COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

APPLICATION OF HENDERSON COUNTY WATER DISTRICT, OF HENDERSON AND WEBSTER COUNTIES, KENTUCKY, FOR APPROVAL OF CONSTRUCTION, FINANCING, AND INCREASED WATER RATES	)	CASE NO. 9577

O R D E R

IT IS ORDERED that Henderson County Water District ("Henderson") shall file an original and seven copies of the following information with the Commission with a copy to all parties of record within 3 weeks of the date of this Order. 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. Henderson 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. In order to obtain realistic results when utilizing computer hydraulic analyses to predict a water distribution system's performance, engineering references stress the importance of calibrating the results predicted to actual hydraulic

conditions. This calibration process should include matching field measurements to the results predicted by the computer over a wide range of actual operating conditions. As a minimum this should include average and maximum water consumption periods, as well as "fire flow" or very high demand periods.

Based on the above, explain the procedures used to verify the computer hydraulic analyses filed in this case. This explanation should be documented by field measurements, hydraulic calculations, etc. Also provide a detailed explanation of how the demands and demand patterns utilized in the hydraulic analyses were determined.

2. The hydraulic analyses of the existing system depict pressures lower than 30 psig at Nodes 30, 32, 52, 76, 103, 136, 137, 153, 154, and 156. Provide information as to the number of customers affected by this condition at each location. Also provide the lowest pressure experienced and whether any complaints of low pressure have been received.

3. The computer hydraulic analyses filed in this case for the proposed water distribution system indicates that the potential exists for the system to experience low pressure (less than 30 psig) at Nodes 10, 52, 76, 95, 103, 110, 111, 136, 137, 170 and 233 after the proposed construction is complete. Pressures at this level are in violation of PSC regulation 807 KAR 5:066, Section 6 (1). Provide details of any preventive measures or additional construction Henderson intends to perform to protect against this type of occurrence. Details should be documented by hydraulic analyses and field measurements.

4. Provide a copy of each of the county court orders establishing Henderson and defining its boundaries.

5. Provide a highway map at a scale of at least one inch equals two miles marked to show Henderson's water distribution system. The map of the system shall show pipeline sizes, location, and connections as well as pumps, water storage tanks and sea level elevations of key points. The map shall also be marked to show the location of Henderson's boundaries and labeled to indicate the appropriate court orders from which each boundary was determined.

6. Provide a 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 all storage tank water levels. The description should also include an hourly summary for a typical 24-hour period of how all tanks will "work" (expected inflow or outflow of water) and how all pumps will function. The description should be fully supported by appropriate field measurements and hydraulic calculations.

7. The hydraulic information filed in this case indicates that there are quite a few existing 2-inch water lines of lengths in excess of 250 feet. 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 (2) (a). Provide a list of all existing 2-inch water lines. This list shall include the location, number of customers served, length and possibility of future extension of

each line. This list should also include the lowest pressure experienced and whether any complaints of low pressure have been received.

8. Provide the criteria used in determining the location, size, overflow elevation, and head range for each of the proposed water storage tanks.

9. Is Henderson aware of any known and measurable adjustments (i.e. changes in purchased water rates, insurance rates, wages, etc.) that have occurred subsequent to the original filing? If so, Henderson should include these additional adjustments in its pro forma income statement. (All adjustments should be fully documented.)

10. On June 19, 1986, Henderson filed an amended schedule of rates. What effect does this have upon the requested revenue increase and pro forma income statement?

11. The billing analysis, Exhibit M, filed April 14, 1986, shows usage for 3/4-inch, 2-inch and 6-inch meters. The proposed rates filed June 16, 1986, shows proposed rates for 3/4-inch, 1-inch, 1 1/2-inch, and 4-inch meters.

Do you currently serve any customers on the new proposed minimums for the 3/4, 1, 1 1/2 and 4-inch meters? If so, is their monthly usage less than the proposed minimum usage allowance? If so, please provide a listing of the number of customers and their annual usage so an adjustment can be made to the billing analysis.

Done at Frankfort, Kentucky, this 3rd day of July, 1986.

PUBLIC SERVICE COMMISSION

Robert D. Henney

For the Commission

ATTEST:

Secretary