

COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

THE APPLICATION OF THE MEADE )  
COUNTY WATER DISTRICT, A WATER )  
DISTRICT ORGANIZED PURSUANT TO )  
CHAPTER 74 OF THE KENTUCKY REVISED )  
STATUTES, OF MEADE COUNTY, )  
KENTUCKY, FOR (1) A CERTIFICATE OF )  
PUBLIC CONVENIENCE AND NECESSITY, )  
AUTHORIZING AND PERMITTING SAID )  
WATER DISTRICT TO CONSTRUCT A NEW )  
WATERWORKS DISTRIBUTION SYSTEM, ) CASE NO. 9459  
CONSISTING OF A PUMPING STATION )  
AND THE NECESSARY DISTRIBUTION )  
SYSTEM AND LINES NEEDED TO SERVE )  
WATER TO SAID DISTRICT; (2) AP- )  
PROVAL OF THE PROPOSED PLAN OF )  
FINANCING OF SAID PROJECT; AND )  
(3) APPROVAL OF THE WATER RATES )  
PROPOSED TO BE CHARGED BY THE )  
DISTRICT TO CUSTOMERS OF THE )  
DISTRICT )

ORDER

IT IS ORDERED that Meade County Water District ("Meade County") shall file an original and seven copies of the following information with the Commission with a copy to all parties of record by February 14, 1986. If the information requested or a motion for an extension of time is not filed by the stated date, the Commission may dismiss the case without prejudice. Meade County shall furnish with each response the name of the witness who will be available at the public hearing for responding to questions concerning each item of information requested.

1. The cost of the construction reflected in Exhibit K of \$1,466,365 does not coincide with the amount in the FmHA Letter of Condition of \$1,219,900. Which is the correct amount? If the FmHA amount is incorrect, does Meade County plan to file a revised FmHA Letter of Conditions. If so, provide when available.

2. With regard to Exhibit K - Proposed Operating Revenues and Expenses, provide any documentation (work papers, assumptions, calculations, etc.) upon which Meade County relied in estimating its operating expenses.

3. When available, provide an amortization schedule and bond ordinance for the proposed FmHA bonds.

4. Has Meade County considered the option of requesting other water systems in the area to expand their service areas rather than forming a new district.

5. Provide flow test data for the City of Brandenburg's fire hydrant at or near the connection point to serve Meade County. The flow test shall be conducted in accordance with AWWA Manual No. 17. As a minimum this should include selecting a hydrant to be the "flowing" hydrant and selecting an additional hydrant for residual pressure readings. If a "back" hydrant (a hydrant between the "flowing" hydrant and the City of Brandenburg's nearest water storage tank) is not available, a residential hose bibb or faucet should be sufficient.

Care should be taken that there is no use of water at the location of the residual gauge while the flow test is being performed.

At the start of the test observe and record the normal system pressure at both hydrants. Then open the "flowing" hydrant and while the hydrant is flowing determine the discharge pressure by the use of a Pitot gauge, and record that pressure. Also observe and record the pressure at the residual hydrant.

6. Provide a map or sketch showing the exact location of the "flowing" and "back" hydrants and determine the approximate sea level elevation of each. The map should also show pipeline sizes, lengths, connections, water storage tanks, pumps, sea level elevations of key points, etc., on the City of Brandenburg's system which are pertinent to the flow test. Provide the observed level of water in the water storage tanks at the time of the flow tests and state which pumps were on and which were off during the flow tests.

7. "Recommended Standards for Water Works" by the Great Lakes-Upper Mississippi River Board of State Sanitary Engineers (Ten States Standards) in Section 7.2.2 states, "The capacity of the wells and pumps in a hydropneumatic system should be at least ten times the average daily consumption rate. The volume of the hydropneumatic tank, in gallons, should be at least ten times the capacity of the largest pump, rated in gallons per minute. For example, a 250 gpm pump should have a 2,500 gallon pressure tank."

Based on this information, provide the design criteria and calculations for the complete hydropneumatic stations. This should include how the tanks and pumps were sized, how the "cut-in" and "cut-out" pressures were determined, etc. This should also include a copy of the pump manufacturer's characteristic (head/capacity) curve on which the design of the proposed pumps for the hydropneumatic stations were based. Also state whether the design meets the above-mentioned criteria and if it does not, state why not.

8. The hydraulic analyses filed in this case for the proposed water distribution system indicate that the potential exists for the system to experience low pressure (less than 30 psig) on Line A (Stations 378 + 50 and 363 + 50), Line B (Stations 110 + 50, 123 + 00, 134 + 00) after the proposed construction is complete. Pressures of this level are in violation of PSC regulation 807 KAR 5:066, Section 6(1). Provide details of any preventive measures or additional construction Meade County intends to perform to protect against this type of occurrence. Details should be documented by hydraulic analyses.

9. The information filed in this case indicates that a coin operated water loading station is to be installed. State whether the demand for this installation was included in the hydraulic analyses. If not, provide hydraulic analyses which include the expected demand of the water loading station, supported by computations and actual field measurements, of typical operational sequences of the proposed water

distribution system. These hydraulic analyses should demonstrate the operation of all pump stations and the "empty-fill" cycles of all water storage tanks. Computations are to be documented by a schematic map of the system that shows pipeline sizes, lengths, connections, pumps, water storage tanks, wells, 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 analysis shall be documented by actual field measurements and customer use records. Justify fully any assumptions used in the analyses.

10. The information filed in this case indicates that a 2-inch water line in excess of 250 feet is proposed for Weldon Church Road. Two-inch water lines which are longer than 250 feet for non-circulating water lines and longer than 500 feet for circulating water lines are in violation of PSC regulation 807 KAR 5:066, Section 11(2a). It appears that a 3-inch or larger water line should be installed. Provide comments concerning this matter. In addition, provide a list of all proposed 2-inch water lines. This list shall include the location, number of customers, length and possibility of future extension of each line.

Done at Frankfort, Kentucky, this 17th day of January, 1986.

PUBLIC SERVICE COMMISSION

*Richard D. Hemminger*  
For the Commission

ATTEST:

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Secretary