COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

THE APPLICATION OF GALLATIN COUNTY WATER DISTRICT, GALLATIN COUNTY, KENTUCKY, FOR (1) A CERTIFICATE OF PUBLIC CONVENIENCE AND NECESSITY AUTHORIZING THE DISTRICT TO CONSTRUCT A NEW WATER DISTRIBUTION SYSTEM; (2) APPROVAL OF THE PROPOSED PLAN OF FINANCING SAID PROJECT; AND (3) APPROVAL OF THE PROPOSED WATER SERVICE RATES AND CHARGES OF THE DISTRICT	)	CASE NO. 10194

O R D E R

IT IS ORDERED that Gallatin County Water District ("Gallatin Water") 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 May 20, 1988. If the information cannot be provided by this date, Gallatin Water 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. Gallatin Water 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 available at the proposed connection point to the City of Warsaw's water distribution system. Identify the 24-hour period recorded, the exact location

of the pressure recorder and the sea level elevation of the recorder. Also state the schematic junction number nearest the location of the pressure recorder.

2. Provide the criteria used in determining the location, size, overflow elevation, and head range for the proposed water storage tank. In addition, state what other sites were considered and why they were not selected. Also state why two or more tanks at several locations were not proposed. Also state why a tank at or near junction 9 was not proposed.

3. The computer hydraulic analyses filed in this case for the existing water distribution system indicate that the potential exists for the system to experience low pressure (less than 30 psig) at Nodes 9, 22, 52, and 61 when the demand or the number of customers increase. Pressures at this level are in violation of Commission regulation 807 KAR 5:066, Section 6 (1). Provide details of any preventive measures or additional construction Gallatin Water intends to perform to protect against this type of occurrence. Details should be documented by hydraulic analyses and field measurements.

4. The computer hydraulic analyses filed in this case for the proposed water distribution system indicates that the potential exists for the system to experience high pressure (more than 150 psig) at Nodes 3, 19, 91, and 110. Pressures at this level are in violation of Commission regulation 807 KAR 5:066, Section 6 (1). Provide details of any preventive measures or additional construction Gallatin Water intends to perform to

protect against this type of occurrence. Details should be documented by hydraulic analyses and field measurements.

5. The proposed pump station is to be a concrete slab, concrete block building with a concrete slab roof. Provide documentation that supports this type construction. Also state whether a shingle type roof or a built-up roof was considered for this building. In addition, state whether a "can" type below ground pump station was considered. If neither was considered, state why not.

6. Gallatin Water is proposing to pump water from the City of Warsaw to its own water storage tank in one lift. Under this operating scenario the discharge pressure at the pump station would be approximately 200 psig under normal operating conditions. The pressure could even be higher at certain times. Based on the above, provide details of the safeguards utilized in the design of the system to compensate for this type of pressure (e.g. type of fittings, pipe, mainline or individual pressure reducing valves, etc.) Also explain why this lift was not proposed in two or possibly three lifts. In addition, provide a discussion of the operation or maintenance problems that may be anticipated with this high pressure operation.

7. The construction plans call for both 4- and 6-inch blowoff valves. However, only a detail for 4-inch and smaller blowoff valves is shown on the plans. Provide clarification on this matter. If conventional fire hydrants are being considered for the proposed 6-inch blowoff valves, the following information should be considered in responding to this item. KRS 227, the

"Recommended Standards For Water Works" by the Great Lakes - Upper Mississippi River Board of State Sanitary Engineers ("Ten States Standards") and the Insurance Services Office ("ISO") all have requirements for providing fire protection. All of these references require fire hydrant installation on a minimum of 6-inch diameter water lines. For residential construction, the ISO requires the capability to deliver between 500 to 1500 gallons per minute at a residual pressure of 20 pounds per square inch for a minimum of 2 hours from any fire hydrant. The Ten States Standards allow a fire hydrant on dead-end mains for flushing only if flow and pressure are sufficient. Otherwise an approved flushing hydrant or blow-off valve should be used. Based on the above, provide information as to the purpose of the proposed fire hydrants. If the purpose of the proposed fire hydrants is to provide fire protection, provide hydraulic analyses demonstrating the capability of Gallatin Water's system to comply with the requirements of KRS 227, the ISO and the Ten States Standards. If the fire hydrants are proposed for reasons other than fire protection state why other equipment was not considered (e.g., blow-off valves, drain valves, etc.).

8. Please provide calculations and explanations of estimates for the following expenses:

a. Pumping;

b. Transmission and distribution;

c. Customer accounts;

d. Administrative and general.

Done at Frankfort, Kentucky, this 12th day of May, 1988.

PUBLIC SERVICE COMMISSION

Richard D. Heman Jr

For the Commission

ATTEST:

Executive Director