

COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

Petition of Northern Kentucky)
Water District for a Deviation from) Case No. 2016-00427
807 KAR 5:006 § 26(6)(b))

PETITION FOR DEVIATION

Northern Kentucky Water District, (NKWD or District) by counsel, pursuant to 807 KAR 5:001§ 22, petitions for a deviation from 807 KAR 5:006 § 26(6)(b). Following a periodic inspection, the Commission staff report dated May 27, 2016, noted the lack of certain information: "The District does not have annual written inspection records for all of its valves or meter and meter settings as required by 807 KAR 5:006, Section 26 (6)(b)." It is the annual inspection of its valves and meters that NKWD seeks a deviation.

1. NKWD's office address is 2835 Crescent Springs Rd., Erlanger, KY 41018-0640. Its principal officers are listed in its current Annual Report, which is filed with the Commission as are its prior years Reports.

Its contact email address is:

Lindsey Rechten, Acting Vice President Finance
2835 Crescent Spring Rd.
Erlanger, KY 41018-0640
(859) 578 9898 Phone
(859) 578-3668 fax
lrechten@nkywater.org

2. NKWD is a non-profit water district organized under Chapter 74 and has no articles of incorporation; its web page is www.nkywater.org

3. A description of NKWD's water system and its property stated at original cost by accounts is contained in its 2015 Annual Report, which is incorporated by reference.

4. NKWD serves approximately 300,000 persons in Kenton, Boone and Campbell Counties and sells water at wholesale to non-affiliated water distribution systems in Kenton, Boone, Pendleton and Campbell Counties.

5. NKWD is the largest Commission regulated public water system in Kentucky. It has approximately 84,000 customers and 1,300 miles of mains spread over an area of 312 sq. miles. The next three largest water districts have a combined total customer base of just over 70,000 customers: Hardin County WD # 1 – 26,900; Warren County WD – 27,500; and Mountain WD -16,800. Most districts serve only a few thousand customers. Out of a total of approximately 440,000 state-wide water district customers, NKWD serves approximately 20 percent. Because of its size, the regulation imposes an undue hardship on the District.

6. NKWD currently has approximately 22,850 valves in its system, which range in size from 1-inch to 42-inch. These valves (gate & butterfly valves) are used to isolate water mains 1-inch and larger. The District inspects/operates system valves by performing the following:

- Normal system maintenance — installing additional new valves to reduce customer service disruptions, to replace a fire hydrant, etc.
- Main break repairs — valves are operated to shut water mains down
- Normal fire hydrant repair — isolation valve on fire hydrant is shut down to perform maintenance on the fire hydrant valve assembly
- Water Main Replacement & Extension Projects — Valves are operated to allow connections to be made for extension & replacement projects and any new valves that are installed are operated and mapped
- Large valve operation – 16 inch and larger are operated every two years
- Two-man valve crew — As workload permits, the District has a two-man crew that systematically inspects & operates valves

The inspection and operation of valves includes:

- Locating the valve
- Maintaining proper site safety (i.e. traffic)
- Removing the valve lid
- Cleaning out the valve box to access the operating nut
- Operating the valve and counting the number of turns. Valve turns can range from $\frac{1}{4}$ turn to over 600 turns for large valves, which can take several hours to operate
- Restoring the valve to normal operation
- Recording and mapping the valve information

7. Current valve inspection practices:

The District inspects/operates approximately 4,080 valves per year through various water system operations, as described above. The time it takes to inspect a valve can range from 0.5 hours, including drive time, for small valves, to three or more hours for large valves. The District assumes that the average valve takes one hour to inspect/operate. To inspect each valve in the system, including drive time, the District would need to add a significant number of employees:

$$\begin{array}{r} 22,850 \text{ Valves} \\ \times \quad 1 \text{ hour per inspection including drive time} \\ \hline 22,850 \text{ hours needed for inspections} \\ / 2,080.00 \text{ full-time hours per employee} \\ \hline \mathbf{11 \text{ full- time employees needed for valve inspections}} \end{array}$$

Currently, the District provides the equivalent of approximately two (2) full-time employees that perform valve inspections. To inspect all valves in the system each year would require adding nine (9) more full-time staff.

8. Current Meter & Meter Setting Inspection Practices:

As of December 31, 2015, the District had 83,781 meters and meter settings in service that are required to be inspected annually per 807 KAR 5:006, Section 26 (6)(b). In 2015, the District inspected and changed out 8,257 meters, inspected 9,366 meters as a

result of customer service inspection requests, inspected 7,961 meters due to billing inspection requests, and inspected 4,864 meters when delinquent turn-off/turn-ons were performed. The District conservatively estimates that at least 30,000 meters and meter settings are inspected by District personnel on an annual basis, or approximately 36% of all meters and meter settings in the District's system. A visual meter inspection includes:

- Obtaining the GPS coordinates of the meter location if the GPS coordinates are not currently in the system
- Opening the meter lid and verifying that the transmitter is installed through the lid properly
- Pumping any excess water out of the crock, if needed
- Visually inspecting the crock and meter setting for any possible issues
- Obtaining a visual and an electronic read, and changing out meter if needed
- Verifying that there are no leaks inside the crock
- Operating the angle valve inside the crock to ensure proper operation
- Closing lid and making sure the lid fits the ring properly and securely

Each meter and meter setting inspection takes approximately 15 minutes to perform, excluding the drive time to get to the meter. Average drive time, conservatively estimated, is approximately 15 minutes per meter. To inspect each meter and meter setting in the system, including drive time, the District would need to add eight dedicated employees:

$$\begin{array}{r} 83,781 \text{ meters and meter settings} \\ \times .5 \text{ hours per inspection including drive time} \\ \hline 41,890.50 \text{ hours needed for inspections} \\ / 2,080.00 \text{ full time hours per employee} \\ \hline \mathbf{20 \text{ full time employees needed for meter inspections}} \end{array}$$

9. The District has a written meter testing/replacement plan in place to ensure all meters are tested and inspected periodically, however, the District is not currently staffed to inspect all meters and meter settings on an annual basis. The

District employs eight (8) full-time employees that perform meter inspections. To inspect all meters in the system each year would require adding twelve (12) more full-time staff. Combined with the nine (9) additional staff for valve inspections, this represents an increase of 14% of the District's total staff. At an average annual salary and benefits per field employee of \$55,250, the cost to comply with these two regulations is approximately \$1,160,250 annually.

10. On an annual basis, the District inspects about 18% of its valves and about 36% of its meters and meter settings. Based on records of valve inspections, the number of repaired or replaced valves is statically very small. (The District does not have similar information for meters).

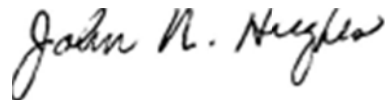
Year	Replace valve	Replace valve/hydrant	Repack or repair valve	Total replaced/year
2016 – Oct	61	6	30	97
2015	75	7	39	121
2014	98	6	22	126
2013	56	2	21	79
Totals	290	21	112	326

Total number of valves – October, 2016	22,850
Approximate number of valves operated annually	4,080
Approximate % of valves operated annually	18%
Average annual number replaced/repaired annually	109
Approximate % needing repaired/replaced annually after operation	< 3%

Due to the size of the District's service area, the quantity of valves and meters and meter settings and the District's current staffing, it is not feasible to meet 807 KAR 5:006, Section 26(6)(b) with respect to the annual inspection requirement for all valves or meter and meter settings. Based on the example of valve inspections, the District's current inspection schedule and staff levels reflect the historic employee numbers needed to maintain a high level of safe, quality water service to our customers and maintain rates as low as possible.

11. The District asserts that this petition provides good cause for a deviation from 807 KAR 5:006 § 26(6)(b) with respect to the annual inspection requirement for valves, meters and meter settings. Because of the relative size of the District compared to other regulated districts, the small number of annual repairs and replacements, as well as the increased staffing expense that would be needed to meet this requirement, the District requests a deviation to allow the inspection of approximately 20% of its valves and 33% of its meters annually.

SUBMITTED BY:



John N. Hughes
124 W. Todd St.
Frankfort, KY 40601

Attorney for Northern
Kentucky Water District
inhughes@johnnhughespsc.com
502 227 7270 Ph.