COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

THE APPLICATION OF THE NORTH HOPKINS WATER DISTRICT, OF HOPKINS COUNTY, KENTUCKY, FOR APPROVAL OF CONSTRUCTION, FINANCING, AND INCREASED WATER RATES	))))	CASE NO. 9833

O R D E R

IT IS ORDERED that North Hopkins Water District ("North Hopkins") 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 June 19, 1987. If the information cannot be provided by this date, North Hopkins should submit a motion for an extension of time stating the reason a delay is necessary and including a date by which it will be furnished. Such motion will be considered by the Commission. North Hopkins 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 Item 1 of the Commission's February 6, 1987, Information Request, a computer printout is mentioned. However, a computer printout depicting only the hydraulic analyses of the existing water distribution system was not filed. Provide clarification concerning this matter.

2. In response to Item 3 of the Commission's February 6, 1987, Information Request, a 24-hour computer simulation depicting

the hydraulic capabilities of the proposed water distribution system was filed. This analysis depicts the proposed pumps operating continuously. This is in direct conflict with the specifications. The specifications require a telemetry control system to turn the proposed pumps on and off depending on the water level in the proposed tanks. Provide clarification concerning this matter. If the system is to operate as outlined in the specifications file a corrected hydraulic analysis.

3. The computer hydraulic analysis of the proposed water distribution system utilized a useful horsepower input to model proposed Pump No. 1. Provide the rationale for using this input as opposed to using an actual pump curve which generally gives more realistic results.

4. The information filed in this case indicates that the overflow of proposed Tank No. 1 is to be at an elevation of 630 feet above sea level ("A.S.L."). In addition the information indicates that the overflow of proposed Tank No. 2 is to be at an elevation of 640 feet A.S.L. The hydraulic analyses which were filed indicate that the normal hydraulic gradient at proposed Tank No. 1 after completion of the proposed construction will never be below 627 feet A.S.L. and that the normal hydraulic gradient at proposed Tank No. 2 will never be below 672 feet A.S.L. Under these conditions it would appear that there would be very little water turnover in proposed Tank No. 1 and that proposed Tank No. 2 would remain full and no water turnover would take place. As such it would appear that proposed Tank No. 1 would serve very little purpose and that proposed Tank No. 2 would serve no useful purpose

and would not be needed. Based on the above, provide details of the operational plans for the proposed tanks (e.g., the tanks will not be constructed, the system will be operated such that the water level will be made to fluctuate, the design of the system will be changed, etc.). The operational plan should be documented by appropriate field measurements and hydraulic calculations.

5. The computer hydraulic analyses filed in this case for the proposed water distribution system indicate that the potential exists for the system to experience low pressure (less than 30 psig) at Nodes 400 and 420. Pressures at this level are in violation of PSC regulation 807 KAR 5:066, Section 6 (1). Provide details on any preventive measures or additional construction North Hopkins intends to perform to protect against this type of occurrence. Details should be documented by hydraulic analyses and field measurements.

6. The computer hydraulic analyses filed in this case for the proposed water distribution system indicate that the potential exists for the system to experience high pressure (more than 150 psig) at Nodes 35, 70, 75, 80, 95 through 115, 125 through 150, 160 through 175, 200 through 210, 260 through 270, 290, 310, 335, 350, 385, 392 through 395, 423 through 445, 455 through 630 and 615 through 715. Pressures at this level are in violation of PSC regulation 807 KAR 5:066, Section 6 (1). Provide details on any preventive measures or additional construction North Hopkins intends to perform to protect against this type of occurrence. Details should be documented by hydraulic analyses and field measurements.

7. The computer hydraulic analyses filed in this case for the proposed water distribution system depict proposed Pump No. 2 "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 North Hopkins intends to perform to protect against this type of occurrence.

8. Pressure charts which depict pressure measured on North Hopkins' existing water distribution system near schematic junction numbers 85 and 90 were filed on May 15, 1987. These charts depict pressure at these locations varying from approximately 62 psig to 74 psig. Rough calculations by the staff, utilizing information from the computer model filed by North Hopkins, indicate that the pressure at junction 85 under existing conditions would range from approximately 70 psig to 78 psig and the pressure at junction 90 would range from approximately 78 psig to 87 psig. Provide additional information including hydraulic calculations to clarify the existing situation at these locations.

Done at Frankfort, Kentucky, this 28th day of May, 1987.

PUBLIC SERVICE COMMISSION

For the Commission

ATTEST:

Executive Director