattern of sludge accumulation within the Laclede holders that was typical of many other holders that their firm had actually dismantled. The results of the Creamer study and cost estimate are shown in my Schedule 3, and it is this estimate which is incorporated in my recommended rate for Account 362 in this case.

Q. Did Staff finally react favorably to this estimate which Laclede secured with Mr. Adam's assistance?

A. Mr. Adam's testimony in GR-98-374 was silent on the gas holders issue. The Creamer report was discussed at the Prehearing Conference, but the depreciation issue was again settled with no change in the rate on Account 362.

Q. After presenting the results of the study that was made in response to Mr. Adam's most recent request and performed by the very firm recommended by Mr. Adam, how do you view Mr. Adam's position that depreciation should now be stopped?

A. Having fulfilled all of Mr. Adam's previous demands in connection with this issue, it is disconcerting to say the least to now read in Mr. Adam's direct testimony that, verifiable cost estimate or not, a depreciation allowance for this removal cost cannot be made.

Q. Please discuss the amount of depreciation reserve the Company projects to be needed for retirement of the four holders.

A. The total reserve requirement is estimated at $6.6 million. Of this amount, $1.8 million is attributable to the original cost of plant in service, and $4.8 million is the estimated net cost of removal. In his testimony on page 12, lines 1-4, Mr. Adam has apparently overlooked the need for reserving the original cost of depreciable property in addition to considering net cost of removal.

Q. I refer you to page 12, lines 10-13 of Mr. Adam's testimony. Please discuss the removal cost of the last holder retired by Laclede Gas Company.

A. The last gas holder Laclede retired was removed in 1975. Records show the removal cost of the holder structure was approximately equal to the scrap value of the steel. In addition to this small net amount of structure demolition/salvage, Company labor and material were used to remove piping and appurtenances from the distribution system and to complete other related work related to the holder removal. All totaled, there is certainly a net cost of removal (negative net salvage) for this historical retirement.

Q. Have additions of distribution system assets such as feeder mains and main pressure upgrades reduced the necessity of using gas holders gradually over the years?

A. Yes. As I noted in my direct testimony, this trend has been gradual, and it is not yet complete.

Q. How do you respond to Mr. Adam's suggestion at pages 12-14 of his direct testimony that Laclede management is to blame for some of the cost of removal of the holders?

A. These claims are without basis in fact. Mr. Adam suggests that this property was kept in service arbitrarily while removal procedures became more complicated and costly. In reality, we have recognized more costs in our estimates because, in the time we have devoted to this topic with the Staff (without seeing results in the form of depreciation dollars), we have become more fully aware of the various environmental costs we face.

Q. Could you please summarize your testimony?

A. In summary, the direct testimony of Mr. Adam in this case is inaccurate, and is totally inconsistent with previous Staff testimony and correspondence in this matter.

Q. Does this complete your rebuttal testimony?

A. Yes, it does.

DIRECT TESTIMONY OF HARRY R. HAURY, III

Q. Please state your name and business address.

A. My name is Harry R. Haury, III, and my business address is 3950 Forest Park Avenue, St. Louis, MO 63108.

Q. What is your present position?

A. I am Laclede's Assistant Vice President and Chief Engineer.

Q. How long have you held this position, and would you briefly describe your duties?

A. I was appointed to this position on September 1, 1992. In this capacity I manage the entire range of Company engineering, environmental matters, and distribution system records. Among other responsibilities, these areas provide most of the design, cost analysis, planning, and budgeting functions within the Operating Departments. All cost projections and estimates for operations other than gas supply costs are made or reviewed by my responsibility area.

Q. What is your educational background?

A. I received a Bachelor of Science Degree in Chemical Engineering in 1978 and a Masters Degree in Business Administration in 1979, both from Washington University in St. Louis. I am a registered professional engineer in the State of Missouri.

Q. Please describe your experience with Laclede.

A. I have been continuously employed by Laclede since June of 1978. Prior to my current position, I have held a variety of positions in the Distribution Design, Project Engineering, Planning and Development, and Construction and Maintenance Departments.

Q. Have you previously testified before this Commission?

A. Yes, I submitted testimony in two of Laclede's general rate cases, Case No. GR-84-161 and GR-90-120 regarding, among other things, cost allocation, rate design and the economic impact of various operating rule changes. I also submitted testimony in GA-90-280 regarding the Company's Franklin County expansion.

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

A. In Case GR-94-220, the Company filed extensive testimony concerning appropriate depreciation rates for major plant items. As part of that testimony, the Company sought to establish depreciation and retirement costs for the gas holders.

Q. Why is this a major issue for the Company?

A. Current depreciation rates do not include recovery of realistic projected retirement costs.

Q. Please explain.

A. When the holders were constructed, and during the majority of their service life since then, demolition and removal would have been straight forward and the costs would have been largely offset by the salvage value of the steel in the

holders. Current depreciation rates estimated the net demolition cost at $220,801.

Q. What has changed?

A. The Federal and State Governments have promulgated a variety of environmental and worker safety rules and regulations that will require a considerable increase in the cost of disposal.

Q. Can you explain further?

A. The holders were built at a time when the negative impacts of lead based paint and tars on health and the environment were not understood. During the era of manufactured gas plants, gas streams contained a variety of BTEX and tar compounds. These materials tended to deposit on the inside of the holders. Tar compounds were also used as coating materials on the outside of the holders to prevent corrosion. Due to the interlocking design of the holder sections, this material has also accumulated in the holders over the years. Further, portions of the structure have been painted with lead based paints and asbestos is contained in the coatings on various plant piping and in other miscellaneous construction materials.

Q. Is this a hazard to current workers or the public?

A. No. All materials are properly contained and exposure is controlled. However, during demolition and removal, considerable costs will be incurred to insure worker and public safety.

Q. How much will it cost to demolish all of the holders?

A. Total cost to remove them is estimated to be $8,723,900.

Q. What is the basis for this estimate?

A. Laclede engaged the services of Black & Veatch, under my supervision and direction, to conduct a study and prepare a report as to the estimated cost of demolishing and performing required remediation of the gas holders.

Q. Describe the nature of the study and the conclusions reached by the report.

A. The study shows that there will be a number of major contributing factors to the cost of retirement, including the demolition, removal and disposal of asbestos and lead wastes, and disposal of the holder water and the tars found in the holders. The study took known and estimated engineering factors and projected total project costs.

Q. Is this amount adequate for all removal and site restoration?

A. This estimate will fully cover all costs associated with removal of the holders given that the assumptions regarding hazardous waste volumes are accurate. Historic evidence at other holder stations would suggest that the estimated volumes on tar are probably low but we have no technical means of verifying larger volumes at this time. Therefore, the Company has chosen to use a conservative base volume estimate.

Q. Are there other factors involved in the estimated annual depreciation expense?

A. Yes. The cost to remove the holders is not the only variable. The length of remaining life also has to be estimated.

Q. How is this done?

A. The holders are perfectly serviceable and will continue to be barring any major component failures. However, the nature of our distribution operations has changed significantly over the past several years with the advent of FERC Order 636 and the addition of an alternate gas supplier to the system. Moreover, this trend will continue. As system pressure requirements change, gas supply issues evolve, and public pressure regarding holder appearance increase, there has been a declining value to continuing holder operations. It is our opinion that the holders have a remaining life of 7 - 10 years based on these factors. As such the Company is seeking to use an assumed life of 10 years.

Q. Could it be longer than 10 years?

A. All current operations point to an assumed life of 10 years or less. It is possible that one or more of the holders would still be in service after 10 years. But in my judgment, it is more likely that the first holder retirements will start prior to the end of the 10 year period.

Q. Please explain?

A. At my direction the Company continually reviews the design of its distribution system. Former design methodologies dictated that the distribution system was operated in such a way as to maintain minimum distribution system pressures. As older mains are replaced with newer materials, the company has shifted its focus toward installing smaller mains and operating the system at higher pressures. This change in design philosophy has been implemented to reduce system replacement and reinforcement costs. The increased distribution system

pressures, however, decrease the effectiveness of the holders since the existing outlet compressors were designed for lower distribution system pressures. This trend will eventually eliminate the ability to effectively use the holders at times of peak demand. Current trends and developments in the distribution system point to an expected life of 7-10 years.

Q. Are there any other factors involved in judging remaining life?

A. Yes, three of the four holders are located near residential areas and public sentiment may grow to eliminate them for appearance reasons. Further, any major component failure in a holder would result in the loss of its use. In most situations it would not be economically feasible to repair it and it would be retired at that point. Although it is impossible to determine when such failures might occur, this possibility needs to be considered in determining probable remaining life.

Q. Does this conclude your testimony?

A. Yes it does.

Missouri Public Service Commission

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August 5, 1994

Mr. George M. Russell
Laclede Gas Company
3950 Forest Park Blvd.
St. Louis, MO 63108

Dear George:

With the settlement of Laclede's filing in GR-94-220 the discussions that we had left Gas Holders with no plan to recoup retirement and remediation cost.

Our position is that it is better to recoup retirement and remediation cost from current customers rather than passing these costs on to future customers. The annual depreciation expense for Gas Holders has the potential for a significant change from that currently approved. Accrual at a revised rate should begin as soon as practicable.

The staff recognizes that these units have a definite life span and although the date to take the gas holders out of service is unknown, such a date can be estimated from historical data from Laclede and other gas service companies.

The cost of dismantling and remediation must be a reliable figure based on what we know when a study is conducted. We can do no better than to use current guidelines for environmental cleanup and the associated current cost. If the cost changes after some period of time, then a rate adjustment would be made at that time.

With the absence of an experienced environmental remediation organization within Laclede and the Missouri Public Service Commission the reasonable way to have a verifiable cost of removal and remediation based on known materials and measured quantities is to have an environmental remediation company complete a thorough study and bid on each of the four gas holders. From these bids a depreciation rate can be determined for Laclede's next rate case.

This supporting work, determination of life span and environmental study and bid, will allow the staff of the Missouri Public Service Commission to support a life span depreciation evaluation of the Gas Holders account.

Another account that may need a remedial study and a life span analysis is the Liquified Petroleum Gas Storage Cavern (LPG Cavern).

The LPG Cavern has a definite life. A best estimate of this life can be made and adjusted when more data is available to allow Laclede to fully recoup abandonment and remediation cost.

Laclede's current proposal is to load the LPG Cavern with a 2% KCL solution when it is abandoned. This sounds reasonable for an oil field operation but may have shortcomings from an environmental point of view.

We are fully aware that a major New Madrid earthquake can expect to occur in the next fifty years. If the LPG Cavern is in operation at that time there is potential that a fracture would allow the liquid/gas to get into fresh water zones, but as the fresh water is used the gas would vent and appear to be a minor inconvenience. If the LPG Cavern is abandoned and loaded with 33,400,000 gallons of KCL water the question becomes, is this an acceptable environmental medium if it migrates into fresh water zones after the earthquake?

The staff is not proposing an abandonment procedure but is suggesting that a thorough analysis of the abandonment be undertaken considering events that have high likelihood of occurring in the future. Also, the staff's position will be that these costs should be recovered from current customers over the estimated remaining life of the property rather than amortizing the cost to customers after the facility is taken out of use.

George, we look forward to working with you when Laclede files again. We would like to start communication early so the process can go smoothly and develop depreciation methods that allow Laclede to fully recover costs in a reasonable manner.

Sincerely,

Paul Adam, P.E.
Engineer-Depreciation

PA:njm

Laclede Gas Company Revision : May 28, 1998
Holder Sludge Removal and Disposal

Section A. Holder Characteristics - Physical Properties

	Station N	Shrews 24	Shrews 23	Station G	Totals
Year Constructed Circa	1930	1940	1925	1901	
Holder Capacity (MMCF)	10	5	3	4.05	
Number of Lifts	5	5	4	4	
Diameter of Holder (ft)	275	204	178	211	
Area under cups (sq.ft.)	6300	4628	3240	3862	18030
Remaining Area (sq.ft)	53066	28041	21631	31087	133825
Total Area of base (sq.ft.)	59366	32669	24872	34949	151855
Water height of Well (ft)	38	36	36	33	
Volume of Well (gal)	16874085	8735900	6604495	8626807	40841287

Section B. Sludge Characteristics

Volume of sludge/water (gal) **	358865	209060	156346	212798	937069
Volume of sludge (4.5 red.) (gal)	79748	46458	34744	47288	208238
Volume of centrate water (gal)	279117	162602	121603	165510	728831
Volume of Rain Water (1.5")(gal)	55507	30545	23255	32677	141985
Volume of Rain & Centrate (gal)	334624	193147	144858	198187	870816

Section C. Field Operations Costs

Centrifuge Duration (days)	29	16	12	17	
Centrifuge Cost ($)	$121,104	$66,816	$50,112	$70,992	$309,024
Sludge Removal ($)	$248,482	$162,388	$121,687	$162,388	$694,945
Total Removal/Disposal Prep ($)	$369,586	$229,204	$171,799	$233,380	$1,003,969

Section D. Disposal and Other Related Costs

Sludge Landfill ($)	$75,050	$43,700	$32,680	$44,460	$195,890
Centrate Transport & Disposal ($)	$398,176	$229,862	$172,396	$235,877	$1,036,311
Total Costs (Sections C & D) ($)	**$842,812**	**$502,766**	**$376,875**	**$513,717**	**$2,236,170**

** The sludge/water content is based upon historic observations of similiar holders. A reasonable estimate of the volume of sludge/water found in a holder can be made by assuming the cup area contains a two (2) ft depth of sludge while the remaining area (center to first lift) contains an eight (8) inch depth of sludge.

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

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

A F F I D A V I T

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 rebuttal testimony, consisting of pages 1 to 8 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.

R A Kottemann Jr

Richard A. Kottemann, Jr.

Subscribed and sworn to before me this 5th day of August, 1999.

Barbara Ann McCarthy

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