COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

NOTICE OF ADJUSTMENT OF THE RATES OF KENTUCKY-AMERICAN WATER COMPANY EFFECTIVE ON AND AFTER FEBRUARY 7, 1986	))))	CASE NO. 9482

O R D E R

On January 17, 1986, Kentucky-American Water Company ("Kentucky-American") filed its notice with the Commission seeking to increase its rates and charges effective February 7, 1986, to produce an annual increase in revenue of $2,519,809, an increase of approximately 16 percent. By letter dated May 6, 1986, Kentucky-American amended its application to reflect the removal from its rate base of a portion of its Kentucky River Station that had been disallowed in Case No. 9283.[1] At the hearing Kentucky-American again revised its filing to account for the actual costs associated with committed construction in this proceeding. As a result of these changes Kentucky-American reduced its requested annual increase in revenue to $2,408,336.[2]

In order to determine the reasonableness of the request, the Commission suspended the proposed rates and charges for 5 months after the proposed effective date and scheduled a public hearing

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1 Notice of Adjustment of the Rates of Kentucky-American Water Company.

2 Transcript of Evidence ("T.E."), May 14, 1986, page 6.

for May 14, 1986. On its own initiative, Kentucky-American held a public meeting on April 10, 1986, at its offices in Lexington, Kentucky, to receive public comments on its requested rate increase as it has in the past several cases. The Commission again commends Kentucky-American for holding this meeting to explain its requested rate increase to its customers.

A hearing was held on May 14, 1986, in the Commission's offices in Frankfort, Kentucky, following notice given pursuant to the Commission's regulations. The Consumer Protection Division of the Attorney General's Office ("AG") and the Lexington-Fayette Urban County Government ("Urban County") intervened in this matter and participated in the hearings.

Witnesses for Kentucky-American prefiling testimony and appearing at the hearing were Edward W. Limbach, President of Kentucky-American; Robert A. Edens, Vice President and General Manager of Kentucky-American; Roy L. Ferrell, Assistant Treasurer of Kentucky-American; D. Wayne Trimble, Assistant Director of Rates and Revenues, American Water Works Service Company; and Dr. Charles F. Phillips, Jr., Robert G. Brown Professor of Economics at Washington and Lee University. Appearing on behalf of the AG was Dr. Ben Johnson of Ben Johnson and Associates. The Urban County called no witnessess. Simultaneous briefs were filed on June 4, 1986, and all requested information has been submitted.

This Order addresses the Commission's findings and determinations on issues presented and disclosed in the hearing and investigation of Kentucky-American's revenue requirements. The

Commission has granted rates and charges to produce an annual increase of $1,511,637 herein.

ANALYSIS AND DETERMINATION

Test Period

Kentucky-American proposed and the Commission has accepted the 12-month period ending October 31, 1985, as the test period in this proceeding.

Committed Construction

Kentucky-American included in its proposed rate base an estimate of $560,663 for construction that would take place subsequent to the test period. At the hearing Kentucky-American revised the committed construction figure downward by $32,000 to reflect the actual cost of the construction.[3] Of the $560,663 estimate, $301,795 was attributable to the Midway and Versailles projects on which construction began but was not completed at the end of the test period. The remaining costs were associated with four smaller projects: Mt. Horeb Road, Carrick Road, Stone Road and Bassett Avenue. Construction on the Stone Road and Bassett Avenue projects commenced subsequent to the test period. All projects were to have been completed by May 15, 1986.[4]

The Commission, in Kentucky-American's last rate case, Case No. 9283, disallowed adjustments of post test period plant additions as it generally does in all cases. In this case, Kentucky-American sought to identify particular revenues and expenses

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3 Ibid., page 126

4 Ibid., pages 67-68

associated with the post test period projects it proposed to include in the rate base. In its brief, Kentucky-American, in four of the projects found no "revenue" effect associated with the post test period additions since no customers were being added. Kentucky-American presented this fact as an argument to include the investment but to leave earnings at the test period level. Naturally a street extension, a booster station, new office furniture or even a transmission line will likely not carry with them customers. The argument in the brief confuses the issues involved in the allowance or disallowance of post test period plant additions. By itself, no asset, and frequently, no project produces revenue. These assets combine to become the overall base of assets that in total produce revenue. Revenue, as described in the brief, is not the issue the Commission must deal with in determining the appropriate level of investment and the appropriate level of earnings to determine revenue requirements. The brief, while sounding logical, has not addressed the key issue. The issue is the distortion in earnings to investment produced by isolated out of period adjustments for ongoing construction projects.

A company's balance sheet reflects the investment and capitalization at a specific point in time. To extend the balance sheet beyond that point would require changes to all revenues, expenses, assets, capital and liabilities to properly evaluate earnings on investment. The Commission realizes that it is difficult, if not impossible, to quantify the impact of isolated projects upon earnings. Kentucky-American, or any other growing firm, is in an almost continuous stage of changing, upgrading and expanding its facilities. In a growing firm these changes are in the normal course of business and in the aggregate, if management is responsive, these ongoing asset changes mixed with other changing factors should be expected to increase productivity especially in a period of very low inflation and should thereby result in some overall gain. The degree of these changes depends on a myriad of factors: current capital costs, inflation, rainfall (for a water utility), customer growth, and management efficiency. Therefore it is inappropriate to reflect the impact of an isolated new investment without full reflection of total operations for the period.

Occasionally, a growing firm may complete a project post-test period where the impact on the firm's overall operations can more readily be identified and an exception may be made. In this proceeding the Commission considers the Midway and Versailles projects examples of such exceptions. Kentucky-American agreed to service the City of Midway, Kentucky, after the severe drought of the summer of 1983. During the drought Midway experienced water shortages and some residents were without water for an extended period. In order to alleviate this problem Kentucky-American agreed to extend its services to Midway. The Commission agreed that the need existed and issued a certificate in Case No. 9359.[5]

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5 Application of Kentucky-American Water Company for a Certificate of Public Convenience and Necessity Authorizing the Construction of an 8" Distribution Main and Related Facilities to Serve Midway, Kentucky.

The City of Versailles experienced some of the same problems in 1983 although not as severe as Midway's. Again Kentucky-American agreed to extend its services by providing a stand-by supply of water for Versailles in Case No. 9360.[6]

Although the Commission feels that it is generally inappropriate to make adjustments for post test period capital additions the Commission concludes that due to the circumstances surrounding the necessity for the Midway and Versailles projects and the fact that Kentucky-American has made a reasonable attempt to show the impact of these projects on its overall operations it would be unfair to not allow Kentucky-American to earn the incremental return on this investment. It is, therefore, the Commission's conclusion that the committed construction costs associated with Midway and Versailles should be allowed in Kentucky-American's rate base. The adjustments for the Mt. Horeb Road, Carrick Road, Stone Road and Bassett Avenue projects are merely ongoing changes post test period and should be denied.

Valuation Methods

Net Investment

Kentucky-American proposed a net investment rate base at October 31, 1985, of $49,760,605 including estimated committed construction beyond the end of the test period.[7] Amendments to

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6 Application of Kentucky-American Water Company for a Certificate of Public Convenience and Necessity Authorizing the Construction of 9,800 Feet of 16 Inch Water Main and 5,200 Feet of 16 Inch Water Main to Serve the City of Versailles, Kentucky.

7 Exhibit 3, Schedule 1.

the original application reflecting the actual cost of the committed construction and Kentucky-American's proposal to remove the costs of the Kentucky River Station reduced the proposed rate base to $49,299,706.[8] The Commission has accepted the proposed rate base with the following exceptions:

The major exception that the Commission takes to the rate base as proposed is the inclusion of $258,868[9] of committed construction. The Commission has disallowed the committed construction and concurrent adjustments of $3,207 and $4,397 have been made to the proposed rate base to reflect related changes to the depreciation reserve and deferred federal and state taxes, respectively. In addition the Commission has made adjustments to utility plant in service and accumulated reserve for depreciation to reflect the removal of the costs associated with the Kentucky River Station in the amount of $451,519 and $22,620, respectively.

Kentucky-American proposed a cash working capital allowance of $1,383,500.[10] The AG contends that Kentucky-American's total working capital allowance is overstated by $402,000.[11] In arriving at this determination the AG has used the investor

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8 Although Kentucky-American proposed to reduce the rate base it filed no amended exhibits and, therefore, the Commission has made appropriate adjustments to the original proposed rate base of $49,760,605.

9 The original figure is used throughout this Order due to the fact that Kentucky-American filed no amended exhibits.

10 Exhibit 3, Schedule 2.

11 Brief of the AG, page 14.

supplied capital approach proposed by Dr. Johnson instead of Kentucky-American's formula approach.

The Commission, in Case No. 8314,[12] authorized Kentucky-American to use 60 days or 1/6 of adjusted operation and maintenance expenses to determine its cash working capital allowance as opposed to 45 days or 1/8 used in previous cases. At that time the Commission felt that this methodology was generally appropriate because total net investment closely approximated investor supplied capital.[13] The Commission is of the opinion that this method is still appropriate and accepts it for this proceeding. However, in the past several years Kentucky-American's capital has fluctuated in comparison to its rate base and has, in some instances, substantially exceeded rate base. The Commission, therefore, advises Kentucky-American that it should present a new lead-lag study or explore alternative methods of computing the working capital allowance in its next rate proceeding.

The Commission has, in this proceeding, reduced Kentucky-American's proposed cash working capital allowance by $20,634 to reflect Commission adjustments to proposed operation and maintenance expenses.

The Commission has determined Kentucky-American's net investment rate base at October 31, 1985, to be as follows:

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12 Notice of Adjustment of Rates of Kentucky-American Water Company.

13 Case No. 8314, Order entered February 8, 1982, page 6.

Utility Plant in Service	$70,509,338
Construction Work in Progress	1,487,121
Prepayments	100,456
Materials and Supplies	281,175
Deferred Tank Painting	340,896
Cash Working Capital	1,362,866
Committed Construction	301,795
Subtotal	$74,383,647
Less:	
Reserve for Depreciation and Amortization	$10,380,615
Customer Advances for Construction	2,902,463
Contributions in Aid of Construction	4,545,756
Deferred Federal and State Taxes	5,719,061
Unamortized Investment Tax Credit	258,999
Depreciation on Committed Construction	5,009
Net Original Cost Rate Base	50,571,744
Less:	
Plant Acquisition Adjustment	1,511,936
Net Investment Rate Base	$49,059,808

Capital

Kentucky-American is a wholly-owned subsidiary of American Water Works Company, Inc. ("American Water Works"). Kentucky-American proposed to reduce the stated levels of its long-term debt and preferred stock by the balance of unamortized debt expenses, sinking fund provisions, a maturing debt issue of $1,700,000 and property held for future use. These adjustments to Kentucky-American's end-of-period capital resulted in capitalization of $46,901,988.[14] Adding end-of-period Job Development Investment Tax Credits ("JDIC") of $2,542,392 results in an adjusted capitalization of $49,444,380. Consistent with the Commission's Order in Case No. 8836,[15] reinstatement of the unamortized expenses of $224,603 associated with Kentucky-American's long-term debt and preferred stock resulted in a capitalization of $49,668,983.

The Commission, concurrent with the adjustments made to the rate base for committed construction and the Kentucky River Station, has reduced Kentucky-American's capitalization by $258,868 and $451,519, resulting in an adjusted capitalization of $48,958,596. The Commission finds this to be the reasonable level of capitalization for Kentucky-American at the end of the test period. In further calculations, the Commission assigns the overall cost of capital to JDIC as required by Section 46 of the Internal Revenue Code.

Revenues and Expenses

Kentucky-American had net operating income of $4,562,973[16] for the test period. In order to normalize current operating conditions Kentucky-American proposed several adjustments to its test period revenues and expenses which resulted in an adjusted

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14 Exhibit No. 5, Schedule 1.

15 Notice of Adjustment of the Rates of Kentucky-American Water Company.

16 Exhibit 4, Schedule 1

net operating income of $4,486,820.[17] The Commission is of the opinion that the proposed adjustments are generally proper and acceptable for rate-making purposes with the following exceptions:

Operating Revenues

During the hearing Kentucky-American, at the AG's request, proposed to reduce its pro forma operating revenues by $143,553 by removing the annualization adjustments to its test period revenues.[18] The AG made the request because it felt that Kentucky-American had inappropriately made adjustments to annualize revenues without the corresponding adjustment to the bill analysis to annualize consumption. After further examination the Commission has determined that the appropriate adjustments were made by Kentucky-American and removal of the annualization adjustments is not necessary.

Salaries and Wages

Kentucky-American proposed to increase salaries and wages by $214,481, to reflect increases of 4 percent to union personnel effective prior to the end of the test year, to reflect increases of 5 percent to non-union personnel and the inclusion of three additional employees. The Commission has accepted the proposed adjustment with the exception of the additional employees.

Kentucky-American proposed to hire a Maintenance Service Specialist at an annual salary of $30,000 and two part-time customer service specialists at a combined annual salary of

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17 Ibid.

18 T.E., pages 103-107.

$15,725. Mr. Edens testified at the hearing that only one of the proposed additional employees had been hired at the date of the hearing.[19]

It is the Commission's opinion that since the hiring dates of the new employees will take place well beyond the test period the proposal to include the costs associated with these employees should be rejected. The Commission concludes that these employees represent newly created positions rather than replacements in existing positions. The Commission is concerned that Kentucky-American has chosen to include only the salary expense of these new employees in its pro forma operations and not the impact that the employees will have on earnings over the period the rates are in effect, whether represented by actual revenue contributions or increased productivity gains to Kentucky-American's overall operations. This reduces Kentucky-American's operating expenses by $45,725. Furthermore, the Commission has reduced associated payroll taxes by $3,769. These adjustments result in an increase to net operating income of $24,788.

Depreciation Expense

Kentucky-American reported test-year depreciation expense of $945,192.[20] Adjustments to this figure resulted in a proposed level of depreciation expense of $1,215,568. Included in this amount is depreciation expense on $258,868 of committed construction and $451,519 of costs related to the Kentucky River

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19 T.E., pages 58-59.

20 Exhibit 4, Schedule 1.

Station. As discussed in other sections of this Order a portion of the costs for committed construction and the cost attributed to the Kentucky River Station have been removed from Kentucky-American's proposed rate base, and accordingly, the Commission has reduced Kentucky-American's depreciation expense by $3,207 to reflect depreciation on committed construction and $9,030[21] to reflect depreciation on excess plant capacity related to the Kentucky River Station. In addition, the Commission has increased depreciation expense by $462 to reflect capitalized engineering fees discussed in a later section of this Order. These adjustments result in an increase to net operating income of $5,898.

Property Taxes

Kentucky-American proposed to include in its property tax base both the committed construction and the $451,519 costs associated with the Kentucky River Station. Accordingly, the Commission has decreased Kentucky-American's operating expenses by $6,061 with adjustments to property taxes attributable to these two items of plant. This adjustment results in an increase to net operating income of $3,036.

Maintenance Expenses

Kentucky-American reported test period maintenance expense of $23,981 for repair of the traveling screens at the Kentucky River Station and $16,310 for repair of a floculator. It is the

21 $451,519 x 2% = $9,030 (2% is the rate applicable to treatment plant).

Commission's judgment that these expenses are of a non-recurring nature and should be amortized over a 3-year period. Accordingly, the Commission has reduced Kentucky-American's operating expenses by $15,987 for the traveling screens and $10,873 for the floculator, resulting in an increase to net operating income of $13,453.

Service Company Charges

Kentucky-American reported test period billings of $855,549 from American Water Works Service Company, Inc. ("American"). This figure represents an increase of approximately 22 percent over the calendar year 1984. Kentucky-American reported that $109,317 of these expenses was due to the development of the company's comprehensive planning study and for improvements to the Richmond Road Station.[22] The Commission agrees that items of this nature did not occur in 1984 and assumes that Kentucky-American will properly account for these items as capital expenditures. However, the Commission is concerned about the treatment given other service company charges.

American billed Kentucky-American $40,538 for engineering services for the test period. Mr. Trimble testified that the charges were in conjunction with the filings of three certificate cases.[23] It is the Commission's judgment that engineering fees, as well as most other professional fees, incurred as a result of major construction projects should be capitalized. The

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22 Staff Request No. 4, Item 1, page 2.

23 T.E., page 82.

construction projects referred to above, Midway, Versailles and the 24-inch main would qualify as major undertakings.[24] The Commission further concludes that since Kentucky-American has hired a full-time engineer American no longer has to provide routine engineering services to Kentucky-American and the entire amount of engineering expense should be capitalized resulting in a decrease to Kentucky-American's operating expenses of $40,538 or an increase to net operating income of $20,303.

Kentucky-American incurred test period expenses of $84,535 for customer billing and accounting services performed by American, representing an increase of $16,364 over 1984.[25] Kentucky-American's witness Mr. Trimble attributed the increase to a changeover from regional data processing centers to a centralized control system. The AG contends that the $16,364 increase in this expense should be disallowed because Kentucky-American's contention that this procedure will reduce costs in the future is too speculative.[26] The Commission agrees that it would be unfair to the ratepayers to allow Kentucky-American to expense the entire cost of this reorganization during the test period. The Commission concludes that the increase in this expense should be treated as a non-recurring item and amortized over 3 years, resulting in a decrease to operating expenses of $10,909 or an increase to net operating income of $5,464.

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[24] Ibid.

[25] Staff Request No. 4, Item 1, page 2.

[26] T.E., pages 84,85, Brief of the AG, page 22.

In Case No. 9283 the Commission expressed concern over the rapid increase in service company expenses. At that time Kentucky-American attributed the increase to a reorganization of its parent, American Water Works. Kentucky-American contended that this reorganization would eventually lead to cost savings for some of American Water Works' subsidiaries. Based on the evidence presented in this case it would appear that Kentucky-American was not one of these subsidiaries. Given the exclusion of capital expenditures Kentucky-American shows an increase of 6.5 percent over the 1984 expenditures. Kentucky-American contends that this is "a reasonable increase if one examines the reasons for some of the increases. . . ."[27] The Commission in Case No. 9283 found Kentucky-American's 1984 service company expenses to be unreasonable and concludes that an increase of 6.5 percent over 1984 expenditures is even more unreasonable. The Commission advises Kentucky-American that service company charges will be subjected to very close scrutiny in future rate cases and that significant increases will not be tolerated without complete evidence that these charges are necessary to the ratepayers, that Kentucky-American is using every means available to hold these expenses to a minimum and that a positive cost/benefit relationship can be shown. The Commission expects Kentucky-American in its next rate proceeding to provide a full and complete analysis of all categories of service company charges for the last 5 years in such format that all charges are readily identifiable and can

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27 Brief of Kentucky-American, page 21.

be easily tracked to the proper expense or other appropriate accounts and that valid and meaningful comparisons can be made.

Insurance Expense

Kentucky-American proposed to increase its insurance expense by $230,177 in order to compensate for rising premiums for general liability and workers compensation insurance.[28] The proposed increase represents an approximate 131 percent increase over the amount charged to operating expenses in 1984. The AG has expressed concern over the increase and has cited several reasons why the Commission should disallow the entire pro forma increase.

One area of concern to the AG was the change that Kentucky-American made to its procedure for booking insurance premiums. In the past Kentucky-American has booked only 70 percent of its insurance premiums and deferred the remaining portion until adjustments were made by the insurance company.[29] Kentucky-American supports the change in booking procedure with the assertion that the change more accurately reflects the expense in the proper accounting period and that the previous method reflected wide fluctuations in the amount of expenses booked in a given year as well as timing differences between calendar and policy years.[30] It is the Commission's judgment that the change in booking procedure is appropriate in that it does provide a better matching of expenses with the proper period.

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28 Exhibit 4, Schedule 9

29 Staff Request No. 1, Item 16.

30 Ibid.

The AG expressed concern over Kentucky-American's proposed increase of $58,175 in Workers Compensation Insurance expense. The AG argues that Kentucky-American should seek to handle its own negotiations for insurance instead of merely accepting projections from American.[31] The AG referenced statements made by M. J. Kowalski in his memo to Kentucky-American, and complained that American does not understand how workers compensation operates in Kentucky.[32] Mr. Kowalski states in his memo that workers compensation "rates and modifications are not negotiable with the carrier but are regulated by the states in which we do business."[33] Kentucky is in fact an open rating state, as noted by the AG, and the Commission advises Kentucky-American and American personnel to familiarize themselves with the workers compensation laws in Kentucky.

Kentucky-American, as it should, capitalizes a portion of its workers compensation expense; however, the AG argues that Kentucky-American's capitalized payroll-related expenses should be directly proportionate to its percentage of wages capitalized.[34] This is not necessarily correct. There are several factors to be considered in determining the amount of payroll-related expenses to be capitalized, i.e., seasonal work and the particular wage category or type of job capitalized and the resulting difference

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31 Brief of the AG, page 27.

32 Ibid.

33 Staff Request No. 1, Item 16, Kowalski Memo, page 2.

34 Brief of the AG, page 28.

in applicable payroll related expenses. Without lengthy analysis it would be difficult to determine the exact amount of workers compensation expense that should be capitalized; however, it is the Commission's judgment that in this proceeding Kentucky-American's level of capitalization is adequate.

This Commission, as essentially everyone, is very concerned about the huge rise in the cost of liability insurance. During the past several months the media has given much attention to the insurance "crisis" and there has been much speculation as to whom or what is to blame. A recent study conducted by the California Public Utilities Commission states in part that there are basically three causes for the rise in insurance costs: (1) lower earnings on investments, (2) court rulings affecting liability, and (3) increases in loss claims.[35] The study also finds that:

> Water utilities are among the many businesses being adversely affected by the rising cost of liability insurance and are facing stiff increases in premiums for general and umbrella insurance policies. . .water utilities have experienced an average percentage increase of 138 percent for general liability insurance and 254 percent for umbrella insurance. . . .[36]

The Commission assumes that rates would be somewhat less in Kentucky due to the cost of living in general being lower than national averages. However, the California study highlights the fact that the insurance problem is not unique to Kentucky-American but is in fact industry-wide. The Commission, as does everyone,

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35 National Association of Regulatory Utility Commissioners Bulletin No. 20-1986, page 23.

36 Ibid.

hopes that the trend will not continue, but if it does the Commission strongly advises Kentucky-American to begin exploring alternative sources of insurance coverage.

The AG argues that since Kentucky is an open rating state for workers compensation that carriers can essentially charge what the market will bear and assumes, therefore, that Kentucky-American could seek out lower premiums and that the Commission should deny the $58,175 proposed increase in workers compensation insurance.[37] The AG also argues that Kentucky-American should attempt to negotiate its own insurance coverage for general liability insurance rather than rely on American's projections.[38] The Commission concludes that neither of the arguements changes the fact that premiums for workers compensation and general liability insurance have increased dramatically during the past year and, therefore, denies the AG's request to disallow the pro forma adjustment to insurance expense; however, the Commission again advises Kentucky-American that increases of this magnitude will not be allowed in the future without Kentucky-American proving that it has exhausted all efforts to acquire the insurance coverage that it needs at the least cost possible to its ratepayers.

Allowance for Funds Used During Construction ("AFUDC")

Kentucky-American reported $79,331 for AFUDC during the test period. Consistent with prior Orders of the Commission, Kentucky-

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[37] Brief of the AG, page 26.

[38] Ibid., page 30.

American made an adjustment to transfer this amount to net operating income. However, Kentucky-American also included this amount in its income tax calculation which erroneously reduced net operating income by $39,598, since AFUDC is not recognized for tax purposes. Therefore, the Commission has increased Kentucky-American's adjusted net operating income by $39,598.

In addition, Kentucky-American had construction work in progress ("CWIP") eligible for the computation of AFUDC at the end of the test period of $1,059,645. The Commission is of the opinion that AFUDC should be adjusted to match Kentucky-American's rate base and net operating income. Thus, the Commission has assigned the overall cost of capital of 10.98 percent to the end of period CWIP eligible for AFUDC for an adjusted level of $116,349. This results in an increase to net operating income of $37,018.

Interest Synchronization

Kentucky-American proposed interest expense for tax purposes of $2,821,426 based on its proposed level of debt and proposed cost of debt.[39] However, Kentucky-American's adjusted level of interest expense does not recognize any adjustment for the debt portion of JDIC. Therefore, the Commission, consistent with its past Orders, has determined interest expense based on the capitalization found reasonable herein of $2,785,685,[40] resulting in a decrease to net operating income of $17,840.

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39 Exhibit 4, Schedule 23.

40 $48,958,596 x .5707 x .0997 = $2,785,685

Miscellaneous Expenses

Kentucky-American reported a $1,685 test year expenditure for glass pitchers incurred as part of the company's centennial celebration. Mr. Edens testified that the pitchers were given to city dignitaries and the Board of Directors.[41] It is the AG's opinion that the expense should be disallowed because no positive effect on customer service has been shown.[42] The Commission is aware that this expense has a minimal effect on operating income; however, the Commission agrees that Kentucky-American has failed to prove that its ratepayers have benefited from this expenditure and the Commission concludes that the expense should be borne by Kentucky-American's investors. The Commission has, therefore, reduced Kentucky-American's operating expenses by $1,685, resulting in an increase of $844 to net operating income.

RATE OF RETURN

Capital Structure

Dr. Phillips, witness for Kentucky-American, recommended a capital structure containing 54.02 percent long-term debt, 7.28 percent preferred stock, 33.59 percent common equity and 5.13 percent JDIC.[43] This capital structure reflects the retirement of $1,700,000 of Series E First Mortgage Bonds on May 1, 1986. Deductions for 1986 sinking-fund requirements were also made for long-term debt and preferred stock.

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41 T.E., pages 43, 48

42 Brief of the AG, page 20.

43 Rebuttal testimony of Charles F. Phillips, Jr., Schedule 7R.

Dr. Johnson, witness for the AG, recommended an imputed capital structure containing 56.94 percent long-term debt, 7.65 percent preferred stock, 4.8 percent American Water Works long-term debt, 1.68 percent American Water Works preferred stock and 28.92 percent common equity.[44] Dr. Johnson was of the opinion that an imputed capital structure that took into consideration the parent's use of double leverage was superior to the use of a subsidiary capital structure.[45]

The Commission is of the opinion that Kentucky-American's adjusted end-of-test-period capital structure containing 57.07 percent long-term debt, 7.83 percent preferred stock and 35.10 percent common equity is reasonable. This capital structure reflects the retirement of $1,700,000 of Series E First Mortgage Bonds on May 1, 1986. The Commission has serious reservations regarding Dr. Johnson's imputed capital structure and double-leverage approach. As Kentucky-American's own capital structure is reasonable, the Commission is not inclined to impute a hypothetical capital structure based on double leverage analysis. However, the amount of financial risk inherent in Kentucky-American's capital structure is considered in the return on the benefits to Kentucky-American from its subsidiary relationship with American Water Works and will take the relationship into consideration when determining the required return on equity.

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44 Prefiled testimony of Ben Johnson, page 9.

45 Ibid.

Cost of Debt

Dr. Phillips recommended an embedded cost for long-term debt of 9.97 percent and an embedded cost for preferred stock of 7.28 percent.[46] Dr. Johnson also recommended 9.97 percent and 7.28 percent embedded costs for long-term debt and preferred stock, respectively.[47] The Commission is of the opinion that a 9.97 percent cost of long-term debt and a 7.05 percent cost of preferred stock are reasonable. The embedded cost of long-term debt reflects the retirement of $1,700,000 of Series E First Mortgage Bonds on May 1, 1986. Both costs are based on the amounts outstanding rather than the net proceeds.

Return on Equity

Dr. Phillips recommended a range of 13.74 to 14.61 percent for common equity based on a discounted cash flow ("DCF") analysis of four independent operating water utilities.[48] His recommended range of returns on equity reflects the continued downward trend in capital costs.[49]

Dr. Phillips included a 5 percent flotation cost adjustment in his recommended return on equity. The Commission is not convinced that this adjustment is appropriate. Kentucky-American does not sell common stock publicly; therefore, no significant flotation costs are incurred. Including a flotation cost

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46 Prefiled testimony of Charles F. Phillips, Jr., pages 11-12.

47 Prefiled testimony of Ben Johnson, schedule 33.

48 Rebuttal testimony of Charles F. Phillips, Jr., page 22.

49 Ibid., page 21.

adjustment would compensate Kentucky-American for a cost that was not incurred and would overstate the required return on equity.

Dr. Johnson recommended a 13 percent return on equity applied to his imputed capital structure or a 12.5 percent return applied to Kentucky-American's subsidiary capital structure.[50] He determined the required return on equity based on a comparable earnings approach and a DCF analysis. Dr. Johnson was of the opinion that his recommended return on equity reflected the relatively low risk associated with Kentucky-American.[51]

The Commission agrees with Dr. Johnson that Kentucky-American faces a relatively low level of risk. However, the Commission is of the opinion that Dr. Johnson has understated the required return on equity for Kentucky-American. For instance, as part of his comparable earnings analysis, Dr. Johnson examined earned returns for various groups of utilities and industrial companies.[52] The Commission recognizes that a company's earned return does not necessarily equate to its investor-required return. This is particularly true for regulated utilities which often earn returns on equity below authorized returns.

Dr. Johnson performed a DCF analysis for American Water Works, utilizing an 8 to 9 percent growth rate.[53] However, Value Line estimated a 12.5 percent dividend growth over the next 5

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50 Prefiled testimony of Ben Johnson, page 41.

51 Ibid., page 42.

52 Ibid., page 12.

53 Ibid., page 35.

years for American Water Works.[54] While a 12.5 percent growth rate appears to be an unreasonable expectation for the long run, the Commission is still of the opinion that Dr. Johnson's range of growth rates is too low. Therefore, his DCF analysis has understated the required return on equity for American Water Works and, hence, its subsidiary Kentucky-American.

Dr. Johnson based his estimate of the required rate of return partly upon an analysis of earnings/price ratios.[55] However, earnings/price ratios can understate the market required return on equity because they fail to account for the value of reinvested earnings. If a firm can profitably reinvest a portion of its earnings, an earnings/price ratio will produce a rate of return on equity that is too low.

In its brief, Urban County recommended a 12 to 13 percent range of returns on equity.[56]

The cost of capital has been declining as Dr. Phillips recognized in his rebuttal testimony. This is a major benefit to all utilities. Kentucky-American also derives certain benefits from its subsidiary relationship with American Water Works, such as a ready market for its common equity. These factors help to reduce the riskiness of Kentucky-American and, hence, its required return on equity. Therefore, after having considered all of the evidence, including current economic conditions, the Commission is

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[54] Value Line Investment Survey, April 25, 1986, page 749.

[55] Prefiled testimony of Ben Johnson, page 38.

[56] Brief of Urban County, page 3.

of the opinion that a return on common equity in the range of 13.0 to 14.0 percent is fair, just and reasonable. A return on equity in this range will not only allow Kentucky-American to attract capital at reasonable costs to ensure continued service and provide for necessary expansion to meet further requirements, but will also result in the lowest possible cost to the ratepayers. Within this range of returns, the Commission finds that a return on common equity of 13.50 percent will allow Kentucky-American to attain the above objective.

Rate of Return Summary

Applying rates of 13.50 percent for common equity, 7.05 percent for preferred stock and 9.97 percent for long-term debt to the capital structure approved herein produces an overall cost of capital of 10.98 percent. The additional revenue granted will provide a rate of return on net investment of 10.95 percent. The Commission finds this overall cost of capital to be fair, just and reasonable.

Authorized Increase

The required net operating income found fair, just and reasonable herein, is approximately $5,375,654. To achieve this level of operating income, Kentucky-American is entitled to increase its rates and charges to produce additional revenues on an annual basis of $1,511,637 determined as follows:

Adjusted Net Operating Income	$4,619,382
Net Operating Income Found Reasonable	5,375,654
Operating Income Deficiency	756,272
Deficiency Adjusted for Income Taxes and PSC Fees[57]	$1,511,637

RATE DESIGN

Kentucky-American proposed an across-the-board adjustment to rates of approximately 15 percent.

In Case No. 8314, the Commission ordered Kentucky-American to file a cost of service study. The study was subsequently filed in Case no. 8571,[58] and has been used by the Commission as the basis for rate design in several intervening Kentucky-American rate cases.

In the opinion of the Commission, Kentucky-American's rates should be based on the cost of service study filed in Case No. 8571, rather than on across-the-board adjustments. This opinion coincides with the opinion of Kentucky-American's witness Mr. Edens, who stated under cross-examination that "the company is of the opinion that they [rates] should be based upon a cost of service [study] whenever possible."[59]

Using the cost of service study filed in Case No. 8571 as a guide to rate design results in an increase to general water service revenue of approximately 9.44 percent and an increase to fire protection service revenue of approximately 9.34 percent.

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57 $756,272 ÷ .5003 = $1,511,637.

58 Notice of Adjustment of the Rates of Kentucky-American Water Company Effective on and after September 17, 1982.

59 T.E., page 62.

Consistent with findings in Case No. 9283, the increase applied to fire protection service has been limited to the overall increase in revenue authorized in this Order. Also, no adjustment was made to general water service for 8-inch and smaller distribution mains to reallocate revenue requirement from industrial customers to residential and commercial customers.

SUMMARY

The Commission, after consideration of the evidence of record and being advised, is of the opinion and finds that:

1. The rates proposed by Kentucky-American produce annual revenues in excess of those found reasonable herein and should be denied upon application of KRS 278.030.

2. The rates allowed in this matter on a test period basis will permit Kentucky-American to cover its operating expenses, pay its interest and provide for a reasonable dividend and a reasonable amount of surplus for equity growth.

3. The rates in Appendix A are the fair, just and reasonable rates to be charged for water service by Kentucky-American.

IT IS THEREFORE ORDERED that:

1. The proposed rates sought by Kentucky-American be and they hereby are denied upon application of KRS 278.030.

2. The rates in Appendix A be and they hereby are approved as the fair, just and reasonable rates for water service rendered by Kentucky-American on and after July 7, 1986.

3. Within 30 days from the date of this Order, Kentucky-American shall file with this Commission its revised tariff sheets setting out the rates for water service approved herein.

Done at Frankfort, Kentucky, this 8th day of July, 1986.

PUBLIC SERVICE COMMISSION

Richard D. Heman Jr.

Chairman

Vice Chairman

George N. Williams

Commissioner

ATTEST:

Secretary

APPENDIX A

APPENDIX TO AN ORDER OF THE KENTUCKY PUBLIC SERVICE COMMISSION IN CASE NO. 9482 DATED July 8, 1986.

The following rates and charges are prescribed for the customers in the area served by Kentucky-American Water Company. All other rates and charges not specifically mentioned herein shall remain the same as those in effect under authority of this Commission prior to the effective date of this Order.

CLASSIFICATION OF SERVICE

SERVICE CLASSIFICATION NO. 1

METER RATES

The following shall be the rates for consumption, in addition to the service charges provided for herein:

	1,000 Gallons Per Month	Rates Per 1,000 Gallons	100 Cubic Feet Per Month	Rate Per 100 Cubic Feet
For the first	12	1.34933	16	1.012
For the next	588	1.05466	784	0.791
For all over	600	0.94800	800	0.711

	1,000 Gallons Per Quarter	Rates Per 1,000 Gallons	100 Cubic Feet Per Quarter	Rate Per 100 Cubic Feet
For the first	36	1.34933	48	1.012
For the next	1,764	1.05466	2,352	0.791
For all over	1,800	0.94800	2,400	0.711

SERVICE CHARGES

All metered general water service customers shall pay a service charge based on the size of meter installed. The service charge will not entitle the customer to any water.

Size of Meter	Service Charge Per Month	Per Quarter
5/8"	$ 4.61	$ 13.83
3/4"	6.92	20.76
1"	11.53	34.59
1 1/2"	23.05	69.15
2"	36.88	110.64
3"	69.15	207.45
4"	115.26	345.78
6"	230.50	691.50
8"	368.80	1,106.40

CLASSIFICATION OF SERVICE

SERVICE CLASSIFICATION NO. 3

RATES

Size of Service	Rate Per Month	Rate Per Annum
4" Diameter	$ 8.52	$102.24
6" Diameter	19.19	230.28
8" Diameter	34.12	409.44
12" Diameter	76.76	921.12

CLASSIFICATION OF SERVICE

SERVICE CLASSIFICATION NO. 4

RATES FOR PUBLIC FIRE SERVICE

	Rate Per Month	Rate Per Annum
For each public fire hydrant contracted for or ordered by Urban County, County, State or Federal Governmental Agencies or Institutions	$19.19	$230.28

RATES FOR PRIVATE FIRE SERVICE

For each private fire hydrant contracted for by Industries or Private Institutions	19.19	230.28