Exhibit No.:	
Issues:	Normal Billing Units
Witness:	Henry E. Warren
Sponsoring Party:	MoPSC Staff
Type of Exhibit:	Direct Testimony
Case No.:	GR-2001-629
Date Testimony Prepared:	October 11, 2001

MISSOURI PUBLIC SERVICE COMMISSION

UTILITY OPERATIONS DIVISION

DIRECT TESTIMONY

OF

HENRY E. WARREN, PHD

LACLEDE GAS COMPANY

CASE NO. GR-2001-629

Jefferson City, Missouri
October 2001

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DIRECT TESTIMONY

OF

HENRY E. WARREN

LACLEDE GAS COMPANY

CASE NO. GR-2001-629

Q. Please state your name and business address.

A. My name is Henry E. Warren and my business address is P. O. Box 360, Jefferson City, Missouri, 65102.

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

A. I am employed by the Missouri Public Service Commission (PSC or Commission) as a Regulatory Economist in the Energy Department of the Utility Operations Division.

Q. How long have you been employed by the Commission?

A. I have worked at the Commission nine years.

Q. What is your educational and professional background?

A. I received my Bachelor of Arts and my Master of Arts in Economics from the University of Missouri-Columbia, and a Doctor of Philosophy (PhD) in Economics from Texas A&M University. Prior to joining the PSC Staff (Staff), I was an Economist with the U.S. National Oceanic and Atmospheric Administration (NOAA). At NOAA I conducted research on the economic impact of climate and weather. I began my employment at the Commission on October 1, 1992 as a Research Economist in the

Economic Analysis Department. My duties consisted of calculating adjustments to test-year energy use based on test-year weather and normal weather, and I also assisted in the review of Electric Resource Plans for investor owned utilities in Missouri. From December 1, 1997, until May 2001, I was a Regulatory Economist II in the Tariffs/Rate Design Section of the Commission's Gas Department where my duties include reviewing tariff filings, applications and various other matters relating to jurisdictional gas utilities in Missouri. On June 1, 2001 the Commission organized an Energy Department and I was assigned to this Department in the Tariff/Rate Design Section. My current duties are similar to my previous duties.

Q. Are you a member of any professional organizations?

A. Yes, I am a member of the International Association for Energy Economics and the Western Economics Association.

Q. Have you previously filed testimony before the Commission?

A. Yes, I have filed testimony in the cases listed in Schedule 1 attached to this testimony.

Q. What is the purpose of your direct testimony?

A. My direct testimony covers two areas. The first is the adjustment of test-year therms for gas water-heating use. The inputs and results of the regression and this procedure are shown in Schedule 2-1 for residential customers and Schedule 2-2 for commercial general service customers.

Second, I did the billing unit allocation for adjustments to test-year therms for Laclede's general service rate classes computed by Staff Witness James Gray of the PSC Energy Department based on the difference between test-year and normal weather.

The monthly, test-year therms, computed adjustments allocated to the rate blocks, and the final results of this adjustment for weather are shown on Schedule 3 for the Laclede Division; Schedule 4 for the Missouri Natural and Franklin County Divisions combined; Schedule 5, for the Midwest Division; and Schedule 6 for the St. Charles Division.

ADJUSTMENT TO TEST-YEAR THERMS FOR WATER-HEATING

Q. Why do you attempt to account for seasonal differences in the use of gas for water-heating in the adjustment procedure for weather?

A. In the 1990-91 NAF Study (Normalization Adjustment Factor) the Company presented a method in a study conducted by the Company and provided to the Staff. This study estimated the gas required to heat a gallon of water in the non-heating season compared to the gas required to heat a gallon of water in the heating season. The Company identified a subset of residential and commercial customers through a process of screening monthly, seasonal and annual customer bills. This process had the goal of identifying customers that use gas for water-heating but not for space heating. The Company used the monthly therms of this subset to compute its adjustment of 1.35 as the annualized differential between therms used for water-heating in the non-heating season vs. the heating season. The Company postulated that the primary determinant of the temperature of water entering the water heater is the temperature of the water at its source. For most of the service territory the source is the Missouri River.

Q. Are river water temperatures available for the Company Service Territory?

A. Yes, Mr. Dennis Patterson of the PSC Energy Department obtained daily Missouri River water temperatures since 1986 from the U.S. Army Corps of Engineers

(USACE). Most of the customers located within the Company's service territory use water taken from the Missouri River. Most of the remaining customers in the service territory obtain water from the nearby Mississippi River or Meramec River. It is assumed that the daily Missouri River water temperature is a reasonable proxy for the water in other nearby rivers.

Q. How does Staff use these daily river water temperature data in the analysis of gas use for water-heating?

A. Mr. Dennis Patterson used the daily average water temperatures (Tw) to compute a daily series of Water-heating Degree Days (WHDD) to the industry standard base temperature of 140oF (WHDD = 140 - Tw). Mr. Patterson also estimated a set of normal WHDD. The procedures and results are presented in his testimony. WHDD are used in models of gas use for water-heating therms for differences in test-year weather and normal weather.

Q. Has the Staff investigated the seasonal difference in the use of gas for water-heating?

A. Yes in a prior Laclede Rate Case (GR-92-165) Mr. Dennis Patterson presented a method different from the NAF method used by the Company. Subsequent to that case, the Company agreed to supply data for an updated period (July 1992-June 1993). Working with Mr. Patterson and Mr. James Gray, I have made an evaluation of various methods for estimating normal water-heating use. These are the methods: 1) Laclede's NAF method with alternatives that allow adjustments to test year usage as the result of the variation of water-heating use with water temperatures; 2) Staff's water-

heating degree day method using WHDD from the Missouri River; and 3) End-Use methods including models from both Laclede and the Gas Research Institute (GRI)

Q. What are the results of your evaluation of these various methods?

A. The primary result is that there is a clear and strong correlation between water-heating use and WHDD. This has two major implications for a rate case. First, to properly estimate water-heating use for a test-year, WHDD from that same test-year must be used as a basis for the estimate. Second, because water-heating degree days can vary significantly from year-to-year, test-year water-heating use should be adjusted for these variations.

Q. In this case, what method did you use to adjust the test-year usage for variations in gas use for water-heating?

A. The method I used was the same as in a previous Laclede Rate Case (GR-94-220). This method is similar to one the method developed by Mr. Dennis Patterson in Laclede Rate Case No. GR-92-165.

Q. Will you briefly describe the procedure?

A. Yes, the procedure uses estimates from the Company's NAF study data over the period July 1992 through June 1993. I used the monthly therms and customers from the subset to quantify the relationship between the monthly therms for water-heating and the WHDD computed by Mr. Dennis Patterson. The results for residential customers are in Schedule 2-1, and for commercial customers in Schedule 2-2.

Q. How are these results used in the process of adjusting test-year usage?

A. Mr. James Gray used the WHDD coefficients, (0.01159, for residential and 0.04590 for commercial) in calculating the weather adjustment to usage for Laclede's

general service customers. Using the monthly WHDD for the test-year estimates the portion of average daily therms per customer each month used for water-heating. Mr. James Gray subtracts the estimated therms for water-heating from the daily usage per customer in each month of the test-year. The remainder of the daily therms per customer for each month are adjusted for space heating usage using Heating Degree Days (HDD) as described in the testimony of Mr. James Gray.

GENERAL SERVICE BILLING DETERMINANTS

Q. What are the billing determinants established for the general service class by the current rate design and how are Mr. James Gray's usage adjustments for weather allocated according to these billing determinants?

A. The three General Service (GS) class rates are differentiated into two blocks and two seasons. The first block for the residential class contains usage from 0 - 65 therms per billing cycle and the second block contains all usage over 65 therms per month. The first block for the commercial and industrial classes contains usage from 0 – 100 therms per billing cycle and the second block contains all usage over 100 therms per month. The two seasons are the heating season, November through April and the non-heating season, May through October. In order for Staff Witness John Cassidy of the PSC Accounting Department to compute the revenues associated with the weather adjusted therms, these therms must be properly allocated to the block and season to determine the rate at which they would be billed.

Q. What data are used to compute these billing determinants?

A. The Company provided Staff with bill frequency runs for rate codes and customer classes served on the GS tariff. I used the Company's bill frequency runs (March 1998-February 1999) to determine the percentage of usage falling into each rate block for each month. Because the rates are the same for all divisions, the monthly data were aggregated over the divisions for the GS rate codes -- residential, commercial, and industrial.

Q. How did you use that data to determine normal billing determinants for the test-year?

A. For each customer class the monthly bill frequency data and the percent of use in the initial block is highly correlated with the monthly average use per customer per day. I used regressions to estimate an equation that quantified the relationship between the percentage of use in a given block in a month and the average use per customer per month. I used this in order to estimate actual and normal billing units in each month; the normal usage per customer in each of the four divisions was substituted for actual in the estimated regression equations. This was applied in each division separately because the use per customer varies between divisions. The difference between the predicted normal therms and predicted actual therms gives an estimated adjustment for each month for the first block and the adjustment in the second block is set equal to the total minus the initial block adjustment.

In each month the block adjustments are restricted so the blocks cannot go in a different direction than the total adjustment. If the block adjustments initially have opposite signs, the adjustment of the therms in the first block is set to zero. The second block is then equal to the total adjustment. The monthly adjustments to test-year therms

in the blocks are in the center column of the Tables in Schedules 3, 4, 5, and 6. The monthly adjustments are summed into an Annual total and Seasonal totals. The Seasonal totals are a heating season (November-April) and a non-heating season (May-October). To produce consistent seasonal totals for use by the Accounting Staff, the seasonal totals are also balanced for consistency. The annual totals are not affected. The normal billing units for the GS class are obtained by adding the test-year adjustments to the test-year actual therms.

Q. In computing the billing determinants were any adjustments necessary to reconcile the monthly therms in the Company's bill frequency analysis with the monthly therms from Mr. James Gray computed from the Company's billing cycle data?

A. Yes, an adjustment was necessary because in some months the first block therms calculated by Laclede in their bill frequency analysis were greater than the total therms reported in their billing cycle data. The bill frequency data in the first block were adjusted back to the total reported therms for the month in the billing cycle data.

Q. What is the Staff's recommendation for weather adjusted gas usage for the GS residential, commercial, and industrial customer classes?

A. In Schedule 3 through 6 the adjustment therms for each billing month during the test-year appear. The sum of all adjustments across all months, divisions, and customer classes was a net decrease of 10,488,880 therms. These monthly adjustments to the customer classes, and blocks are in Schedules 3 through 6. These adjustments were supplied to Mr. John Cassidy for use in the revenue adjustments.

Q. Does this conclude your pre-filed direct testimony?

A. Yes, it does.

BEFORE THE PUBLIC SERVICE COMMISSION

OF THE STATE OF MISSOURI

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

AFFIDAVIT OF HENRY E. WARREN

STATE OF MISSOURI)
) **ss**
COUNTY OF COLE)

Henry E. Warren, of lawful age, on his oath states: that he has participated in the preparation of the foregoing direct testimony in question and answer form, consisting of 8 pages of direct testimony to be presented in the above case, that the answers in the foregoing direct testimony were given by him; that he has knowledge of the matters set forth in such answers; and that such matters are true to the best of his knowledge and belief.

Henry E. Warren

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

Dawn L. Hake
Notary Public

My commission expires

DAWN L. HAKE
Notary Public – State of Missouri
County of Cole
My Commission Expires Jan 9, 2005

MISSOURI GAS ENERGY

GR-2001-292

PREVIOUS CASES IN WHICH PREPARED TESTIMONY WAS PRESENTED BY:

HENRY E. WARREN

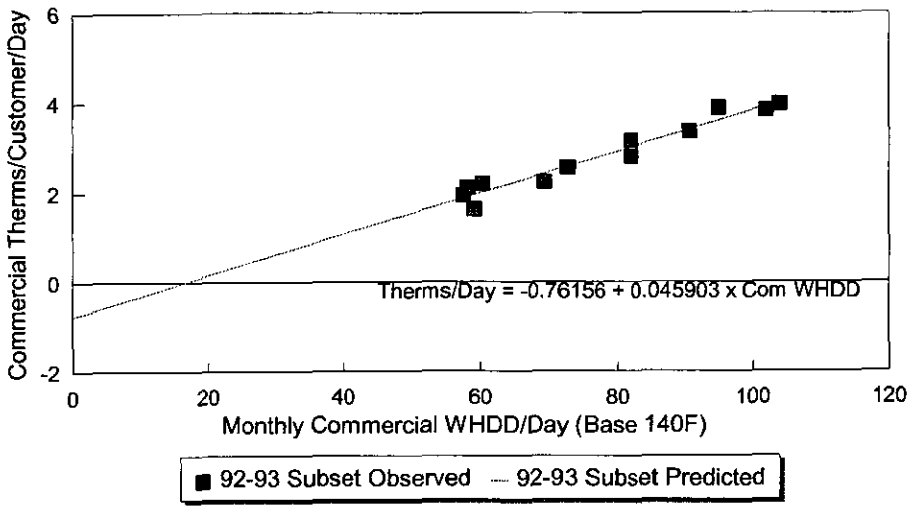
COMPANY NAME	CASE NUMBER
St. Joseph Light and Power Company	GR-93-042[1]
Laclede Gas Co.	GR-93-149
Missouri Public Service	GR-93-172[1]
Western Resources	GR-93-240[1]
Laclede Gas Co.	GR-94-220[1]
United Cities Gas Co.	GR-95-160[1]
The Empire District Electric Co.	ER-95-279[1]
Laclede Gas Co.	GR-96-193[1]
Missouri Gas Energy	GR-96-285[1]
The Empire District Electric Co.	ER-97-081[1]
Union Electric Co.	GR-97-393[1]
Missouri Gas Energy	GR-98-140[1]
Laclede Gas Co.	GR-98-374[1]
St. Joseph Light & Power Company	GR-99-246[1]
Laclede Gas Co.	GR-99-315[1]
Union Electric Company (d/b/a AmerenUE)	GR-2000-512[1]
Missouri Gas Energy	GR-2001-292[1]

1 Testimony includes computations to adjust test year volumes, therms, or kWh to normal weather.

Laclede Gas Company
Case No. GR-2001-629

Commercial Water Heating

Water Heating, Non-Space Heating Customer Subset
Study Period July 1992 - June 1993, All Divisions (unweighted)



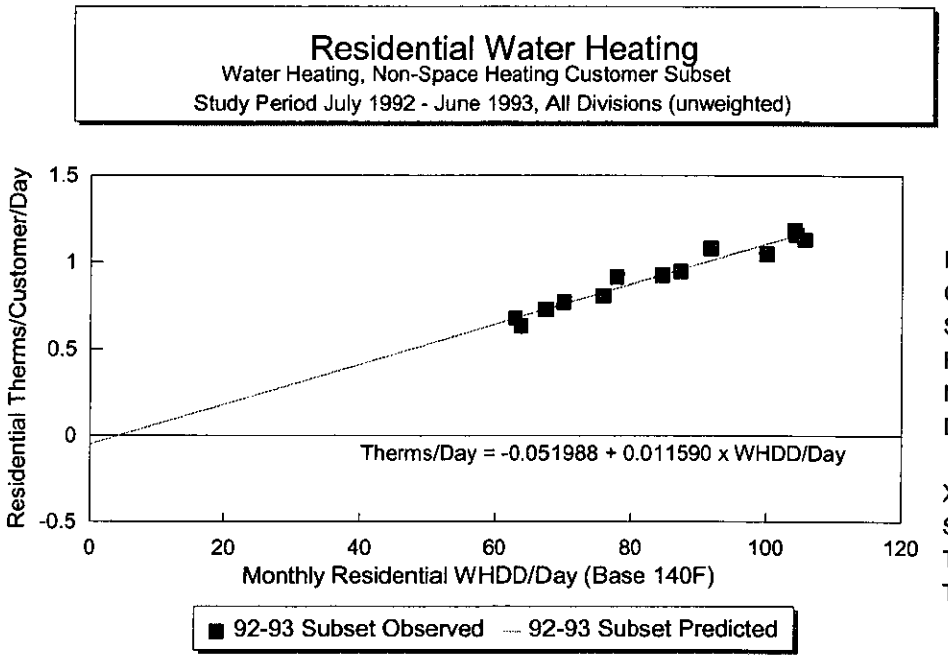
Commercial Water Heating

Regression Output:	
Constant	(0.76156)
Standard Error of Y Estimate	0.193935
R Squared	0.948799
No. of Observations	12
Degrees of Freedom	10
X Coefficient	0.045903
Standard Error of X Coefficient	0.003372
T Statistic (X Coefficient)	13.612824
T Statistic (Constant)	(3.926870)

Study Year 1992-93 Month	Number of Customers	Read Cycle Days	USACE Read Cycle Weighted WHDD/Mo	Subset Use/Cust Water Heat Therms	USACE Read Cycle Weighted WHDD/D	Subset Use/Cust Water Heat Therms/Day	Predicted Use/Cust Water Heat Therms/Day
Jul	265	30.6	1,758	15,663	57.5	1.9334	1.8787
Aug	265	28.5	1,686	13,244	59.2	1.6347	1.9565
Sep	265	30.1	1,751	17,152	58.2	2.1172	1.9087
Oct	265	29.7	2,060	18,174	69.5	2.2433	2.4266
Nov	265	30.7	2,521	22,693	82.1	2.8011	3.0056
Dec	265	32.1	2,908	27,265	90.6	3.3654	3.3978
Jan	265	32.3	3,362	32,135	104.0	3.9666	4.0111
Feb	265	30.4	3,099	31,077	102.0	3.8360	3.9215
Mar	265	29.9	2,834	31,441	94.9	3.8809	3.5956
Apr	265	30.7	2,514	25,513	82.0	3.1492	3.0020
May	265	29.8	2,170	20,765	72.8	2.5632	2.5795
Jun	265	30.6	1,846	17,816	60.3	2.1991	2.0066

Schedule 2-1

Laclede Gas Company
Case No. GR-2001-629



Residential Water Heating

Regression Output:	
Constant	(0.051988)
Standard Error of Y Estimate	0.043732
R Squared	0.955088
No. of Observations	12
Degrees of Freedom	10
X Coefficient	0.011590
Standard Error of X Coefficient	0.000795
T Statistic (X Coefficient)	14.582746
T Statistic (Constant)	(1.188784)

Study Year 1992-93 Month	Number of Customers	Read Cycle Days	USACE Read Cycle Weighted WHDD/Mo	Subset Use/Cust Water Heat Therms	USACE Read Cycle Weighted WHDD/D	Subset Use/Cust Water Heat Therms/Day	Predicted Use/Cust Water Heat Therms/Day
Jul	1103	30.6	1,925	22,906	63.0	0.6793	0.6777
Aug	1103	28.5	1,817	19,874	63.8	0.6327	0.6876
Sep	1103	30.1	2,029	24,214	67.4	0.7295	0.7293
Oct	1103	29.7	2,246	26,373	75.7	0.8060	0.8256
Nov	1103	30.7	2,677	32,119	87.2	0.9481	0.9583
Dec	1103	32.1	3,207	37,139	99.9	1.0491	1.1062
Jan	1103	32.3	3,413	40,313	105.5	1.1304	1.1713
Feb	1103	30.4	3,168	38,786	104.3	1.1574	1.1567
Mar	1103	29.9	3,107	39,000	104.1	1.1843	1.1542
Apr	1103	30.7	2,809	36,599	91.6	1.0820	1.0097
May	1103	29.8	2,317	30,097	77.7	0.9154	0.8490
Jun	1103	30.6	2,145	26,056	70.0	0.7715	0.7599

Schedule 2-2

Laclede Gas Company GR-2001-629
Laclede Division
GENERAL SERVICE CLASS

ADJUSTMENTS TO MAR 2000 - FEB 2001 TEST YEAR THERMS

	GENERAL SERVICE CLASS (RESIDENTIAL) TY			Adjustment Therms
		Units by Monthly Category of Bills (Therms)		
Month	Customers	Bills<65	65<Bills	Total Therms
Mar 2000	481,140	2,204,883	10,445,235	12,650,118
Apr	479,796	544,317	490,607	1,034,924
May	477,333	1,916,635	755,327	2,671,962
Jun	474,724	0	78,597	78,597
Jul	473,848	0	(104,099)	(104,099)
Aug	470,413	203,873	224,922	428,795
Sep	469,592	713,061	174,553	887,614
Oct	470,224	(776,782)	(368,129)	(1,144,911)
Nov	472,822	498,951	1,459,819	1,958,770
Dec	478,603	0	(20,070,707)	(20,070,707)
Jan 2001	481,315	0	(9,835,331)	(9,835,331)
Feb	481,475	19,659	5,333,019	5,352,678
ANNUAL	5,711,285	5,324,596	(11,416,188)	(6,091,592)
NOV-APR	2,875,151	3,267,810	(12,177,359)	(8,909,549)
MAY-OCT	2,836,134	2,056,786	761,170	2,817,957

	GENERAL SERVICE CLASS (COMMERCIAL) TY			Adjustment Therms
		Units by Monthly Category of Bills (Therms)		
Month	Customers	Bills<100	100<Bills	Total Therms
Mar 2000	29,709	211,957	4,495,119	4,707,076
Apr	29,459	33,272	334,220	367,493
May	29,492	125,075	706,366	831,441
Jun	29,363	(5,161)	(20,828)	(25,989)
Jul	29,188	(3,705)	(15,302)	(19,007)
Aug	29,167	23,040	91,830	114,870
Sep	28,822	45,799	199,822	245,621
Oct	29,167	(64,023)	(336,039)	(400,063)
Nov	29,317	67,566	770,530	838,096
Dec	29,710	(96,297)	(6,955,670)	(7,051,967)
Jan 2001	29,746	(32,684)	(4,038,475)	(4,071,159)
Feb	29,524	24,710	2,024,229	2,048,939
ANNUAL	352,664	329,548	(2,744,198)	(2,414,649)
NOV-APR	177,465	208,524	(3,370,046)	(3,161,522)
MAY-OCT	175,199	121,024	625,849	746,873

	GENERAL SERVICE CLASS (INDUSTRIAL) TY			Adjustment Therms
		Units by Monthly Category of Bills (Therms)		
Month	Customers	Bills<100	100<Bills	Total Therms
Mar 2000	1,691	10,841	838,895	849,736
Apr	1,661	1,806	59,041	60,847
May	1,680	6,473	113,861	120,334
Jun	1,678	(2,028)	(30,297)	(32,325)
Jul	1,667	207	2,680	2,887
Aug	1,659	731	9,556	10,287
Sep	1,631	1,436	21,047	22,483
Oct	1,653	(4,246)	(73,326)	(77,571)
Nov	1,660	7,726	194,392	202,118
Dec	1,684	(5,834)	(1,150,620)	(1,156,454)
Jan 2001	1,711	0	(843,401)	(843,401)
Feb	1,692	854	387,729	388,583
ANNUAL	20,067	17,966	(470,442)	(452,476)
NOV-APR	10,099	15,393	(513,964)	(498,571)
MAY-OCT	9,968	2,574	43,521	46,095

Laclede Gas Company GR-2001-629
Missouri Natural and Franklin County Divisions
GENERAL SERVICE CLASS

ADJUSTMENTS TO MAR 2000 - FEB 2001 TEST YEAR THERMS

	GENERAL SERVICE CLASS (RESIDENTIAL) TY	Adjustment Therms		
		Units by Monthly Category of Bills (Therms)		
Month	Customers	Bills<65	65<Bills	Total Therms
Mar 2000	26,996	138,524	393,708	532,232
Apr	26,844	24,425	25,989	50,414
May	26,591	90,710	30,815	121,525
Jun	26,295	7,265	864	8,128
Jul	26,074	(6,077)	(642)	(6,719)
Aug	25,797	20,107	1,451	21,558
Sep	25,834	40,429	4,542	44,971
Oct	26,058	(30,342)	(10,774)	(41,115)
Nov	26,581	35,235	54,638	89,873
Dec	27,081	(43,633)	(799,230)	(842,864)
Jan 2001	27,258	(163)	(413,464)	(413,627)
Feb	27,169	19,547	204,734	224,281
ANNUAL	318,578	296,027	(507,370)	(211,343)
NOV-APR	161,929	173,935	(533,626)	(359,690)
MAY-OCT	156,649	122,092	26,256	148,347

	GENERAL SERVICE CLASS (COMMERCIAL) TY	Adjustment Therms		
		Units by Monthly Category of Bills (Therms)		
Month	Customers	Bills<100	100<Bills	Total Therms
Mar 2000	3,784	32,075	275,190	307,265
Apr	3,777	4,447	25,571	30,018
May	3,695	12,313	54,071	66,384
Jun	3,677	1,032	4,020	5,052
Jul	3,641	(769)	(2,910)	(3,679)
Aug	3,620	2,571	9,659	12,230
Sep	3,608	5,024	20,163	25,186
Oct	3,640	(3,620)	(20,093)	(23,713)
Nov	3,728	7,228	42,415	49,644
Dec	3,837	(23,697)	(460,785)	(484,482)
Jan 2001	3,865	(7,128)	(241,008)	(248,136)
Feb	3,864	5,923	126,778	132,701
ANNUAL	44,736	35,399	(166,930)	(131,531)
NOV-APR	22,855	18,848	(231,839)	(212,991)
MAY-OCT	21,881	16,551	64,909	81,460

	GENERAL SERVICE CLASS (INDUSTRIAL) TY	Adjustment Therms		
		Units by Monthly Category of Bills (Therms)		
Month	Customers	Bills<100	100<Bills	Total Therms
Mar 2000	121	610	69,402	70,012
Apr	122	57	1,861	1,918
May	120	624	12,308	12,932
Jun	119	(95)	(1,674)	(1,769)
Jul	119	15	247	263
Aug	118	72	1,122	1,194
Sep	113	82	1,441	1,523
Oct	121	(187)	(4,289)	(4,476)
Nov	123	8	863	872
Dec	127	0	(133,511)	(133,511)
Jan 2001	126	0	(47,739)	(47,739)
Feb	127	0	27,194	27,194
ANNUAL	1,456	1,187	(72,775)	(71,589)
NOV-APR	746	675	(81,930)	(81,255)
MAY-OCT	710	511	9,155	9,667

Laclede Gas Company GR-2001-629
Midwest Division
GENERAL SERVICE CLASS

ADJUSTMENTS TO MAR 2000 - FEB 2001 TEST YEAR THERMS

	GENERAL SERVICE CLASS (RESIDENTIAL) TY			Adjustment Therms
		Units by Monthly Category of Bills (Therms)		
Month	Customers	Bills<65	65<Bills	Total Therms
Mar 2000	15,233	83,953	209,317	293,270
Apr	15,226	15,402	16,024	31,426
May	15,217	45,656	17,189	62,845
Jun	15,231	6,043	1,099	7,142
Jul	15,227	(4,269)	(726)	(4,994)
Aug	15,209	11,053	1,277	12,330
Sep	15,271	24,638	3,835	28,473
Oct	15,364	(31,275)	(405)	(31,680)
Nov	15,444	24,827	36,632	61,460
Dec	15,605	(37,924)	(394,995)	(432,919)
Jan 2001	15,704	(2,372)	(243,423)	(245,795)
Feb	15,663	13,249	115,134	128,384
ANNUAL	184,394	148,981	(239,041)	(90,059)
NOV-APR	92,875	97,135	(261,310)	(164,175)
MAY-OCT	91,519	51,846	22,270	74,116

	GENERAL SERVICE CLASS (COMMERCIAL) TY			Adjustment Therms
		Units by Monthly Category of Bills (Therms)		
Month	Customers	Bills<100	100<Bills	Total Therms
Mar 2000	786	7,089	71,250	78,339
Apr	787	676	4,133	4,809
May	775	3,144	14,499	17,643
Jun	775	160	632	792
Jul	774	(162)	(655)	(817)
Aug	763	531	2,124	2,655
Sep	768	1,067	4,376	5,443
Oct	776	(1,891)	(8,606)	(10,496)
Nov	793	1,637	13,296	14,933
Dec	799	(4,648)	(121,849)	(126,497)
Jan 2001	813	(836)	(57,271)	(58,107)
Feb	832	1,246	29,996	31,243
ANNUAL	9,441	8,015	(48,076)	(40,061)
NOV-APR	4,810	5,165	(60,445)	(55,280)
MAY-OCT	4,631	2,850	12,369	15,219

Midwest GS Industrial -- Not Adjusted for Weather in GR-2001-629

	GENERAL SERVICE CLASS (INDUSTRIAL) TY			Adjustment Therms
		Units by Monthly Category of Bills (Therms)		
Month	Customers	Bills<100	100<Bills	Total Therms
Mar 2000	3	0	0	0
Apr	3	0	0	0
May	3	0	0	0
Jun	3	0	0	0
Jul	3	0	0	0
Aug	3	0	0	0
Sep	3	0	0	0
Oct	3	0	0	0
Nov	3	0	0	0
Dec	3	0	0	0
Jan 2001	3	0	0	0
Feb	3	0	0	0
ANNUAL	36	0	0	0
NOV-APR	18	0	0	0
MAY-OCT	18	0	0	0

Laclede Gas Company GR-2001-629
St. Charles Division
GENERAL SERVICE CLASS

ADJUSTMENTS TO MAR 2000 - FEB 2001 TEST YEAR THERMS

	GENERAL SERVICE CLASS (RESIDENTIAL) TY			Adjustment Therms
		Units by Monthly Category of Bills (Therms)		
Month	Customers	Bills<65	65<Bills	Total Therms
Mar 2000	72,967	373,304	1,191,469	1,564,772
Apr	73,245	64,373	76,495	140,868
May	73,410	249,894	105,054	354,948
Jun	73,419	18,095	3,721	21,816
Jul	73,586	(15,613)	(2,457)	(18,070)
Aug	73,626	55,077	8,083	63,160
Sep	73,778	106,349	22,331	128,680
Oct	74,242	(95,754)	(35,132)	(130,886)
Nov	74,771	84,093	160,956	245,048
Dec	75,245	(108,451)	(2,451,206)	(2,559,656)
Jan 2001	75,483	0	(1,205,915)	(1,205,915)
Feb	75,541	32,603	627,602	660,205
ANNUAL	889,313	763,970	(1,498,998)	(735,029)
NOV-APR	447,252	445,921	(1,600,598)	(1,154,677)
MAY-OCT	442,061	318,048	101,600	419,649

	GENERAL SERVICE CLASS (COMMERCIAL) TY			Adjustment Therms
		Units by Monthly Category of Bills (Therms)		
Month	Customers	Bills<100	100<Bills	Total Therms
Mar 2000	3,775	31,492	397,635	429,126
Apr	3,774	4,825	35,187	40,012
May	3,754	13,241	73,935	87,176
Jun	3,752	495	1,889	2,384
Jul	3,719	(765)	(3,182)	(3,948)
Aug	3,696	2,565	10,674	13,239
Sep	3,685	5,864	25,214	31,078
Oct	3,741	(9,362)	(48,221)	(57,583)
Nov	3,829	8,677	82,706	91,383
Dec	3,943	(18,956)	(659,383)	(678,338)
Jan 2001	3,937	(4,621)	(363,205)	(367,826)
Feb	3,933	5,031	184,291	189,322
ANNUAL	45,538	38,485	(262,459)	(223,974)
NOV-APR	23,191	26,448	(322,769)	(296,320)
MAY-OCT	22,347	12,037	60,310	72,346

	GENERAL SERVICE CLASS (INDUSTRIAL) TY			Adjustment Therms
		Units by Monthly Category of Bills (Therms)		
Month	Customers	Bills<100	100<Bills	Total Therms
Mar 2000	36	0	37,955	37,955
Apr	36	3	1,178	1,181
May	36	118	6,270	6,388
Jun	36	(44)	(1,203)	(1,248)
Jul	36	5	122	127
Aug	38	12	444	456
Sep	36	41	1,496	1,537
Oct	36	(102)	(7,860)	(7,962)
Nov	36	0	7,027	7,027
Dec	35	(11)	(59,616)	(59,627)
Jan 2001	35	(222)	(29,742)	(29,964)
Feb	36	10	17,544	17,553
ANNUAL	432	(191)	(26,385)	(26,577)
NOV-APR	214	(221)	(25,654)	(25,875)
MAY-OCT	218	30	(732)	(702)