

COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

APPLICATION OF NORTHERN KENTUCKY)
WATER DISTRICT FOR APPROVAL OF) CASE NO. 2006-00398
DEPRECIATION STUDY)

ORDER

Northern Kentucky Water District ("NKWD") has filed notice of its withdrawal of its application. Considering NKWD's notice as a motion to withdraw and finding that good cause does not exist for such withdrawal, we deny the motion and direct NKWD to supplement and revise its depreciation study within 90 days of this Order.

In Case No. 2002-00105, the Commission ordered NKWD to perform a depreciation study and submit it with its next application for general rate adjustment.¹ Unable to make such filing in its following application for general rate adjustment, NKWD requested and was granted an extension of time in which to file its depreciation study.² In its next application for rate adjustment,³ it again requested an extension of

¹ Case No. 2002-00105, Application of Northern Kentucky Water District for (A) An Adjustment of Rates; (B) A Certificate of Public Convenience and Necessity for Improvements to Water Facilities if Necessary; and (C) Issuance of Bonds (Ky. PSC April 30, 2003) at 29.

² Case No. 2003-00224, Application of Northern Kentucky Water District for (A) An Adjustment of Rates; (B) A Certificate of Public Convenience and Necessity for Improvements to Water Facilities if Necessary; and (C) Issuance of Bonds (Ky. PSC Aug. 11, 2003).

³ Case No. 2005-00148, Application of Northern Kentucky Water District for (A) An Adjustment of Rates; (B) A Certificate of Public Convenience and Necessity for Improvements to Water Facilities if Necessary; and (C) Issuance of Bonds (Ky. PSC filed May 27, 2005).

time in which to submit a depreciation study. The Commission, while not expressly addressing the request for extension of time, accepted NKWD's application for general rate adjustment despite the absence of a depreciation study.

On August 31, 2006, NKWD applied for Commission approval of its depreciation study. The study, which the firm of Black & Veatch prepared, is based upon a review of the depreciation rates of 17 regional water utilities in the states of Indiana, Kentucky, Missouri, and Ohio.⁴ Based upon this review, Black & Veatch developed depreciation rates that will increase NKWD's depreciation expense approximately \$2 million annually.

The purpose of depreciation rates is the recovery of the utility's net investment in the utility property over its useful life. Depreciation rates generally consist of three elements: property service life, total cost to be recovered, and reserve requirements.⁵

In its report, Black & Veatch describes the methodology that is generally used to develop property service lives:

Normally, the determination of average service life is largely dependent on analyses of detailed property utility records. Ideally detailed records provide information regarding additions and retirements by transaction year (year added or retired) and vintage (year originally installed for each account and for unit property (water treatment plant for purposes of the report). Based on analysis of this

⁴ NKWD's Board of Commissioners voted to retain Black & Veatch to perform a depreciation study of NKWD's assets. NKWD's selection of Black & Veatch appears to be in part based upon the firm's preparation of an Asset Management Plan, whose purpose was to assess the current condition of NKWD's facilities and prioritize recommended improvements. Black & Veatch completed the Asset Management Plan in May 2004. It completed and submitted the depreciation study to NKWD on August 30, 2006.

⁵ Black & Veatch, Report on Depreciation Accrual Rates Water Utility Property of Northern Kentucky Water District (Aug. 30, 2006) at 7.

information, we can determine the average service life of the property historically retired. We adjust this average service life to reflect expectations over the remaining service life based on our experience, judgment, and those conditions anticipated to occur.⁶

We normally develop average service lives by account. We first separate accounts into two groups: mass property and unit property. Mass property represents relatively homogeneous property units that tend to be retired individually. Meters, mains, services, and hydrants are examples of mass property. Conversely, unit property represents a more heterogeneous property group, which by the nature of their interconnected or integrated operations, tends to be retired simultaneously, or as a group. We normally consider water treatment plants for water utilities as unit property. Generally, utilities maintain detailed unit property data by physical location. Utilities typically maintain mass property data on an aggregate level. For unit property accounts, we typically define service life based on planned retirement dates.

For unit property, we normally develop a history of investment activity by account for each location or site. This life history reflects gross additions, retirements, surviving property and account balances. Based on the estimated life (planned retirement date) for each unit property (water treatment plant), we typically forecast plant investment activity (interim additions, retirements and account balances) at the account level for each year the plant is forecast to remain in service. We then calculate a whole life, straight line depreciation accrual rate by dividing the gross additions (original investment plus interim additions) by the sum of the annual depreciable plant balances over the life of the unit property. Gross additions include both historical and forecast additions. Depreciable plant balances include additions and retirements to unit properties throughout the entire lifespan of such properties. In the alternative, we calculate a remaining life, straight line depreciation accrual rate by dividing the gross additions less net salvage less depreciation reserve balance by the sum of the annual depreciable plant balances over the remaining life of the property.

⁶ Id.

For mass property, we typically define service lives by account based on actuarial analyses (retirement or survivor curve analysis) or semi-actuarial analysis (simulated plant balance). These analyses, which are based on historical plant activity (retirements), utilize survivor curves to predict the percent of original additions surviving by age. More specifically, using a least squares technique, actual retirements (specific to the utility property under investigation) are compared against retirements predicted by general survivor curve types to identify the best fitting curves and lives. We use average service lives developed by this method as a principal method to determine a reasonable average service life applicable to each account.⁷

Black & Veatch notes that there are two primary methods to develop survivor curves: Retirement Analysis and Simulated Plant Balance. Use of Retirement Analysis method requires 50 years of historical retirement information. The Simulated Plant Balance method requires at least 30 years annual additions and end of year plant balances. Possessing detailed utility plant information only for the period beginning in 1999, NKWD lacks sufficient information for either method.

Lacking sufficient historical information to perform a study consistent with generally accepted methodologies, Black & Veatch surveyed the depreciation rates of 17 water utilities located in Indiana, Kentucky, Ohio or Missouri. Using these utilities as a proxy for NKWD, Black & Veatch developed the proposed depreciation rates.

Based upon our initial review of the depreciation study and recognizing the constraints under which NKWD and its agents are operating, we have several concerns about any use of the study's findings. First, while the study is reportedly based upon the depreciation rates of other utilities within this region, neither the study nor any supplemental submission in support of the study explains or identifies the characteristics that each member of the proxy group has in common with NKWD.

⁷ Id. at 7-8.

Second, neither the study nor any supplemental submission details how the members of the proxy group developed their depreciation rates. Third, aside from Kentucky-American Water Company⁸ and Hardin County Water District No. 2, the proxy group failed to include other similarly situated Kentucky water suppliers.⁹

Despite these concerns, we find no basis to permit NKWD's withdrawal of the study. As NKWD recently advised us, depreciation expense is a critical element in the development of utility rates that accurately reflect the cost of service.¹⁰ An inaccurate or improperly prepared study is likely to produce inadequate rates that do not recover the cost of service or excessive rates that far exceed the actual cost of service. Neither this Commission nor NKWD's ratepayers should be required to wait indefinitely for an accurate and reliable depreciation study to be completed. To the contrary, we find that NKWD should continue to use the study that is presently before us, but be required to supplement and augment that study to ensure the proposed depreciation rates are reliable.

⁸ We note that Kentucky-American Water Company recently filed with the Commission a new depreciation study. See Case No. 2007-00143, Adjustment of Rates of Kentucky-American Water Company (Ky. PSC filed April 30, 2007). In re-examining its present depreciation study, NKWD should consider whether Kentucky-American Water Company and its current study is an appropriate proxy given its close location and similar size and history.

⁹ The Commission is of the opinion that several other Kentucky water suppliers should be considered. These include: Ashland Municipal Water System, Boone County Water District, Bowling Green Municipal Utilities, Hardin County Water District No. 1, Louisville Water Company, and Owensboro Municipal Utilities. While municipal utilities are generally not subject to the Commission's jurisdiction, their records are generally subject to public inspection. See KRS 61.872.

¹⁰ Case No. 2007-00135, Application of Northern Kentucky Water District for (A) An Adjustment of Rates; (B) A Certificate of Public Convenience and Necessity for Improvements to Water Facilities if Necessary; and (C) Issuance of Bonds (Application filed May 29, 2007), Application at ¶ 17.

Accordingly, this case will continue and NKWD will undertake the necessary steps to improve its initial study to meet generally accepted standards.

IT IS THEREFORE ORDERED that:

1. NKWD's motion to withdraw its depreciation study is denied.

2. Within 90 days of the date of this Order, NKWD shall file a revised depreciation study that:

a. Contains specific information on all members of the proxy group, to include the methodology and the depreciation studies that each member uses to develop its depreciation rates.

b. Describes the common characteristic(s) that each member of the proxy group shares with NKWD and explains why such characteristic(s) favor the use of the member in the proxy group.

c. Uses a proxy group that contains a significant number of comparable Kentucky water suppliers or contains a detailed explanation for the lack of Kentucky water suppliers in the proxy group.

d. Contains a detailed description of the contacts that NKWD and its agents had with each member of the proxy group when studying and assessing that member's depreciation practices.

e. Contains an evaluation of the use of the depreciation rates set forth in Kentucky-American Water Company's most recent depreciation study as a proxy for NKWD's depreciation rates.

Done at Frankfort, Kentucky, this 2nd day of August, 2007.

By the Commission

ATTEST:



Executive Director

Case No. 2006-00398