

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

THE APPLICATION OF OHIO COUNTY WATER)
DISTRICT, (1) FOR A CERTIFICATE THAT)
PUBLIC CONVENIENCE AND NECESSITY RE-)
QUIRES THE CONSTRUCTION OF NEW PLANT)
FACILITIES; AND (2) SEEKING APPROVAL) CASE NO. 9559
OF THE ISSUANCE OF CERTAIN SECURITIES;)
AND (3) FOR AN ORDER AUTHORIZING AD-)
JUSTMENT OF WATER SERVICE RATES AND)
CHARGES)

O R D E R

IT IS ORDERED that Ohio County Water District ("Ohio County") 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. Ohio 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. Provide hydraulic analyses, supported by computations and actual field measurements, of typical operational sequences of the existing water distribution 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 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.

2. 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.

3. Provide hydraulic analyses, supported by computations and field measurements, of typical operational sequences of the complete water distribution system including the proposed additions and extensions. The hydraulic analyses should demonstrate the appropriateness of the engineering design of the proposed construction of additions and extensions. Justify fully any assumptions used in the analyses.

4. Provide a pressure recording chart showing the actual 24-hour continuously measured pressure available at the locations listed below on Ohio County's system. Identify the 24-hour period recorded, the exact location of the pressure recorder and the sea level elevation of the recorder.

a. Water line in the vicinity of the Highway 231 extension.

- b. Water line in the vicinity of the Red Hill Road extension.
- c. Water line in the vicinity of the Highway 1544 extension.
- d. Water storage tank on Highway 505 near Rosine.
- e. Water storage tanks on Highway 231.
- f. Water storage tank on Taylor Mine Road.
- g. Water storage tank on Hoover Hill Road.
- h. Water storage tank near Echols.
- i. On the suction and discharge sides of the existing pump station on Highway 369.
- j. On the suction and discharge sides of the existing pump station on Highway 231 north of Hartford.
- k. On the discharge side of the high service pumps.
- l. On the suction and discharge sides of the existing pump station on Goshen Road.
- m. On the suction and discharge sides of the existing pump station on Highway 62.
- n. On the suction and discharge sides of the existing pump station on Highway 231 south of Beaver Dam.

5. 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 water storage tank water levels. The narrative description should include an hourly summary of how all tanks will "work" (expected inflow and outflow of water) and how all pumps

will function. Any assumptions are to be fully supported by appropriate measurements and hydraulic calculations.

6. Provide a list of each of Ohio County's water storage tanks. Give the location, capacity, and overflow elevation of each tank. Explain how water is supplied to each tank.

7. Provide a list of each of Ohio County's existing pump stations. Give the location, number of pumps and their rated capacities, and the purpose of each pump station. Explain how the operation of each pump station is controlled. Provide a copy of the pump manufacturer's characteristic (head/capacity) curve for each of Ohio County's existing pumps. Identify each curve as to the particular pump and pump station to which it applies. Also state if pump is in use and if pump will remain in use, will be abandoned or will be replaced.

8. Provide a copy of the pump manufacturer's characteristic (head/capacity) curve(s) on which the design of the proposed pump station improvements was based. Also provide the design criteria and related calculations used in sizing the proposed pump stations.

Done at Frankfort, Kentucky, this 9th day of June, 1986.

PUBLIC SERVICE COMMISSION

Richard D. Herman
For the Commission

ATTEST:

Secretary