

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

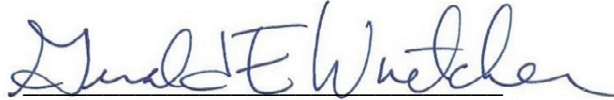
ELECTRONIC APPLICATION OF KNOX)
COUNTY UTILITY COMMISSION FOR)
AUTHORIZATION TO EXECUTE AN)
ASSISTANCE AGREEMENT WITH THE)
KENTUCKY INFRASTRUCTURE) **CASE NO. 2023-00003**
AUTHORITY AND FOR A CERTIFICATE OF)
PUBLIC CONVENIENCE AND NECESSITY)
TO CONSTRUCT THE BARBOURVILLE)
CONNECTION-KY 225 PROJECT)

**KNOX COUNTY UTILITY COMMISSION’S SUPPLEMENTAL RESPONSE
TO COMMISSION STAFF’S SECOND REQUEST FOR INFORMATION**

Knox County Utility Commission submits its Supplemental Response to Commission Staff’s Second Request for Information.

Dated: March 15, 2023

Respectfully submitted,



Gerald E. Wuetcher
Stoll Keenon Ogden PLLC
300 West Vine Street, Suite 2100
Lexington, Kentucky 40507-1801
Telephone: (859) 231-3017
Fax: (859) 259-3517
gerald.wuetcher@skofirm.com

Counsel for Knox County Utility Commission

CERTIFICATE OF SERVICE

In accordance with 807 KAR 5:001, Section 8, and the Public Service Commission's Order of July 22, 2021 in Case No. 2020-00085, I certify that this document was transmitted to the Public Service Commission on March 15, 2023 and that there is currently no party that the Public Service Commission has excused from participation by electronic means in this proceeding.


Counsel for Knox County Utility Commission

KNOX COUNTY UTILITY COMMISSION

Supplemental Response to Commission Staff's Second Request for Information Case No. 2023-00003

Question No. 1

Responding Witness: Kenneth D. Taylor

- Q-1. Refer to Knox County Commission's response to Commission Staff's First Request for Information (Staff's First Request), Item 4(f).**
- a. State the earliest date the two unlicensed operators can obtain their licenses.**
 - b. State any reason why Knox County Commission's two licensed or certified operators are insufficient to run the treatment plant at a level that allows Knox County Commission to meet its water demand and comply with certification statues or regulations.**
 - c. State how Knox County Commission is currently utilizing its two licensed operators to maximize plant output, how much that output is, and whether water needs are still able to be met.**
 - d. Explain how the proposed plan is the least-cost reasonable alternative compared to allowing the two additional operators to obtain their certification or increasing the salary offered to potential certified operator applicants**

Original Response:

- A-1. a. The two unlicensed operators are scheduled to take the licensing examination on April 14, 2023.
- b. KCUC has three licensed operators including its superintendent who is responsible for KCUC's total operations. It is operating its water treatment plant an average of 20.6 hours per day or an average of 151.2 hours each week. (See Exhibit 1 to this Response which shows the water treatment plant's monthly operating reports for the last three months.) KCUC's water treatment plant is a Class IIA water treatment plant. 401 KAR 8:030, Section 1(3)(c)1 provides that when water is treated at a Class IIA water treatment plant, a certified water treatment plant operator must be present at the water treatment plant or performing system duties. (See Exhibit 2 to this Response.) At KCUC's present level of activity, each of the water treatment plant's three operators must be physically present at the plant 50.4 hours each week. It would not allow the operators any time for vacation, training, or other job duties. Such a workload is neither reasonable, safe, or consistent with acceptable water industry standards.
- c. KCUC has obtained the Kentucky Division of Water's approval for a temporary alternative staffing plan to use the two licensed operators and the two unlicensed

operators with each working 40 hours per week. When the unlicensed operators are operating the water treatment plant, the alternative staffing plan requires a licensed operator to be available by telephone at all times the plant is in operation and to be able to respond on-site within 30 minutes. From December 1, 2022 thru February 28, 2023, the water treatment plant treated 28,063,000 gallons of water, or an average of 311,811 gallons per day, and had a maximum day production of 359,900 gallons. This alternative staffing plan has allowed KCUC to meet its customers' water needs.

- d. The proposed plan allows KCUC to provide water to the distribution system at a cost of \$2.74/1,000 gallons (\$2.10 purchase cost plus \$0.20 pumping cost plus \$0.44 debt service) versus a projected cost of \$3.02 per 1,000 gallons for water treated at the existing water treatment plant. See Exhibit 3 to this Response. Most importantly, it allows KCUC to obtain a reliable alternative source of treated water that will ensure and enhance the continuity of service.

Supplemental Response:

- d. In determining the least cost reasonable alternative, KCUC considered several factors. First, it considered the age and condition of the existing water treatment plant. KCUC's records indicate that the water treatment plant was placed into service in 1970, meaning it has been in service approximately 53 years. According to the National Association of Regulatory Utility Commissioner's *Depreciation Practices for Small Water Utilities* (Aug. 15, 1979), the publication that the Public Service Commission uses to establish the useful service life of water utility assets, the service life of a water treatment plant is forty years. Based upon the Public Service Commission's own guidelines, KCUC's water treatment plant is thirteen years beyond its useful service life. This plant has never had any significant upgrades or refurbishing. It is currently operating at 81.6 percent capacity. Given the plant's age, this level of production is not sustainable. Continued operation at this level will likely result in significant and frequent mechanical and operational problems, less reliable service and degraded water quality. Furthermore, it is likely that the plant would within a few years require significant improvements or replacement if it were to continue to operate at current levels. At a minimum, increased operation and maintenance costs are anticipated.

Second, the water treatment plant and its intake facilities are located in a 100-year flood plain. Given the effects of climate change that have brought increased flooding to eastern Kentucky, the water treatment plant is at greater risk of service disruptions, potentially for long periods from flooding. The facilities of Barbourville Utilities Commission are not subject to such risk and reliance upon those facilities improves the reliability of KCUC's service.

Third, it is more economical for KCUC to purchase water from BUC, even after debt service on the proposed facilities is taken into consideration, than to continue producing water at current levels. KCUC will save \$35,704 if it purchases 73.7

million gallons of water annually from BUC (or approximately 67 percent of the water treatment plant's annual production). Moreover, KCUC has the option of placing the water treatment plant into a reserve status and purchasing the 110,000,000 gallons of water currently produced by the water treatment plant. Under that scenario, KCUC will achieve an annual savings of \$47,100. This level of savings when combined with the greater service reliability and the significant reduction in the risk of service disruptions make the proposed project the least cost and most reasonable alternative.

Purchasing water from BUC is also consistent with the Commonwealth's policy for regionalization of water supplies. More than 20 years ago, the Kentucky General Assembly declared the need to "encourage regionalization, consolidation, and partnerships among governmental agencies, and private parties when appropriate, with the goal of making potable water and wastewater treatment available to all Kentuckians through the maximization of financial resources and the conservation of natural resources of the Commonwealth." 2000 Ky. Acts ch. 529. The course of action that KCUC has selected will result in regionalization and consolidation of water supplies and will allow both KCUC and BUC to benefit from greater economies of scale in water production while eliminating the need for KCUC to construct a replacement water treatment plant in the not so distant future.

KNOX COUNTY UTILITY COMMISSION

Supplemental Response to Commission Staff's Second Request for Information Case No. 2023-00003

Question No. 3

Responding Witness: Kenneth D. Taylor

Q-3. Describe any plans Knox County Commission has to sell water to Barbourville Utilities Commission.

Original Response:

A-3. Knox County Utility Commission ("KCUC") has no plans to make regular sales of water to the Barbourville Utilities Commission ("BUC"). However, in the event of an emergency in which BUC required additional water and KCUC could supply water without jeopardizing its own supply, it would make such sales.

Supplemental Response:

A-3. Knox County Utility Commission ("KCUC") has no plans to make regular sales of water to the Barbourville Utilities Commission ("BUC"). Based upon the Public Service Commission's own guidelines, KCUC's water treatment plant is ten years beyond its useful service life. This plant has never had any significant upgrades or refurbishing. It is unlikely that the water treatment plant can continue to operate at a high level without incurring significant and frequent mechanical and operational problems. It is likely that the plant will within a few years require significant improvements or replacement if it continues to operate at current levels. KCUC's current plan is to continue operating the water treatment plant but at a reduced level (approximately a third of its current production level). KCUC's water purchase agreement with BUC allows KCUC to increase its purchases up to 90 million gallons annually. BUC has indicated a willingness to negotiate the sale of additional water volumes. Thus, KCUC may eventually replace all of its current water treatment capacity with purchases from BUC.

KCUC currently has no plan to immediately retire its water treatment plant but, if it eventually replaces its current production with purchases from BUC, it would likely place its water treatment plant into a reserve status to permit the plant's return to service in an emergency. While KCUC has no plans to sell water to BUC, in an emergency in which BUC required additional water and KCUC could supply water to BUC while addressing its own needs, it would attempt to temporarily operating its water treatment plant at an appropriate level to assist BUC in meeting its supply requirements.

KNOX COUNTY UTILITY COMMISSION

**Supplemental Response to Commission Staff's Second Request for Information
Case No. 2023-00003**

Question No. 4

Responding Witness: Kenneth D. Taylor

Q-4. State where Barbourville Utility Commission's water comes from.

Original Response:

A-4. BUC's raw water source is Laurel Lake. BUC's treatment plant has a rated capacity of 4.03 million gallons per day ("MGD"), a peak day production of 1.73 MGD and an average daily production of 1.54 MGD.

Supplemental Response:

A-4. BUC's raw water source is Laurel Lake. BUC's treatment plant has a rated capacity of 4.03 million gallons per day ("MGD"), a peak day production of 1.73 MGD and an average daily production of 1.54 MGD. Unlike KCUC's water treatment plant and intake facilities, BUC's treatment plant is not located in a 100-year flood plain and is generally regarded as less prone to flooding and to reliability problems associated with flooding.