COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

THE APPLICATION OF WOOD CREEK WATER DISTRICT, OF LAUREL COUNTY, KENTUCKY, FOR APPROVAL OF CONSTRUCTION, FINANCING, AND INCREASED WATER RATES	))))	CASE NO. 9594

O R D E R

IT IS ORDERED that Wood Creek Water District ("Wood Creek") shall file an original and seven copies of the following information with the Commission with a copy to all parties of record no later than September 26, 1986. If the information cannot be provided by this date, Wood Creek should submit a motion for an extension of time stating the reason a delay is necessary and include a date by which it will be furnished. Such motion will be considered by the Commission. Wood Creek 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. Provide a pressure recording chart showing the actual 24-hour continuously measured pressure on the suction and discharge sides of the high service pumps. The monitoring locations should be as close as possible to the pumps. Identity the 24-hour period recorded, the exact location of the pressure recorder and the sea level elevation of the recorder.

2. Provide an explanation as to why tank full levels were chosen as starting points in the hydraulic analyses when actual field measurements indicate that the tanks were never full.

3. The computer hydraulic analyses of the existing system indicate that the high service pump cycles on and off 7 or 8 times during a 24-hour period. However, the pressure chart for the high service pumps indicates almost continuous operation. Provide an explanation of these discrepancies documented by field measurements and hydraulic calculations.

4. The hydraulic analysis which depicts the operation of Wood Creek's existing water distribution system utilizes a more detailed network model than the hydraulic analysis of the proposed system. This makes a direct comparison between the two computer outputs difficult and as a result the affect of the improvements on the water distribution system cannot be readily determined. Because of the above difficulty provide hydraulic analysis supported by computations and actual field measurements, of typical operational sequences of the proposed water distribution system utilizing the same network model as filed July 16, 1986, for the hydraulic analyses of the existing system. These hydraulic analyses should demonstrate the operation of all pump stations and the "empty-fill" cycle of all water storage tanks. Computations are to be documented by a labeled 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 thereot. 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.

5. A preliminary review of the hydraulic information which has already been filed indicates that the water system will not receive any material benefit from the proposed improvements. In addition the analyses indicate that the proposed 20-inch water line will significantly reduce the head on the high service pumps. The computations submitted show the existing high service pumps operating out of range and subject to damaging "cavitation". In order to utilize the existing high service pumps, the discharge side of the pumps will have to be throttled thus negating any benefit of the proposed 20-inch water line. Given this information provide a detailed explanation of the purpose of the proposed construction. This explanation should be documented by appropriate hydraulic calculations and tield measurements.

Done at Frankfort, Kentucky, this 11th day of September, 1986.

PUBLIC SERVICE COMMISSION

Richard D. Heman Jr.
For the Commission

ATTEST:

Executive Director