STATE OF NEW HAMPSHIRE
BEFORE THE
PUBLIC UTILITIES COMMISSION

City of Nashua: Taking of Pennichuck Water Works, Inc.

Docket No. DW 04-048

DIRECT TESTIMONY OF HAROLD WALKER III

January 12, 2006

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1 **INTRODUCTION OF HAROLD WALKER**

2 Q. **Please state your name and address.**

3 A. My name is Harold Walker III. My business address is PO Box 80794, Valley Forge,
4 Pennsylvania 19484.

5 Q. **By whom are you employed and what position do you hold?**

6 A. I am Manager of Financial Studies for the Valuation and Rate Division of Gannett
7 Fleming, Inc. ("Gannett"), a multi-disciplinary engineering consulting firm. The
8 Valuation and Rate Division provides specialized financial services to utility clients,
9 including utility valuations, as well as various rate and depreciation services. The firm's
10 valuation services include conducting original cost and fair market reproduction cost
11 studies to estimate the value of distribution plant and facilities using field inventories,
12 system maps and unit costs. These economic valuation studies are performed for various
13 purposes, including voluntary acquisitions and divestitures of assets and/or common
14 stock and condemnation proceedings.

15 **PURPOSE IS TO DETERMINE THE REPRODUCTION COST NEW OF THE TANGIBLE**
16 **PERSONAL PROPERTY OF THE PENNICHUCK SYSTEM**

17 Q. **What is the objective and purpose of your testimony in this proceeding?**

18 A. I understand that the City of Nashua has filed a petition to condemn the operating assets
19 of Pennichuck Water Works, Inc. ("PWW"), which is the subject of this docket before
20 the Commission. My firm was engaged by counsel for PWW to provide certain
21 components that would ultimately be used in the overall valuation of the water system
22 owned and operated by PWW in Nashua and portions of other communities (the "PWW
23 System"). Specifically, Gannett was retained to determine the replacement cost new
24 ("RCN") of the tangible personal property associated with the PWW System. Gannett

1 conducted the RCN determination in close concert with and under the supervision of Mr.
2 Richard Riethmiller. Gannett's primary function was to prepare the RCN component of
3 the analysis, under Mr. Riethmiller's direction. Mr. Riethmiller's primary function, in
4 addition to supervising the RCN determination, was to perform the depreciation analysis.
5 Together with a separate appraisal of the PWW System land and easement assets by Mr.
6 Russell Thibeault of Applied Economic Research, the resulting replacement cost new less
7 depreciation ("RCNLD") for the tangible assets is being incorporated into the overall fair
8 market value appraisal of the PWW System operating assets being performed by Mr.
9 Robert Reilly of Willamette Management Associates. As part of his overall fair market
10 value appraisal, Mr. Reilly has also prepared a separate appraisal of the PWW System
11 discrete intangible assets.
12 Q. **How did you coordinate your efforts with Mr. Riethmiller and Mr. Reilly?**
13 A. During the course of the assignment, Gannett met with both Mr. Riethmiller and Mr.
14 Reilly to coordinate the aspects of the RCN and the RCNLD with Mr. Reilly's overall
15 valuation. These meetings resulted in a consistent and complete analysis of the value of
16 the PWW System tangible assets.
17 **HAROLD WALKER'S QUALIFICATIONS AND EXPERIENCE**
18 Q. **Have you submitted a current copy of your professional qualifications?**
19 A. I have. It is Attachment HW-4, and I will incorporate that statement of my professional
20 qualifications into this testimony by reference.
21 Q. **Please describe your valuation experience.**
22 A. I have performed numerous valuations of utility property, municipal property and
23 common stock. I am also head of the Gannett Fleming GASB 34 Task Force. The firm's

1 GASB 34-related services include inventory and valuation of utility assets, and I have
2 performed such inventories and valuations on numerous occasions.
3 Q. **Have you previously submitted testimony before the New Hampshire Public Utilities**
4 **Commission?**
5 A. Yes. I have submitted testimony as an expert before the New Hampshire Public Utilities
6 Commission. I have also served numerous times as an expert before 12 other state public
7 utility commissions, including Colorado, Connecticut, Delaware, Indiana, Michigan,
8 Missouri, New Jersey, New York, Oklahoma, Pennsylvania, Vermont and West Virginia.
9 **TOTAL RCN OF TANGIBLE PERSONAL PROPERTY**
10 Q. **Did you reach a determination as to the RCN of the PWW System tangible personal**
11 **property?**
12 A. Yes. Based on our analysis, the total RCN of PWW's tangible personal property is
13 $551,000,000 (rounded) as of December 31, 2004, the date certain. After factoring in
14 Mr. Riethmiller's observed depreciation assessment, the total RCNLD of PWW's
15 tangible assets is determined to be $412,000,000 (rounded) at the same point in time.
16 The RCNLD report is attached as Attachment HW-2, Schedules 1-20. Schedule 1 of that
17 report presents the overall RCNLD for the PWW System tangible assets. Schedules 2
18 through 19 provide the complete and detailed analysis describing the PWW System
19 tangible asset inventory, quantities, unit costs, replacement costs new, existing condition
20 assessment percentages and the RCNLD (summarized for each asset account) that is
21 summarized on Schedule 1. The workpapers for Schedules 4, 5, 7 and 8 are attached
22 hereto as Attachment HW-3.
23 **REPLACEMENT COST NEW**
24 Q. **Please explain the RCN component of the RCNLD method.**

1 A. The RCN method is one of several appraisal methods available within the cost approach
2 to property appraisal. The RCN method measures the current cost of replacing service of
3 an existing property with similar new property having the nearest equivalent utility to the
4 property being valued. For purposes of this assignment, RCN is defined as the estimated
5 cost of replacing the water treatment, storage and distribution assets of the PWW System
6 under current conditions with equivalent or similarly functional property. Our approach
7 also assumed construction of the entire system in one continuous effort.

8 The RCN analysis we performed included the preparation and verification of an
9 inventory of all the tangible personal property. Upon verification of the inventory, the
10 current material costs, construction costs, engineering costs, administration costs, interest
11 during construction, and entrepreneurial profit were applied to the inventory listing in
12 order to determine the RCN.

13 Q. **Please describe how the RCNLD determination was reached.**

14 A. Mr. Riethmiller took the RCN analysis and quantified depreciation using the observed or
15 existing depreciation method. Mr. Riethmiller's analysis included an examination of
16 both the physical deterioration and functional obsolescence (including technological
17 obsolescence), if any, of the tangible assets. Mr. Riethmiller has explained this process in
18 more detail in his testimony.

19 It should be noted that since the RCN is based primarily on replacement cost new,
20 Mr. Riethmiller adjusted his condition assessment to reflect functional obsolescence, to
21 the extent applicable. That is, since the RCN used here is the cost to replace the existing
22 assets with assets that may be functionally superior to the existing property, Mr.
23 Riethmiller may have lowered his condition assessment to account for functional

obsolescence where and if he deemed necessary. In limited instances, the RCN presented here is based on a trended original cost due to the type of assets being assessed. This latter approach was limited primarily to those items that comprise the General Plant accounts and other similar accounts (accounts 339.4-348.5) that include such items as furniture, tools, communication equipment, etc.

INVENTORY AND PRICING

Q. **Please describe how you prepared the RCN analysis.**

A. The first step in the RCN analysis was the preparation of a detailed and comprehensive inventory of the PWW System tangible assets. PWW personnel were initially interviewed in order to develop an overview of the system and to identify the various records that could be used to develop the most accurate accounting of the PWW System inventory. PWW personnel also identified and guided the Gannett inventory staff to all known, visible assets in the PWW System. The PWW System records were examined and reviewed for purposes of developing the inventory. The following data sources were reviewed to extract information about the existing components of the PWW System:

- Work order files, filed by work order (paper files in PWW's main office and electronic copies).
- Mains listing (electronic engineering file).
- Services listing (electronic engineering file).
- Valve listing (electronic engineering file).
- Hydrant listing (electronic engineering file).
- Meter listing (electronic engineering file).
- General plant account (electronic file).

- Distribution system map prepared to scale, showing water lines, valves, and hydrants.
- Inspection reports of the overall system and specific tanks.
- Drawings and plans.
- Previously published annual reports of system data.
- Interviews of PWW's personnel with institutional knowledge of the PWW System operation and assets.
- Inspection of the PWW System.

Q. **Did you consult any other data sources maintained by PWW?**

A. Yes. For regulatory purposes, PWW also maintains a listing of all pertinent property with original (historical) cost dollars in a record called the Property Budget or Continuing Property Records ("CPR"). The original cost data in the CPR are used to establish rates in the regulatory process. However the property units listed in the CPR are often not totally reflective of the actual property in the system. Our review of the PWW CPR confirmed that the property units did not adequately reflect the actual property in the system to serve as the sole information source for our inventory. However, the CPR was used as a check against the electronic engineering records and other inventory sources that were utilized.

Q. **Please describe how you performed the pricing phase of your analysis.**

A. After we completed the inventory of the PWW System assets, we conducted the inventory pricing phase of our analysis to determine the RCN of the entire system. Attachment HW-2, Schedules 2-19, contain a listing of the quantities of material; equipment necessary; and unit costs to result in the replacement of the assets. Below is a list of the pricing sources we consulted for material and equipment costs:

- direct quote from New Hampshire contractors;
- manufacturer's published pricing list(s);
- PWW's capital budget reports for the years 2002-05;
- Bancroft Contracting Corp bid dated January 2004;
- US Pipe Co.;
- contracts 1-2 for PWW's water treatment plant upgrade;
- Gannett Fleming's bid database;
- work orders details for new Hampshire utilities;
- published services such as New Hampshire Department of Transportation, Weighted Average Unit Prices for Projects; R.S. Means: 2004 Heavy Construction Cost Data; and R.S. Means: 2004 Facilities Construction Cost Data.

Q. **How did you determine the pricing information for labor and equipment crews?**

A. Labor and equipment crews were priced out based on information from contractors in the PWW area or based on the above-referenced sources. In almost all cases, items were priced based upon the actual item inventoried. In cases where a particular item was no longer available or economically justified, the pricing on current similar products was incorporated. For instance, cast iron pipe is no longer produced. The cast iron mains were priced out as ductile iron. The prevailing wage rates in the PWW area were used based on discussions with contractors and a review of bid documents. The sources of data used in the determination of the RCNLD included data related to the quantities of

1 material and equipment necessary to accomplish the reproduction or replacement and the
2 related unit costs to purchase and install the materials and equipment.
3 Q. **How did you estimate the cost of construction and development of the PWW**
4 **System?**
5 A. We estimated this cost by assuming one general contractor with 20 work crews. This
6 would result in a reasonable installation period of approximately 3.75 years for the mass
7 accounts items (i.e., mains, services, meters and hydrants). The installed price of the
8 mass accounts items was based on installing these assets in their current location(s) with
9 the applicable pavement removal, pavement replacement, backfill, and bedding included
10 in the scope of work in accordance with what is the current standard. Pricing data on this
11 was provided by construction contractors and derived from bid documents, work orders
12 and New Hampshire Department of Transportation Unit Prices for Projects. In addition
13 to material and construction costs, we included estimates of engineering and
14 administrative costs, interest during the appropriate construction period ("AFUDC"), and
15 entrepreneurial profits.
16 Q. **Does that conclude your testimony?**
17 A. Yes.
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