COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

AN ADJUSTMENT OF RATES OF THE SOUTH SHORE WATER WORKS COMPANY) CASE NO. 9563

O R D E R

IT IS ORDERED that:

1. The Staff Audit Report for South Shore Water Works Company ("South Shore") attached hereto as Appendix A shall be included as a part of the record in this proceeding.

2. South Shore shall have until the close of business September 10, 1986, to file written comments concerning the contents of Appendix A.

Done at Frankfort, Kentucky, this 29th day of August, 1986.

PUBLIC SERVICE COMMISSION

For the Commission

ATTEST:

Executive Director

COMMONWEALTH OF KENTUCKY

PUBLIC SERVICE COMMISSION

REPORT ON

SOUTH SHORE WATER WORKS

Prepared By:
Jeffrey S. Shaw

Staff Audit Report on South Shore Water Works, Inc.

PREFACE

On April 11, 1986, South Shore Water Works, Inc. ("South Shore") filed its application in Case No. 9563 seeking to increase the rates it charges for water service. The proposed rates were designed to generate additional revenues of $84,709 on an annual basis, which represents an increase of approximately 43 percent above the revenues generated by South Shore's existing rates.

In order to shorten and simplify the processing of this case the Commission chose to perform a limited financial audit of South Shore's operations for the test year, calendar year 1985. The Commission's objective was to reduce the need for written data requests, decrease the time necessary to examine the application, and therefore, decrease South Shore's expense related to this application. Mr. Jeff Shaw of the Commission's Division of Rates and Tariffs performed the audit on July 15 and 16, 1986, at the office of South Shore in South Shore, Kentucky.

SCOPE

The scope of the audit was limited to obtaining information to determine whether the operating expenses as reported in the test year were representative of normal operating conditions and to gather information to evaluate the pro forma adjustments proposed in South Shore's filing. Supporting documentation for expenditures charged to test year operations was reviewed, including invoices and payroll records. Insignificant or immaterial discrepancies were not pursued and are not addressed herein.

FINDINGS

<u>Utility Plant in Service</u>

In its application South Shore proposed several adjustments to increase its Utility Plant in Service by a total of $209,277 to correct for improper accounting practices used in prior years. South Shore maintains that for several years, up to and through 1984, various costs for materials and labor which should have been capitalized were improperly recorded as operating expenses. Such accounting practices were directed by the company's primary shareholder as a means of minimizing income reported for tax purposes. In preparing its 1985 financial statements South Shore attempted to correct this situation by making adjustments to increase Utility Plant in Service, the Accumulated Provision for Depreciation and Unappropriated Retained Earnings. Subsequent to the dates of the audit South Shore submitted a supplemental petition in which the proposed adjustment to Utility Plant in Service was increased by $12,086 to $221,363.

During the audit the staff reviewed the invoices and payroll records for the years 1971 through 1984 which South Shore had used to reconstruct the levels of capitalization and expense reported during those years. The representatives of South Shore indicated that while the improper expensing occurred prior to 1971 they felt adjustments based on the past 14 years would be adequate for purposes of this rate case. Based on the review of those records and the evidence of record from South Shore's last rate case, Case

No. 9330, the staff recommends that the Commission not accept the adjustments proposed by South Shore without further support. There are several issues and questions to be answered related to these adjustments which include the following:

1. Can a partial adjustment which does not reflect events that occurred prior to 1971 be considered acceptable?

2. Historically, South Shore has recorded depreciation expense only on non-contributed property. By how much has South Shore's depreciation reserve been understated over the years because of this and how greatly would this affect the proposed rate base?

3. Based on the review of South Shore's payroll records, and discussions with South Shore personnel, the staff learned that none of South Shore's female employees for the years 1971-1984 were involved in any outside labor that would be included in the labor capitalization adjustment proposed in this case, meaning that all labor charges for female employees were related to clerical and administrative work and were properly charged to expense. Given these circumstances, the proposed labor capitalization adjustments for some of the years from 1971-1984 result in extremely small amounts of labor charges remaining in the expense accounts for outside or physical labor. For example, combining two years, 1973 and 1974, South Shore's total labor charges were $108,000. After subtracting the labor charges for female employees and the proposed labor capitalization adjustments, a total of $9,493 is left. If the proposed labor capitalization adjustments are accurate this would mean that out

of $108,000 in labor charges over a two-year period only $9,493 was charged for meter reading, maintenance and operation of the treatment plant. Could such a small amount of labor expense (and such a small number of work-hours) have been adequate to maintain and operate the water system? If not, can the Commission rely on the accuracy of the proposed labor capitalization adjustments? Without further support, the staff would recommend against such reliance.

While the staff recommends against accepting the accounting adjustments proposed by South Shore for the above reasons, it also recommends against allowing these adjustments to be reflected in the determination of South Shore's rates on the grounds that such recognition would constitute retroactive rate-making. During the years 1971 through 1984 in which the overstated expense levels were recorded, South Shore was reimbursed for these expenses through the rates charged its customers. Although South Shore overstated its expenses for the purpose of reducing its tax liability, it never reported a net loss for any calendar year during this 14-year period. In fact, in addition to recovering its overstated expenses, South Shore's cumulative net earnings (as reported in its Annual Reports to the Commission) were $313,633 for this period of time, ranging from a low of $4,055 in 1983 to a high of $39,303 in 1980. These earnings levels resulted in rates of return on rate base ranging from a low of 2.09 percent in 1983 to a high of 30.88 in 1977, with an overall rate of return of 14.42 percent for the 14-year period.

The customers of South Shore, through their payments based on the rates in effect during the period from 1971-1984, have paid for the costs incurred by South Shore and charged to expense during that time period. To require the customers to pay again would be unfair and unreasonable and would constitute retroactive rate-making. For these reasons, the staff recommends against rate-making recognition of the accounting adjustments addressed herein.

Sales Revenues

In the course of its review of South Shore's application, the staff discovered an error in the billing analysis. The error resulted in an understated level of gallons sold and a corresponding understated level of revenues in the computation of South Shore's normalized revenues. The understatement of 243,000 gallons in South Shore's first rate block, which is billed at $2.60 per 1,000 gallons, results in normalized revenues being understated by $632. Therefore, the staff recommends that South Shore's normalized sales revenues of $196,211 be increased by $632 to $196,843.

Operation and Maintenance Expenses

In the course of the audit, the staff examined invoices related to the test period level of operation and maintenance expenses and various pro forma adjustments proposed by South Shore. The staff found no material discrepancies in the level of test period expenses and observed adequate documentation for the majority of South Shore's proposed adjustments. For those expenses and adjustments questioned by the staff, the following recommendations are made. For any items not addressed specifically herein, the staff recommends acceptance of South Shore's adjustments.

South Shore proposed an adjustment to increase its Chemicals Expense by $2,844, from $8,316 to $11,160, in order to reflect the full 12-months' expense for the test year. South Shore, which is billed by its chemicals supplier on a quarterly basis, had deferred payment of its bill for the fourth quarter of 1985 until February, 1986, due to its cash flow problems. South Shore recorded the expense at the time of payment; therefore, the test year operation and maintenance expenses reflected only 9-months' Chemicals Expense.

The staff reviewed South Shore's cut-off of expenses and payments for the calendar year 1984 and confirmed that only 9-months' expense was reported in the test year. In addition the staff reviewed the test year invoices and the invoices for the first 6-months of 1986 to determine whether any further adjustments might be in order. South Shore had received an increase in the cost of liquid chlorine from its primary chemicals supplier and had changed to a different, more expensive phosphate-iron sequestering agent in an attempt to alleviate its problems with discolored water. Per a notice dated July 10, 1986, from the Kentucky Department for Environmental Protection this change in chemicals appears to have been effective. In order to provide for recovery of these increased expenses, the staff recommends an additional adjustment of $1,636 to increase South Shore's pro forma Chemicals Expense to $12,796.

South Shore proposed an adjustment of $1,661 to reduce Depreciation Expense to reflect the straight-line method of recording depreciation. South Shore had first become aware that this was the only methodology acceptable to the Commission in its last rate case, Case No. 9330. This adjustment recognizes South Shore's proposed adjustments to Utility Plant in Service. Consistent with its earlier recommendation, the staff recommends an alternative adjustment to reduce Depreciation Expense by $6,131. This recommendation reflects the straight-line calculation without recognizing for rate-making purposes the accounting adjustments to increase South Shore's Utility Plant in Service.

South Shore had proposed adjustments increasing its expense for property taxes by $1,025 due to the projected increase in its property assessment resulting from the proposed capitalization adjustments. In line with the recommendation to disallow South Shore's capitalization adjustments, the staff recommends that the related adjustments to property tax expense also be disallowed.

South Shore proposed an adjustment of $3,000 to reflect a 3-year amortization of its estimated rate case expense of $9,000. South Shore indicated this estimate was based on the level of expense incurred for Case No. 9330. In that case the Commission allowed a total expense of $9,393 to be amortized over 3 years. However, that amount reflected a change of legal counsel during the pendency of the case and the expense of a petition for rehearing of that case. In its Order on Rehearing in Case No.

9330, the Commission advised South Shore that it would closely review rate case expense in future cases.

The staff viewed the invoices South Shore had received from its accountant and legal counsel as of the audit date for the case at hand. These invoices, which primarily relate to services provided for the preparation and filing of the application, totaled $4,413. Considering that an informal conference was held prior to the audit involving Commission staff members together with South Shore's president, accountant and attorney and considering the possibility that a hearing may be required in this case, the staff believes the estimate of $9,000 to be reasonable in this instance. The staff, from an operating standpoint, would recommend that South Shore require its accountant to submit an itemized billing statement in a format similar to that used by its legal counsel.

The amortization of $9,000 over 3 years results in an annual expense of $3,000, to go along with the expense of $3,131 allowed in the prior case, for a total annual rate case expense of $6,131 for rate-making purposes. Per the staff's review of South Shore's test year operating expenses it was determined that, for accounting purposes, $4,464 in rate case expense was recorded during the test period. Total expense during the test period for Outside Services Employed was $6,864. Of the accountant's non-itemized billings, $2,400 ($200 per month) was for routine bookkeeping and accounting services. The remaining expense for Outside Services Employed, $4,464, was rate case expense for Case No. 9330. Since that amount of expense is already reflected in the test year operation and maintenance expenses, the adjustment required to bring that up to $6,131 is only $1,667, not $3,000 as proposed by South Shore. Therefore, the staff recommends an adjustment of $1,667 to reflect the additional rate case expense for rate-making purposes.

SUMMARY

Based on the staff's recommendations proposed in this report South Shore's adjusted operating statement would appear as follows:

	South Shore Pro Forma	Staff Adjustments	Staff Pro Forma
Operating Revenues			
Water Sales	$196,212	$ 631	$196,843
Fire Protection	924		924
Other Revenues	5,067		5,067
Total	$202,203	$ 631	$202,834
Operating Expenses			
Source of Supply	$ 6,764	$	$ 6,764
Pumping Expense	35,304		35,304
Treatment Expense	23,079	1,636	24,715
Transmission and Distribution Expense	28,651		28,651
Customer Accounts	21,314		21,314
Administrative and General Expenses	44,936	<1,333>	43,603
Depreciation Expense	20,851	<4,470>	16,381
Taxes	11,842	<1,025>	10,817
Total	$192,741	$ <5,192>	$187,549
Operating Income	9,462	5,823	15,285
Other Income	8,660		8,660
Interest Expense			
Interest on Long-Term Debt	30,000		30,000
Other Interest Expense	488		488
Net Income	$<12,366>	$ 5,823	$ <6,543>

REVENUE REQUIREMENTS

South Shore requested a return on rate base of 15.5 percent; however, this return has no basis in relation to South Shore's capital structure or its cost rates for debt and equity. For a small utility such as South Shore it is difficult to determine an appropriate rate of return on equity for rate-making purposes. In the case of South Shore, based on the staff's recommendation that the adjustments related to the improper accounting of various expenditures from 1971 to 1984 not be recognized for rate-making purposes, the equity balance is nearly eliminated. Even if a hypothetical capital structure reflecting 60 percent debt and 40 percent equity were used to determine revenue requirements, with South Shore's 12 percent cost of debt it would require a cost of equity over 20 percent to arrive at a rate of return of 15.5 percent; it would require a cost of equity above 15 percent to give the 13.25 percent rate of return granted in South Shore's most recent case. Such an approach would result in an increase of $36,789.[1]

Another approach frequently used by the Commission to determine revenue requirements for small, privately-owned

---

1

$351,556	Rate Base
X 13.25%	Rate of Return
$ 46,581	Required Operating Income
- 15,285	Adjusted Operating Income
$ 31,296	Required Increase to Operating Income
- 6,543	Adjusted Net Loss
$ 24,753	Required Increase Subject to Income Tax
X 1.222	Tax Multiplier
$ 30,246	Required Taxable Increase Including Income Tax
+ 6,543	Required Increase Not Subject to Tax
$ 36,789	Total Required Increase

utilities is the calculation of an operating ratio. This approach is used primarily when there is no basis for a rate-of-return determination due to the reasons cited above or due to the fact that the cost of the utility plant has fully, or largely, been recovered through the receipt of contributions, either in the form of grants or donated property. The ratio generally used by the Commission in order to provide for debt service and equity growth is .88. For South Shore this approach would result in an increase of $37,199.[2]

Finally, a third approach used by the Commission for the determination of revenue requirements involves a debt service coverage ("DSC") calculation. This approach, used primarily for non-profit water utilities, involves a coverage calculation for total debt service, both principal and interest. The typical calculation reflects a coverage of 1.2X the utility's average annual debt service requirement. Due to South Shore's unfavorable financial condition and its large debt service requirement, the staff believes this to be a fair and reasonable approach for

2

$187,549	Adjusted Operating Expenses
÷ .88	Operating Ratio
$213,124	Required Operating Revenue Before Interest and Taxes
+ 30,488	Interest Expense
$243,124	Required Revenues Before Taxes
-218,037	Total Expenses - Including Interest
$ 25,087	Required margin Subject to Income Tax
X 1.222	Tax Multiplier
$ 30,656	Required Taxable Increase Including Income Tax
+ 6,543	Required Increase Not Subject to Tax
$ 37,199	Total Required Increase

determining revenue requirements. The resulting increase would be $54,827.[3]

In the ten years prior to the test year, South Shore increased its utility plant, on average, by $24,400 per year. In order to continue to make these levels of additions and replacements in the future without incurring additional debt, South Shore requires an increase in revenues sufficient to produce a positive cash flow of $20,000 to $30,000 per year. An increase in revenues based on a 1.2X DSC will produce such a cash flow, as shown below:

	Rate of Return	Operating Ratio	Debt Service Coverage
Adjusted Operating Income	$15,285	$15,285	$15,285
Plus: Increase (Less Taxes)	31,296	31,630	46,055
Operating Income (with increase)	$46,581	$46,915	$61,340
Plus: Other Income	8,660	8,660	8,660
Depreciation	16,381	16,381	16,381
Less: Interest Expense	30,488	30,488	30,488
Principal Payments	28,333	28,333	28,333
Net Cash	$12,801	$13,135	$27,560

3

$58,333	Annual Debt Service
X 1.2	Debt Service Coverage Ratio
$70,000	Required Income Available for Debt Service
-23,945	Adjusted Income Available for Debt Service (Operating Income and Other Income)
$46,055	Required Increase to Operating Income
- 6,543	Adjusted Net Loss
$39,512	Required Increase Subject to Income Tax
X 1.222	Tax Multiplier
$48,284	Required Taxable Income Including Income Tax
+ 6,543	Required Increase Not Subject to Tax
$54,827	Total Required Increase

The staff is of the opinion that a DSC of 1.2X would provide sufficient revenues to allow South Shore to meet its operating expenses, service its debt and provide for reasonable equity growth. Therefore, the staff recommends that South Shore be allowed to increase its revenues by $54,827 on an annual basis in order to have the opportunity to achieve a DSC of 1.2X.

Respectfully submitted,

Jeffrey S. Shaw

Jeffrey S. Shaw
Public Utilities Financial Analyst