COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

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In the Matter of:

THE APPLICATION OF SOUTH WOODFORD COUNTY WATER DISTRICT: (1) FOR A CERTIFICATE THAT PUBLIC CONVENIENCE AND NECESSITY REQUIRE THE CONSTRUCTION OF EXTENDED WATER FACILITIES; (2) SEEKING APPROVAL OF THE ISSUANCE OF CERTAIN SECURITIES; AND (3) FOR AN ORDER AUTHORIZING ADJUSTMENT OF WATER SERVICE RATES AND CHARGES	)	CASE NO. 9344

O R D E R

IT IS ORDERED that South Woodford County Water District ("South Woodford") shall file an original and seven copies of the following information with the Commission with a copy to all parties of record by March 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. South Woodford 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 response to the Commission's September 11, 1985, Information Request several pressure recording charts were filed. In response to the Commission's November 15, 1985, Information Request the approximate sea level

elevations of the pressure recorders and clarification on the pressure recorder locations were filed. However, review of the above information indicates some conflicting results (i.e. the pressure on the discharge side of the pump is lower than the suction side, the pressure at the suction side of the pump is higher than the connection to Versailles, one response indicates that two recordings were made on the suction side of the pump and none on the discharge side and another response indicates that one recording was made on the suction side and one on the discharge side of the pump). Based on the above provide clarification on where each of the pressure recordings were made and the approximate sea level elevation of each recorder. Provide copies of the appropriate topographical maps which cover South Woodford's service area with the actual recorder locations clearly depicted. In addition provide comments as to the plausibility of the pressures measured. If necessary, provide updated pressure recording charts showing the actual 24-hour continuously measured pressure available at the connection point to Versailles, the suction side of South Woodford's existing pump, the discharge side of South Woodford's pump, the connection point of the proposed Mundy's Landing Road extension and the connection point for the proposed water storage tank.

2. The pump operating points as depicted in the computer hydraulic analyses do not correspond to the pump curve filed in this case. The analyses indicate the pump

operating beyond the end of the curve supplied. For the existing system the analyses depict a pump operating point of 437.7 GPM at 17.37 ft. of head; however, the maximum flow point of the pump curve is approximately 305 GPM at 24 ft. of head. In addition it is the staff's understanding that the existing pump is a variable speed pump designed to operate at a constant head of 70 feet or a constant discharge pressure of approximately 30 psig. None of the analyses filed indicate this type of operation. Please explain this discrepancy. Also provide information with supporting documentation as to the existing operation as well as the expected operation of the pump. As a minimum this should include the actual operating times of the existing pump, the actual flows and pressures maintained by the existing pump, the actual method of controlling the existing pump (i.e. time clock, pressure switches, etc.), and any other pertinent information. Documentation should include actual field measurements and hydraulic calculations. This same information should be provided for the expected operation of the existing pump after the proposed improvements are made.

3. Provide information concerning how the proposed tank volume, height and location were determined. In addition provide an explanation as to why the overflow of the proposed tank is 995.6 feet A.S.L. when ground elevations in South Woodford's service area are as high as 950 feet A.S.L., why the overflow of the proposed tank is lower than the City

of Versailles' tank, and why the proposed tank was not located near the high elevation "core" area of South Woodford's service area.

4. The computer hydraulic analyses filed in this case appear to indicate that low pressures (less than 30 psig) will be experienced at various locations after the proposed improvements are made. It also appears that the easiest method to improve pressures would be to operate the pump continuously which is the present mode of operation. This type of operation would appear to negate the "every day" usefulness of the proposed tank. It would also appear that if it is necessary to operate the pump continuously after the proposed improvements are made, by by-passing the proposed control system, the potential will exist for the proposed tank to overflow.

Based on the above, provide documentation as to the expected benefit the proposed tank is to provide and how it is expected to operate. Also provide documentation as to how South Woodford intends to address the above mentioned concerns. Documentation should include field measurements and hydraulic calculations.

5. In response to the Commission's September 11, 1985, Information Request concerning clarification on whether the proposed Mundy's Landing Road waterline extension was included in the hydraulic analyses, South Woodford indicated that junctions 19 and 21 depicted this line. However, upon

review apparently line 23 (from junction 19 to junction 21) depicts the existing water line on Mundy's Landing Road. Provide hydraulic analyses, supported by computations and actual field measurements, of typical operational sequences of the proposed water distribution system (Note--include all proposed changes). 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 analyses shall be documented by actual field measurements and customer use records. Justify fully any assumptions used in the analyses.

Done at Frankfort, Kentucky, this 20th day of February, 1986.

PUBLIC SERVICE COMMISSION

Richard D. Heman
For the Commission

ATTEST:

Secretary