## COMMONWEALTH OF KENTUCKY BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

THE APPLICATION OF THE WHITE HALL )
WATER DISTRICT, OF MADISON COUNTY,)
KENTUCKY, FOR APPROVAL OF )
CASE NO. 9722
CONSTRUCTION, FINANCING AND )
INCREASED WATER RATES )

## ORDER

IT IS ORDERED that White Hall Water District ("White Hall") 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 April 30, 1987. If the information cannot be provided by this date, White Hall 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. White Hall 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. The computer hydraulic analyses schematic filed March 16, 1987, depicts a second existing connection to the City of Richmond's water system. This connection appears to be on U.S. 25. Provide details concerning this connection. As a minimum this should include the line size, the date the connection was made, the purpose for the connection and the effect this

connection has had on the operation of White Hall's system. The effects of this connection should be documented by appropriate field measurements and hydraulic calculations.

- 2. In response to the Commission's December 24, 1986, Information Request, White Hall stated that no pump characteristic curves were available for White Hall's existing pumps. Provide details of any field tests that were conducted on the existing pump stations (e.g. flow tests, pressure measurements, head loss tests, speed measurements, power consumption, etc.). If field tests were conducted, provide the results. If field tests were not performed, state why not. Also provide a detailed explanation of how the pump curves which were utilized in the computer hydraulic analyses were determined.
- It appears that in both the hydraulic analyses of the existing and proposed systems Tank No. 1 and the Boone's Trace Tank are constantly full and no turnover of water takes place. In addition Pump No. 1 never operates. As such it would appear that these items of water plant serve no useful purpose and are not Based on the above, provide details of White Hall's needed. operational plans for these items of water plant (e.g., the tanks and pump will be taken out of service, the system will be operated such that the water levels will be made to fluctuate and the pump made to operate, etc.). The operational plans should be documented by appropriate field measurements and hydraulic calculations.
  - 4. The computer hydraulic analyses filed in this case for the proposed water distribution system depict the proposed pump

station "operating out of range." This would indicate that this pump is unable to satisfy the system's hydraulic conditions as input. State whether this type operation is expected to occur after construction, and if it is expected, state what preventive measures or additional construction White Hall intends to perform to protect against this type of occurrence.

- 5. The input for the existing and proposed water systems indicate that there are bypass lines around the existing pump stations (Pump No. 1 and Pump No. 2). Provide clarification concerning this matter. Also indicate how these lines function (e.g., the bypass lines are open all the time but pump pressure closes a check valve, the bypass lines are controlled by a valve which is closed during pump-on cycles and open during pump-off cycles and is activated by a control system from the pump, etc.).
- 6. In response to the Commission's December 24, 1986, Information Reguest, it was stated that fire hydrants were proposed to be installed for maintenance purposes as well as to refill fire department tank trucks. The installation of conventional fire hydrants in locations where it is known that they are incapable of functioning adequately appears to be an imprudent use of resources. Based on this, state whether any consideration was given to installing blow-off valves, drain valves or other equipment for flushing lines and filling tank trucks instead of conventional fire hydrants.
- 7. The computer hydraulic analyses filed in this case for the existing and proposed water distribution system indicate that the potential exists for the system to experience high pressure

(more than 150 psig) at Node 36. Pressure at this level is in violation of PSC regulation 807 KAR 5:066, Section 6 (1). Provide details of any preventive measures or additional construction White Hall intends to perform to protect against this type of occurrence system wide. Details should be documented by hydraulic analyses and field measurements.

Done at Frankfort, Kentucky, this 31st day of March, 1987.

PUBLIC SERVICE COMMISSION

For the Commission

ATTEST: