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ACCOUNTING DEPT.
PUBLIC SERVICE COMMISSION

Exhibit No.:

Witness: Imhoff, Sommerer, Thompson

Type of Exhibit:

Prepared Testimony

Company: Grand River Mutual

Telephone Corporation

Case No.: TR-85-242

MISSOURI PUBLIC SERVICE COMMISSION UTILITY DIVISION

PREPARED TESTIMONY

OF

THOMAS M. IMHOFF

DAVID M. SOMMERER

RACHELLE L. THOMPSON

FILED

NOV 22 1985

PUBLIC SERVICE COMMISSION

Jefferson City, Missouri November, 1985

### PREPARED TESTIMONY

OF

#### DAVID M. SOMMERER

#### GRAND RIVER MUTUAL TELEPHONE

### CASE NO. TR-85-242

- Q. Please state your name and business address.
- A. David M. Sommerer, P.O. Box 360, Jefferson City, Missouri 65102.
  - Q. By whom are you employed and what is your position?
- A. I am a Regulatory Auditor with the Missouri Public Service Commission.
  - Q. Please describe your educational background and experience.
- A. I attended Southern Illinois University at Carbondale, Illinois, from which I received a Bachelor of Science degree in Business Administration, with a major in Accounting, in May of 1983. In May, 1984, I sat for and passed the Certified Public Accountants' examination. This means I am certified but not licensed until completing two years experience under a Certified Public Accountant. Also in May, 1984, I received a Master of Accountancy degree at Southern Illinois University at Carbondale, Illinois.
  - Q. What has been the nature of your duties with the Commission?
- A. I have, under the direction of the Chief Accountant, Utility Division, assisted with audits and examination of the books and records of public utilities in regard to proposed rate increases, along with other miscellaneous duties within the Accounting Department.
- Q. Have you previously filed prepared testimony in cases before the Commission?

- A. Yes, I have filed prepared testimony in Case No. WR-85-16, Missouri American Water Company, and Case No. GR-85-136, Great River Gas Company.
- Q. Have you made an investigation or examination of the Grand River Mutual Telephone Company's (Company) books in regard to Case No. TR-85-242?
- A. Yes, with the assistance of other members of the Missouri Public Service Commission Staff.
- Q. With reference to Case No. TR-85-242, which Accounting Schedules are you sponsoring?
  - A. I am sponsoring the following Accounting Schedules:

Accounting Schedule 4 Rate Base

Accounting Schedule 5 Cash Working Capital

Accounting Schedule 6 Plant-In-Service

Accounting Schedule 7 Plant Depreciation Reserve

- Q. Please describe Accounting Schedule 5.
- A. Accounting Schedule 5 is the calculation of the cash working capital requirement.
  - Q. What is cash working capital?
- A. Cash working capital is the amount of cash required to pay the day-to-day expenses incurred by the Company to provide service to the ratepayer.
- Q. How is the cash required to pay the day-to-day expenses supplied to a typical utility company with shareholders and ratepayers versus a cooperative such as Grand River Mutual Telephone?
- A. In the case of a typical utility, funds for operations are supplied by the shareholder and the ratepayer. When the Company spends

cash to pay for an expense before cash is provided by the ratepayer, then that cash is supplied by the shareholder. This cash represents a portion of the shareholder's total investment in the Company. Through the inclusion of cash working capital in the rate base, the shareholder receives a return on his investment. When the ratepayer pays for service he receives from the Company before the Company must spend cash to pay for the expenses incurred to provide that service, the ratepayer is supplying cash working capital. By subtracting this amount from rate base, the ratepayer is compensated for the cash working capital he provides.

- Q. How was the amount of cash working capital determined?
- A. By the completion of a lead lag study.
- Q. How does a lead lag study aid in the determination of cash working capital?
- A. A lead lag study measures the differences in the time frames between (1) the time services are rendered until the revenues for that service are received, and (2) the time that labor expense, materials expense and the other necessary supplies used in providing services are incurred and recorded until they are paid for.
- Q. Would you please explain Accounting Schedule 5, Cash Working Capital?
- A. The first column, Description, lists the expenses which the Company pays on a day-to-day basis. The second column, Revenue Lag, is the amount of time, expressed in days, between the provision of service by the Company and the payment for that service by the ratepayer. The third column, Expense Lag, is the amount of time, also expressed in days, between the time that labor expense, materials expense, and other services are incurred and recorded until these expenses are paid for by the

company. The fourth column, Working Capital Lag, is the result of the subtraction of column 3, Expense Lag, from column 2, the Revenue Lag. When the Working Capital Lag is positive, this indicates that the Company must pay for the expense before cash is provided by the ratepayer. When the Working Capital Lag is negative, it indicates that the ratepayer has provided the necessary cash before the Company must pay for the expense. The fifth column, Cash Working Capital Factor, is a result of dividing the Working Capital Lag, column 4, by 365.25, the number of days in a year. This quotient provides the cash working capital as a fraction of the total days in a year. The seventh column, Cash Working Capital Requirement, is a result of multiplying column 5, Cash Working Capital Factor, by column 6, Normalized Test Year Expense. This multiplication provides the amount of cash necessary to pay for the day-to-day expenses incurred by the Company to provide service to the ratepayer.

- Q. Is there anything unique about this company?
- A. Yes, this company is a telephone cooperative, a utility owned collectively by members who share in its benefits and who are the customers of the utility.
- Q. How will this structure affect the explanation of cash working capital?
  - A. Every customer is also an investor in the cooperative.
- Q. Why should it matter what the working capital amount is if the ratepayer and the investor are the same individual?
- A. If the cash working capital requirement is not considered in the determination of the gross revenue requirement, the possibility of excessive or inadequate rates is present. For example, if cash working capital were negative and not considered by the ratemaking process, rates

would be excessive. Excessive rates would be accumulated in the form of capital credits (a type of retained earnings). This accumulation may or may not be distributed to the ratepayers, depending on the decision of the board of directors. If, however, the cash working capital were positive and not considered by the ratemaking process, rates would be inadequate to cover all the Company's expenses with a reasonable rate of return. In this scenario, the Company would be paying for expenses before they received the money from the ratepayer. Therefore, it is still valid to determine the amount of cash working capital requirement needed even for a cooperative.

- Q. Please explain the revenue lag calculation as it appears on Accounting Schedule 5.
- A. The Revenue Lag is the amount of time between the provision of service by the Company and the receipt of payment for that service from the ratepayers. This is measured by three subcomponent lags: (1) the Usage Lag, which is the average period of time incurred from the beginning of the first day of a service period through the last day of that service period; (2) the Billing Lag, which is the time incurred between the end of the last day of a service period and the day the bill is mailed by the Company; and (3) the Collection Lag, which is the period of time incurred between the day the bill is mailed by the Company and the day the Company collects payment from the ratepayer for services rendered.
  - Q. Please explain how the revenue lag was calculated.
- A. The revenue lag used in this case was developed from two classes of revenue: local service and toll service. The revenue lag developed for each revenue class is weighted by the test year revenue to obtain an overall revenue lag.

The local service revenue lag was developed in the following manner:

Usage Lag - Customers are billed monthly in advance on a cycle basis. Therefore, the Usage Lag is 365.25 (average number of days in a year) divided by 12 (months) divided by 2 = 15.22 average usage lag. Since customers are billed in advance, this lag is a negative.

Collection Lag - The collection lag was calculated by taking a sample of customer bills from company records. Five percent of the customers were sampled in each of the ten exchanges in the phase 1 upgrade for the months of October 1984, January 1985, and June 1985. Thus, the sample consisted of approximately 140 bills for each month sampled, for a total sample size of 420 customers. The lag was found by taking the difference between the date mailed and the date payment was received. After weighing this lag by the dollar amount of the local service charge, a collection lag of 11.95 days resulted.

Billing Lag - There was no local billing lag, since the bills were always mailed at or before the start of the local service billing period.

The toll service revenue lag was developed in the following.
manner:

The usage and billing lag in this revenue category were combined. This procedure was done because it was easier to determine this combined lag than to try to determine when toll service was cut and when the billing lag began. Both these lags were calculated from the sample discussed earlier for local service revenue, i.e., Usage Lag, Collection Lag, and the Billing Lag, and were based on an analysis of each bill that had toll charges. The toll period was the average time from the day the

first toll call was placed to the day the last toll call was placed. The usage/billing lag was then the amount of time between the toll period and the day the bill was mailed to the ratepayer. The lag that resulted from this method was 34.06 days.

- Q. Is this methodology consistent with the way the local service revenue lag was developed?
  - A. Yes.
  - Q. Please continue.
- A. The collection lag for toll service revenue was developed from the same sample discussed in the local service collection lag. As a result of this analysis, the collection lag was determined to be 14.99 days. After adding the collection lag to the usage/billing lag, the toll service revenue lag was determined to be 49.05 days. The local and toll lags were then factored according to the revenue split during the test year. The revenue split used was for the 10 exchanges in phase 1. When the factored lags are added together, the composite lag of toll and local lags becomes 32.79 days. The factors were 31.08% for local and 68.92% for toll.
- Q. Why does the revenue lag of 14.04 days for the sales taxes and franchise taxes differ from the 32.79 days previously discussed?
- A. For sales tax and franchise tax collections, the Company acts solely as an agent. The Company is simply collecting cash from the ratepayer and paying the proper authorities on the date specified by the authorities.
- Q. Please explain the individual expense lags shown on the Cash Working Capital Schedule.

A. Line 1 - Gross Payroll: The Gross Payroll lag is the composite of calculations for base payroll, FICA Tax Withholding, Federal Income Tax Withholding and State Income Tax Withholding lags. Staff calculated the payment lag between the midpoint date of service rendered and the pay date. Payroll is paid on a weekly basis on Thursdays following the previous Sunday through Saturday i.e. the previous week. The lag thus calculated was 8 days.

The FICA and Federal Income Taxes Withheld are payable to the Federal Government three banking days after the ending pay period. This lag is added to the base payroll lag resulting in the FICA and Federal Income Tax Lag.

The State Income Taxes Withheld are paid on the 15th of the month for the preceding pay period. The result of this procedure was a lag of 29.65 days which, when added to the payroll lag, produced an overall lag of 40.0364 days. When these lags are factored by the Test Year Payroll dollar amount, a composite lag of 9.78 days results.

Line 2 - Pensions: The contributions for pensions are based on January wages and are for the oncoming calendar year. The contribution is made in four quarterly installments. The resulting lag is -57 days.

Line 3 - Operating Rents: These rents apply to the cost of renting pole space and office space. The various lags of the different types of rent are weighted by monthly and annual rental dollars to arrive at a composite lag of 167.3 days.

Line 4 - Cash Vouchers: All items which comprise operational and maintenance expenses which are not listed separately fall into the category known as "cash vouchers." All cash vouchers that had an impact of \$200 or more on the operation and maintenance accounts in the months of

July 1984, December 1984, March 1985, and May 1985 were reviewed in the sample. The total dollars of those vouchers which had not been considered in another lag amounted to \$338,658. These dollars were used to weight the various cash voucher lags to arrive at a total lag of 59.98 days.

Line 9 - Federal Unemployment Taxes: These taxes are paid quarterly at the end of the month following the quarter-year period. The lag associated with the payment of Federal Unemployment Taxes is 74.00 days.

Line 10 - State Unemployment Taxes: These taxes are paid quarterly at the end of the month following the quarter-year period and the same lag of 74.00 days is applicable.

Line 11 - FICA Employer's Portion: Payment for FICA taxes is made as a whole and includes both the employee and employer portions.

This will be identical to the FICA and Federal Income Taxes that was described earlier on page 8, 12.02 days.

Line 12 - Property Taxes: Property taxes are due on the last working day of the year. The lag is calculated by dividing 365.25 by 2 to equal 182.63 days.

Line 13 - Franchise Tax: The franchise tax is due on April 15.

Since the tax applies to the preceding year, the lag equals 182.62 days (½ the number of days in a year) plus 105 days (the number of days from January 1 to April 15). This sum equals 287.62 lag days.

Line 14 - Sales Tax: Sales taxes are paid on the 20th of the month, for the preceding month, except on each quarter-month of March, June, September and December. On the quarter-month payment is required on the last day of the following month. The dollar weighted effect of this lag was 37.91 days.

Line 15 - Excise Tax: Excise taxes are due on the 15th of the following month. The dollar weighted effect equals 30.21 days.

- Q. Please explain the interest expense offset included in Staff's rate base calculation.
- A. The interest expense offset to rate base is tied to the lead lag study. An expense lag for interest was developed and matched against the revenue lag. This was then divided by 365 days to obtain the factor used. This component is separated from the lead lag study due to the fact that the Staff's computer program will loop this component into the computation of the revenue requirement to arrive at more precise figures.
- Q. Please explain why the Staff believes interest expense should be an offset in the rate base calculation.
- A. The Staff's position is that interest expense is a cost of doing business just like any other expense upon which the ratepayers' rates are set. Therefore, since it is a cash expense, it is properly includable as an offset to cash working capital, thus an offset to rate base. This Commission has previously allowed the inclusion of interest expense as an offset to rate base in the following cases:

Empire District Electric Company - Case No. ER-79-19,
Missouri Public Service Company - Case No. ER-79-60,
Kansas City Power and Light Company - Case No. ER-80-48,
Southwestern Bell Company - Case No. TR-81-208, and
Union Electric Company - Case No. ER-82-52.

- Q. Please explain Schedule 4.
- A. Accounting Schedule 4 is the Staff's calculation of rate base. This schedule shows the Staff adjusted amounts. Total plant-in-service comes from Schedule 6, and the reserve for depreciation

comes from Schedule 7. Both Schedules will be explained later in my testimony. Cash working capital requirement comes from Schedule 5 and has previously been addressed in my testimony. The interest expense offset has also been explained in the Cash working capital testimony. Materials and supplies and prepayments represent a 13 month average of the account balances for the test year ending June 30, 1985. The customer deposit amount is the balance in that account at June 30, 1985.

- Q. Please explain Accounting Schedule 6 and 7.
- A. Accounting Schedule 6 is the Plant-in-service Schedule. This schedule also contains depreciation expense information. Accounting Schedule 7 is a related schedule of the Depreciation Reserve. Each Schedule gives the June 30, 1985, balances. An exception to this is the entry for station apparatus, Account 231.1. This account is for Customer Premises Equipment and is being written off over a sixty-month period pursuant to Commission Order TO-83-160. Staff used an amortization schedule to determine the balance for the reserve at 6-30-85. The plant balance is the amount frozen at December, 1982. The amortization used is for 12 months past the operation of law date in this case.
  - Q. Why was it necessary to make this calculation?
- A. Since the rates established in this case will be set for the year following the operation of law date and the plant balances for these accounts have known and measurable declining balances, Staff felt it was necessary to adjust the CPE amortization to the 12 months past the operation of law date.
  - Q. What Staff adjustments are you sponsoring?
- A. I am sponsoring Adjustments T-5.2, T-7.3, T-8.3, T-9.14, T-10.1 and T-11.5.

- Q. Please explain these adjustments.
- A. Adjustment T-5.2, T-7.3 and T-8.3 annualize increases in depreciation expense on vehicles, tools and other work equipment that are spread to the operation and maintenance expenses through clearing accounts.

Adjustment T-9.14 increases other operating expenses for interest on customer deposits. The increase is calculated by applying the interest rate paid on deposits to the balance of customer deposits at 6-30-85.

Adjustment T-10.1 annualizes increases in depreciation expense due to increases in plant during the test year. The depreciation expense is calculated on the plant balance as of June 30, 1985, with the exception of Account 231.1, Station Apparatus, and Account 232.12, Station Connections inside wiring. The treatment of Account 232.12, Station Connections is split between outside and inside wiring. Staff is amortizing the embedded investment for inside wiring over a 10-year period starting October 1, 1981, per Federal Communications Commission Docket 79-10.

Adjustment T-11.5 increases operating expenses for annualized property taxes on taxable plant excluding Telephone Plant Under Construction (TPUC) at the June 30, 1985 level. The property taxes associated with TPUC should be capitalized. Section 31.100:2(a) of the FCC Rules and Regulations states that the TPUC account "shall include the original cost of construction of telephone plant, ... taxes during construction, and all other elements of cost of such construction work." Section 31.2-22(a) states that "the cost of construction of property

chargeable to the telephone plant account shall include ... taxes ... and other analogous elements in connection with said work."

- Q. Did you review the company's calculation of Interest During Construction (I.D.C.)?
  - A. Yes, I did.
  - Q. Please explain any adjustment you made to their calculation.
- A. The company calculated the interest on the costs in the three journal entries that closed out the contracts for construction. Two of these entries included costs for the Blockton Iowa exchange. Thus, the company calculated interest on this cost for their I.D.C. adjustment. Staff has removed \$12,614 of this interest based on the percentage of plant Blockton represents versus the 10 exchanges in Phase I.
  - Q. Do you have any comments on the company's plant records?
- A. Yes. Upon using the depreciation reserve ledger it was apparent that Missouri reserves could not be identified from total company reserves. Although the Iowa activity was in the ledger, an ongoing balance of the Iowa reserve was not available. Therefore, the Iowa reserve balance could not be used to derive the Missouri reserve balance from total company figures. The Uniform System of Accounts in Appendix B states that "the continuing property record, as related to each primary plant account, shall be established and maintained by sub-accounts for each accounting area. In no case shall accounting areas cross state lines." Staff recommends that the company be required to maintain reserve ledgers which enable an auditor to readily identify Missouri reserve balances by primary account.
  - Q. Have you reviewed the company's Continuing Property Records?

A. Yes. The records appear adequate in most respects, however, the company uses average cost to make retirements. By using the average cost retirement, the cost of units of property are summed to arrive at a total cost. This total cost is divided by units to arrive at an average unit cost. When an item of property is retired the reduction to plant equals the average unit cost of the property. This may or may not equal the original cost of that item of property when it was placed in service.

In periods of rising prices, if old property is retired, it will be deducted from plant at an inflated cost. This would be due to additions of newer, more expensive plant driving up the unit cost. Thus, rate base would be understated and future depreciation expense would be understated. According to the Uniform System of Accounts Section 31.02-80(c) "The company shall keep such records of property and property retirements as will reflect the service life of property which has been retired, or will permit the determination of service, life indications by mortality, turnover, or other appropriate methods ..." It is Staff's opinion that the service life of property retired is not properly reflected by average cost retirements.

- Q. Do you have an example of a continuing Property Record.
- A. Yes, a copy of a buried cable continuing property record appears in Appendix 1 of my testimony.
- Q. Do you have any recommendations to the Commission for Grand River Mutual Telephone?
- A. Yes, the company should be required to maintain property records in accordance with the Uniform System of Accounts prescribed by this Commission.

- Q. Have you discussed this recommendation with other Staff members?
- A. Yes, Melvin Love, Supervisor of Depreciation has agreed with the reasonableness of the request considering the size of the company.

Specifically, property records shall be maintained which show the year installed as well as year retired of the various property units. Further, I recommend the Company be required to keep their record in such a way as to enable retirements to be made by vintage.

- Q. Does this conclude your Direct Prepared Testimony?
- A. Yes.

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		LIST	ING OF MATERIA	L ACTIVITY F	AE THERRUS BLE	LANCES		LVAF
		ACCOUNT 242.3	BURIED CABL	.ε		2-000 DAVIS CI	TY IA	
	PLANT CODE	PLANT LODE DESCRIPTION	YTITMAUE	AMOUNT	LABOR/OHEAD	TOTAL AMOUNT	UNIT AVERAGE COST	
		sJ 1x19	2200	369.60	0.00	359.50	0.15330	
	702	3J 2x17	2404	599.54	0.00	599.54	0.24939	
		3J 3K17	512	160.19	0.00	160.19	0.31297	
		BJ 12X19	5705	3226.54	0.00	3225-64		
		3J 2X22	12376	5778.46	0.00		0.56558	
			123.0	3778.45	0.00	5770.40	0.44373	
	712		19119	0194.50	0.00	6194.56	0.52499	
		SJ ox22	23302	9987.17	0.00	99:7.17	0.42550	
		3J 12x22	53018	45517.22	0.00	46519.22	0.75005	
		BJ 18X22	1174	1102.92	0.00	1102.92	0.93945	
	716 :	∍J 25x2Z	27062	25057.01	0.00	25087.61	0.98517	
	713 :	35 XX2	32344	39057.15	0.00	39037.13	* 2004	
		J100X22	2552	7535.84	0.00		1.20945	
		3J 2X24	2115	615.76		7535.34	2.63307	
		3J 3X24			0.30	515.75	0.29100	
		EJ 6X24	18314	5456.05	0.00	5456.00	0.29000	
	723	5 5 5 2 4	173310	90950.23	0.00	30860.23	0.45556	
		3J 12X24	91518	67511.48	0.00	57511.45	0.73769	
		3J 18x24	53344	47905.74	0.00	47900.74	0.70096	
	731 :	dJ 25X24	73590	61834.00	0.00	5133+.00	0.34025	
	732	∃J 50x24	52718	70934.55	0.00	70934.38	1.34555	
	733	sj 75x24	11303	16059.45	0.00	15059.45	1.42018	
	734	5J130X24	4374	11220.47	0.00	11210 / 2	2.54527	
		3J150x24	24250	58567.70		11220.47	2.56527	
		3J200X24	10744	39455.00	0.00	63367.75	2. 33874	
		5J 30UX 24	2373		0.00	37465.00	3.07321	
		3J40JX24		12737.30	0.00	12737.30	5.35552	
			314	2345.71	0.00	2345.71	7.47041	
101	TALS FOR UJ2-	AI YTID SIVAG OGG		633064.27	0.00	633054.27		
TOTALS	FOR EXCHANGE	E 002		033064.27	0.00	6330027		

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# BEFORE THE PUBLIC SERVICE COMMISSION

## OF THE STATE OF MISSOURI

In the matter of Grand River Mutual Telephone Corporation for authority to ) make permanent its existing interim rates for telephone service provided in) exchanges upgraded in Phase I of its ) upgrade program.  CASE NO. TR-85-242
AFFIDAVIT OF RACHELLE L. THOMPSON
STATE OF MISSOURI ) COUNTY OF COLE )
Rachelle L. Thompson, of lawful age, on her oath states: That she has participated in the preparation of the attached written testimony and appendices attached thereto in question and answer form, consisting of pages of testimony to be presented in the above case, that the answers in the attached written testimony were given by her; that she has knowledge of the matters set forth in such answers; and that such matters are true to the best of her knowledge and belief.
Rachelle L. Thompson
Subscribed and sworn to before me this Andday of November, 1985.
Quedea Fritsch
JUDY PARTICIARY Public  NOTART PUBLIC STATE OF MISSOURI  COLE CO.
MY COMMISSION EMP. JULY 31,1989  188UEO THRU HISSOURI HOTARY ASSOC.  My Commission expires