## COMMONWEALTH OF KENTUCKY

## BEFORE THE PUBLIC SERVICE COMMISSION

## In the Matter of:

THE APPLICATION OF THE PULASKI COUNTY WATER DISTRICT NO. 2. A WATER DISTRICT ORGANIZED PURSUANT TO CHAPTER 74 OF THE KENTUCKY REVISED STATUTES, OF PULASKI COUNTY, KENTUCKY, FOR (1) A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY. AUTHORIZING AND PERMITTING SAID WATER DISTRICT FOR ADDITIONS AND IMPROVEMENTS TO THE WATERWORKS DISTRIBUTION SYSTEM, CONSISTING OF PUMPING STATIONS, WATER STOR-AGE TANKS AND THE NECESSARY DISTRIBUTION SYSTEM AND LINES NEEDED TO SERVE WATER TO SAID DISTRICT EXPANSION AREA. (2) APPROVAL OF THE PROPOSED OF FINANCING OF SAID PROJECT: AND (3) APPROVAL OF THE WATER RATES PROPOSED TO BE CHARGED BY THE DISTRICT TO CUSTOMERS OF THE DISTRICT

CASE NO. 9199

## ORDER

IT IS ORDERED that Pulaski County Water District No. 2 ("Pulaski") shall file an original and eight copies of the following information with this Commission, with a copy to all parties of record, by March 1, 1985. Pulaski shall also furnish with each response the name of the witness who will be available at the public hearing for responding to questions concerning each area of information requested. If

neither the requested information nor a motion for an extension of time is filed by the stated date, the case may be dismissed.

- 1. Provide an itemized listing of the costs incurred to date for the preparation of this case and an itemized estimate of the total cost to be incurred. Indicate any costs associated with this case that were incurred during the test year. For these costs include the account charged for each amount and a detailed explanation of the services provided by each firm or individual rendering services in connection with this case.
- 2. Provide for the test year an analysis of "outside services employed" expense per the Comparative Income Statement (Exhibit P). This analysis should include the date of the expenditure, the recipient, the duties performed or materials purchased, the total hours and hourly rate (if appropriate), and an explanation of the expenditure. If these functions are performed on a contract basis, provide details as to how the contracts were let including the terms and prices of contracts rejected. Also, provide copies of current contracts or terms of verbal agreements.
- 3. Provide a schedule of actual monthly or quarterly (if more readily accessible) operating revenues and expenses for the test year.
- 4. For each employee and commissioner provide the following information:

- a. The name, title, and total compensation received during the test period. Include a description and the amount of any fringe benefits paid for each employee and commissioner.
- b. The total number of regular and overtime hours worked.
- c. A detailed description of the duties and responsibilities of each employee and commissioner.
- d. For each employee and commissioner, provide an analysis showing changes in the level of wages, and other compensation, from January 1, 1982, to the present and include any proposed adjustments. The analysis should include an explanation for the change, the date, the amount, and the percentage of each change.
- e. A detailed explanation including copies of workpapers of the calculations and assumptions used to determine the pro forma adjustment to "operation labor" per the Comparative Income Statement (Exhibit P).
- f. For each commissioner, provide the approximate amount of time required monthly to fulfill his duties and responsibilities in official utility business.
- 5. Provide the date of each commissioner's meeting held during the test year and indicate the total number of commissioners in attendance at each meeting. In addition, provide the source of authority (i.e., Kentucky Revised Statutes, court orders, etc.) for appointing nine commissioners.

- 6. Regarding the "meter reading labor" expense per the Comparative Income Statement (Exhibit P), provide the following information for each person who performed this function on a contract basis:
  - a. A detailed description of the duties performed.
- b. The total hours per month contracted and the hourly rate (if applicable).
- c. The name, total hours worked, and total compensation received by each contracted personnel.
- 7. Provide an analysis of the "accounting and collecting" expense and the proposed adjustment per the Comparative Income Statement (Exhibit P). Include in the analysis a breakdown of the types of transactions performed by South Kentucky Rural Electric Cooperative Corporation ("South Kentucky"), the total number of each type of transaction per month of the test year, and the rates charged by South Kentucky for each type of transaction.
- 8. Provide a detailed explanation, including copies of workpapers, of the calculations and assumptions used to determine the pro forma adjustment of "purchased water" per the Comparative Income Statement (Exhibit P). For the test year, submit a schedule of purchased water per month and a schedule of water sold per month per type of customer (residential, commercial and industrial). Also, include a schedule of present rates charged by Kentucky Water Service.

- 9. Provide the names of the counties in which Pulaski presently provides water and the names of the counties in which Pulaski proposes to furnish water.
- 10. Provide a detailed explanation, including copies of workpapers, of the calculations and assumptions used to determine the 10 percent increase in "power for pumping" per residential customer. Include a copy of all power bills for the test year and a schedule of the current rates charged per KWH. Provide a schedule showing the estimated KWH used for the existing two pumping stations, the proposed additional pump in the existing station, and the proposed additional pumping station. Also, include the estimated hours per day the aforementioned pump and pumping stations are in use.
- 11. Provide a detailed explanation, including copies of workpapers, of the calculations and assumptions used to determine the pro forma adjustment of a 100 percent increase in the last 3-year average cost of maintenance of mains. In regard to the miles of line, please submit the total present miles of line and the total miles of line for the proposed extension. In addition, please provide an analysis of "maintenance of mains" expense for the test year reconciling to the Comparative Income Statement (Exhibit P) including the following:
- a. A description of the services, materials and/or labor provided in each transaction.
  - b. The payee.

- c. The amount and the date.
- d. The check or voucher number.
- 12. Provide a detailed explanation, including copies of workpapers, of the calculations and assumptions used to determine the pro forma adjustment of the "maintenance of meters" expense. Please submit an explanation of the percentage increases and decreases in the account total, as shown below:

Year	Account Total	Percent Increase <pre><decrease> Over Prior Year</decrease></pre>
1982	\$1,972	313.42%
1983	673	<65.87>%
1984	2,375	252.90%

In addition, for the test year, please provide an analysis of "maintenance of meters" expense reconciling to the Comparative Income Statement (Exhibit P) including the following:

- a. A description of the services, materials and/or labor provided in each transaction.
  - b. The payee.
  - c. The amount and the date.
  - d. The check or voucher number.
- 13. In regard to the following accounts per the Comparative Income Statement (Exhibit P), the proposed proforma adjustments have been based upon the estimated increase in residential customers. These accounts include:
  - a. Miscellaneous Service Revenue
  - b. Pumping Expenses-Operation Supplies and Expense

- c. Office Supplies and Expense
- d. Miscellaneous Expense

For each account, please submit an explanation for basing the pro forma adjustment on the relationship of the expense (revenue) per residential customer. In addition, for the test year please provide the following information in reference to the aforementioned accounts:

- e. Provide a schedule of the total reconnections with a breakdown of residential customers into single-family residential and multi-family residential (include the number of apartment units).
- f. Provide an analysis of "miscellaneous expense" reconciling to the Comparative Income Statement (Exhibit P) including the following:
- (1) A description of the services, materials and/or labor provided in each transaction.
  - (2) The payee.
  - (3) The amount and the date.
  - (4) The check or voucher number.
- 14. Provide explanations for basing the "maintenance of pumping plant" expense and the "transmission and distribution expenses-operations supplies and expense" pro forma adjustments on the relationship of the expense to the total gallons consumed. In addition, submit an analysis of each account for the test year reconciling to the Comparative Income Statement (Exhibit P) including the following:

- a. A description of the services, materials and/or labor provided in each transaction.
  - b. The payee.
  - c. The amount and the date.
  - d. The check or voucher number.
- 15. Provide a detailed explanation, including copies of workpapers, of the calculations and assumptions used to determine the pro forma adjustment to "maintenance of hydrants" per the Comparative Income Statement (Exhibit P). Include in the explanation the reasoning for using a 17-year average of the account in relationship to the increase in the length of water mains. In addition, submit an analysis of this expense for the test year reconciling to the Comparative Income Statement (Exhibit P) including the following:
- a. A description of the services, materials and/or labor provided in each transaction.
  - b. The payee.
  - c. The amount and the date.
  - d. The check or voucher number.
- 16. Provide a detailed explanation, including copies of workpapers, of the calculations and assumptions used to determine the pro forma adjustment to "property insurance" per the Comparative Income Statement (Exhibit P). Include in the explanation the reasoning for basing part of the 50 percent increase on the proposed increased salary of the manager.

- 17. Provide a depreciation schedule for the proposed expansion reconciling to the Comparative Income Statement (Exhibit P) pro forma adjustment for depreciation expense including the following:
  - a. Description of asset.
  - b. Estimated cost.
  - c. Estimated life.
- d. Depreciation expense for the adjusted test year.
- 18. Provide a detailed explanation, including copies of workpapers, of the calculations and assumptions used to determine the total financing arrangement for the extension.
- 19. Provide a detailed explanation, including copies of workpapers, of the calculations and assumptions used to determine the pro forma adjustment to "amortization of debt and interest". In addition, provide a copy of the proposed bond resolutions and mortgage agreements (if applicable).
- 20. When do you expect to connect the new customers to the system?
  - 21. Will all the new customers be residential users?
- 22. Provide your most current estimate of the number of new customers, along with an estimated average annual usage for these customers.
- 23. Please explain Miscellaneous Service Revenues shown on Exhibit P. Is this revenue collected due to penalties added to late charges?

- The hydraulic analysis filed in this case on 24. December 27, 1984, for the portion of the project designed by Crawford and Crawford and Clyde Mason reportedly depicts the operation of the existing water distribution near the existing water storage tank on Highway 80 near Nancy. the staff in its review of this information has been unable to locate the operation of both the existing water storage tank and pump station (filling and emptying of tank, etc.) Based on this, provide hydraulic analyses, supported by computations and actual field measurements, of typical operational sequences of the existing water distribution system. Computations are to be documented by a schematic map of the system that shows pipeline sizes, lengths, connections, pumps, water storage tanks, and sea level elevations of key points, as well as allocations of actual customer demands. Flows used in the analyses shall be identified as to whether they are based on average instantaneous flows, peak instantaneous flows, or any combination or variation thereof. The flows used in the analyses shall be documented by actual field measurements and customer use records. Justify fully any assumptions used in the analyses.
  - 25. Provide a summary of any operational deficiencies of the existing water system that are indicated by the hydraulic analyses or that are known from experience.
  - 26. Provide hydraulic analyses, supported by computations and field measurements, demonstrating the appropriateness of the engineering design of the proposed construction

of additions and extensions. Justify fully any assumptions used in the analyses. The hydraulic analyses for the proposed system should sufficiently integrate the hydraulic analyses for both proposed construction projects (projects designed by Crawford and Crawford and Clyde Mason, and Kenvirons) such that similar criteria (i.e., customer demands, C-factors, tank levels, etc.) is used to demonstrate the expected system operation.

- 27. Provide a pressure recording chart showing the actual 24-hour continuously measured pressure available at Pulaski County's existing 100,000-gallon water storage tank on Highway 80. Identify the 24-hour period recorded, the exact location of the pressure recorder and the sea level elevation of the recorder.
- 28. Provide a pressure recording chart showing the actual 24-hour continuously measured pressure available on Pulaski County's waterline on Highway 235 near the connection point of the proposed waterline on Highway 235. Identify the 24-hour period recorded, the exact location of the pressure recorder and the sea level elevation of the recorder.
- 29. Provide a pressure recording chart showing the actual 24-hour continuously measured pressure available on Pulaski County's waterline on Highway 80 in the vicinity of Gooley Road. Identify the 24-hour period recorded, the exact location of the pressure recorder and the sea level elevation of the recorder.

- 30. Provide a pressure recording chart showing the actual 24-hour continuously measured pressure available on Pulaski County's waterline on Highway 80 in the vicinity of the proposed connection point for Additive Alternate No. 4. Identify the 24-hour period recorded, the exact location of the pressure recorder and the sea level elevation of the recorder.
- 31. Provide a pressure recording chart showing the actual 24-hour continuously measured pressure available on the suction side of Pulaski County's proposed booster pump station location on Highway 80 near Fishing Creek. Identify the 24-hour period recorded, the exact location of the pressure recorder and the sea level elevation of the recorder.
- 32. Provide a pressure recording chart showing the actual 24-hour continuously measured pressure available near the proposed tank site on Pulaski County's existing waterline on Middle Creek Road. Identify the 24-hour period recorded, the exact location of the pressure recorder and the sea level elevation of the recorder.
- 33. In the Final Engineering Report which was filed with the Commission on January 24, 1985, sheet 38a with a hydraulic gradient is mentioned. However, staff review has not located this document in the information filed in this case. Provide this document.
- 34. Provide narrative description of the proposed daily operational sequences of the water system. Documentation

should include the methods and mechanisms proposed to provide positive control of the existing and the proposed tanks' water level. Narrative description should also include how both tanks will "work" (Expected inflow and outflow of water and approximate times of day) and how all pumps will function. Any assumptions are to be fully supported by appropriate measurements and hydraulic calculations.

Done at Frankfort, Kentucky, this 20th day of February, 1985.

PUBLIC SERVICE COMMISSION

For the Commission

ATTEST: