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February 8, 2011

VIA HAND DELIVERY

filed electronically in docket office on 02/08/11

Chairman Mary W. Freeman
c/o Sharla Dillon
Tennessee Regulatory Authority
460 James Robertson Parkway
Nashville, Tennessee 37243

Re: Docket No. 10-00189: *Petition Of Tennessee American Water Company To Change And Increase Certain Rates And Charges So As To Permit It To Earn A Fair And Adequate Rate Of Return On Its Property Used And Useful In Furnishing Water Service To Its Customers*

Dear Chairman Freeman:

Enclosed please find an original and five (5) sets of copies of Tennessee American Water Company's Rebuttal Testimony filed on behalf of the following witnesses: Bernard L. Uffelman, James H. Vander Weide, James I. Warren, Sheila A. Miller, Patrick L. Baryenbruch, Paul R. Herbert, Dr. Edward L. Spitznagel, John S. Watson and Michael A. Miller.

Two disks are included with this submission. The first disk, labeled "Docket Manager Disk" contains PDF images of the testimony of each witness. The second disk contains all of the documents submitted in their native formats.

Please file the original and four copies of this Rebuttal Testimony and stamp the additional copy as "filed." Then please return the stamped copy to me by way of our courier.

Should you have any questions concerning this matter, please do not hesitate to contact me at the email address or telephone number listed above.

Sincerely,

David Killion

Enclosures

BEFORE THE
TENNESSEE REGULATORY AUTHORITY

REBUTTAL TESTIMONY OF
PAUL R. HERBERT

ON BEHALF OF TENNESSEE-AMERICAN WATER COMPANY

CASE NO. 10-00189

CONCERNING

COST OF SERVICE ALLOCATION

AND

CUSTOMER RATE DESIGN

FEBRUARY 8, 2011

BEFORE THE TENNESSEE REGULATORY AUTHORITY

RE: TENNESSEE-AMERICAN WATER COMPANY

CASE NO. 10-00189

REBUTTAL TESTIMONY OF PAUL R. HERBERT

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

A. My name is Paul R. Herbert. My business address is 207 Senate Avenue, Camp Hill, Pennsylvania.

2. **Q. By whom are you employed?**

A. I am employed by Gannett Fleming, Inc.

3. **Q. Are you the same Paul R. Herbert that submitted direct testimony in this case?**

A. Yes, I am.

4. **Q. What is the subject of your rebuttal testimony?**

A. My rebuttal testimony will address Chattanooga Regional Manufacturers Association (CRMA) witness Mr. Michael Gorman's direct testimony and exhibits concerning the Company's cost of service allocation study and proposed rate design.

5. **Q. What does Mr. Gorman recommend with regard to the Company's cost of service allocation study?**

A. Mr. Gorman recommends alternative allocations of purchased power costs and costs associated with transmission mains.

6. Q. **Do you agree with Mr. Gorman's cost of service recommendations?**

A. No, I do not.

7. **Q. Please explain the allocation of purchased power costs.**

A. I allocated purchased power costs using factor 1 which is based on average daily usage. This is supported by the fact that the vast majority of purchased power varies with the amount of water produced and pumped to the distribution system as I will demonstrate below. Mr. Gorman suggests that the demand charge portion of the Company's electric bills be allocated on an extra capacity basis, using my Factor 6 instead of Factor 1. Mr. Gorman's method grossly over allocates the portion of power costs to extra capacity. The result of his revision would allocate less purchased power costs to the industrial and sales for resale classes and more to the residential, commercial, public authority and fire protection classes.

8. **Q. Does the AWWA Manual support Mr. Gorman's method of allocating purchased power?**

A. No, it does not. It states that "the demand portion of power costs should be allocated to extra capacity ***to the degree that it varies with the demand pumping requirements."*** (emphasis added). It does not suggest that the total demand portion of power costs should be allocated to extra capacity, only to the degree that it varies with pumping requirements.

9. **Q. Please explain how only a small portion of the total purchased power costs should be allocated to extra capacity**?

A. I have conducted an analysis (attached as Exhibit PRH-R1) of a sample of the Company's power bills at three locations representing large, medium, and small power usage and determined that the bills include a monthly demand charge regardless of the level of service. Generally, electric rates are structured with a customer charge, a demand charge and commodity charges. Depending on the rate schedule, there will be a monthly demand charge even if power is taken at a steady rate, 24 hours a day, 7 days a week. To the extent that the demand charge fluctuates from month to month, I would consider that to be the extra capacity portion of the Company's power purchases.

In my analysis, the difference between the minimum demand charge for the lowest demand month and the demand charges for the remaining months result in approximately 4.25% of the total purchased power expense attributable to extra capacity. Using the minimum demand maximizes the difference between the annualized minimum demand and the actual demand charges. Therefore, I would support a refinement to my cost allocation that would allocate a maximum of 4.25% of purchased power costs to the extra capacity function; however, as I will demonstrate, this refinement results in a very minor revision.

10. **Q. What is the difference of allocating only 4.25% of power costs using Factor 6 rather than Factor 1?**

A. At 4.25%, the portion of power costs reallocated would be approximately $92,450. Reallocating this portion on Factor 6 would allocate about $1,300 less cost to the industrial class – an insignificant amount compared to $4.3 million of total costs allocated to the industrial class.

11. Q. **What do you conclude with respect to Mr. Gorman's allocation of power costs?**

A. I have clearly demonstrated that even if Mr. Gorman's concerns with allocating power demand on an extra capacity basis are correct, the revised allocation of the demand portion of power costs would result in a very insignificant change to my original allocation. Therefore, Mr. Gorman's recommendation should be rejected.

12. **Q. Please explain Mr. Gorman's allocation of transmission mains.**

A. Mr. Gorman recommends that a portion of transmission mains should be allocated on a maximum hour basis.

13. Q. Is he correct?

A. No he is not. Transmission mains are designed to transmit maximum day quantities from the treatment plant to booster stations and storage facilities. The booster stations and storage facilities are designed to meet maximum hour demands in the distribution system.

14. **Q. On what does he rely to support his claim?**

A. He refers to a passage in the AWWA Manual that says treated water transmission and distribution mains (all mains) should be allocated to base, maximum day and maximum hour basis. He incorrectly uses this reference to claim that transmission mains alone should be allocated in this manner. Also, he ignores the fact (or doesn't understand) that I have done precisely what the AWWA Manual suggests in my allocation of transmission and distribution mains.

15. **Q. Please explain how you allocated transmission and distribution mains in your study.**

A. I separate the mains account into two groups – 1) small mains or those less than 12-inch, classified as distribution mains and 2) larger mains or those 12-inch and larger, classified as transmission mains. I allocated transmission mains to base and maximum day extra capacity functions and distribution mains to base and maximum hour extra capacity functions. This is because transmission mains are sized to meet maximum day demands (including fire demands) and distribution mains are sized to meet maximum hour demands (including fire demands). The combination of these allocations results in a portion of all mains allocated to base, a portion to maximum day extra capacity, a portion to maximum hour extra capacity and a portion allocated to fire protection. This method properly reflects the allocation of all mains in accordance with the base extra capacity method described in the AWWA Manual.

16. Q. **What do you conclude with regard to Mr. Gorman's allocation of transmission mains?**

A. Mr. Gorman's allocation of transmission mains is incorrect and should be rejected. He used a reference from the AWWA Manual related to all mains (transmission and distribution) and improperly applied it to transmission mains alone.

17. **Q. Please address Mr. Gorman's position on revenue distribution and rate design.**

A. The Company proposed to increase each class across-the-board, meaning that each class would receive approximately the same percentage increase. Mr. Gorman favors moving revenues more toward the indicated cost of service resulting in varying increases by class. Mr. Gorman's recommendation results in a 33.1% increase to the residential class rather than the 27.8% increase recommended by the Company's proposal.

18. **Q. Does Mr. Gorman's rate design consider the Company's proposal to establish a Mountain Tariff?**

A. No, it does not. The Company's proposal merged the rates for Lookout Mountain and Lakeview into a common Mountain Tariff and also moved rates for Lone Oak and Suck Creek toward this merged tariff. Mr. Gorman's proposal does not establish a common tariff for these areas and therefore should be rejected.

19. **Q. Does this conclude your rebuttal testimony?**

A. Yes, it does.

TENNESSEE REGULATORY AUTHORITY

COMMONWEALTH OF PENNSYLVANIA

COUNTY OF CUMBERLAND

BEFORE ME, the undersigned authority, duly commissioned and qualified in and for the State and County aforesaid, personally came and appeared Paul R. Herbert, being by me first duly sworn deposed and said that:

He is appearing as a witness on behalf of Tennessee-American Water Company before the Tennessee Regulatory Authority, and if present before the Authority and duly sworn, his rebuttal testimony would set forth in the annexed transcript consisting 6 of pages.

Paul R Herbert

Paul R. Herbert

Sworn to and subscribed before me
this 3rd day of February 2011.

Notary Public

My commission expires February 20, 2011.

COMMONWEALTH OF PENNSYLVANIA
Notarial Seal
Cheryl Ann Rutter, Notary Public
East Pennsboro Twp., Cumberland County
My Commission Expires Feb. 20, 2011
Member, Pennsylvania Association of Notaries

TENNESSEE AMERICAN WATER COMPANY
ANALYSIS OF POWER COSTS

Citico Station - Treatment Plant

From	To	KWH	KW	Demand Charge	KWH Charge	Other	Total
4/1/2009	4/30/2009	1,320,936	2,146	29,830.80	60,749.85	13,081.57	103,662.22
5/1/2009	5/31/2009	1,344,403	2,170	30,186.00	61,829.09	13,301.27	105,316.36
6/1/2009	6/30/2009	1,538,172	2,638	37,112.40	70,740.53	10,613.98	118,466.91
7/1/2009	7/31/2009	1,617,870	2,562	35,987.60	74,405.84	11,088.93	121,482.37
8/1/2009	8/31/2009	1,543,714	2,436	34,122.80	70,995.41	10,603.34	115,721.55
9/1/2009	9/30/2009	1,392,338	2,350	35,382.50	69,352.36	(919.10)	103,815.76
10/1/2009	10/31/2009	1,361,505	2,356	35,478.20	67,816.56	(2,283.49)	101,011.27
11/1/2009	11/30/2009	1,286,543	2,100	31,395.00	64,082.71	(6,888.87)	88,588.84
12/1/2009	12/31/2009	1,293,231	2,154	32,256.30	64,415.84	(8,769.06)	87,903.08
1/1/2010	1/31/2010	1,445,399	2,872	43,708.40	71,995.32	(10,691.06)	105,012.66
2/1/2010	2/28/2010	1,230,906	2,168	32,479.60	61,311.43	(5,117.45)	88,673.58
3/1/2010	3/31/2010	1,336,395	2,154	32,256.30	66,565.83	(714.21)	98,107.92
Total		16,711,412	28,106	410,195.90	804,260.77	23,305.85	1,237,762.52
Pro Forma @ Current Rates				423,090.70	832,395.43	23,305.85	1,278,791.98
Minimum Demand Cost (Annualized)			25,200	376,740.00			
Demand Cost Over Minimum				46,350.70			
Percent of Total Power Costs				3.62%			

Elder Mountain Pumping Station

From	To	KWH	KW	Demand Charge	KWH Charge	Other	Total
3/26/2009	4/27/2009	6,560	55.60	73.48	578.79	76.03	728.30
4/27/2009	5/27/2009	9,200	54.08	53.53	811.72	101.83	967.08
5/27/2009	6/25/2009	11,600	53.92	51.42	1,023.47	125.54	1,200.43
6/25/2009	7/27/2009	14,960	53.76	49.33	1,319.92	113.80	1,483.05
7/27/2009	8/26/2009	11,280	54.32	56.68	995.23	88.56	1,140.47
8/26/2009	9/25/2009	9,280	53.84	50.38	818.77	74.70	943.85
9/25/2009	10/27/2009	8,400	55.92	83.11	797.92	4.59	885.62
10/27/2009	11/25/2009	9,920	54.08	57.29	942.30	(7.38)	992.21
11/25/2009	12/28/2009	10,000	56.32	88.73	949.90	(44.41)	994.22
12/28/2009	1/25/2010	11,520	58.96	125.80	1,094.28	(69.05)	1,151.03
1/25/2010	2/23/2010	17,360	68.16	254.97	1,649.03	(227.38)	1,676.62
2/23/2010	3/26/2010	9,120	58.64	121.30	866.31	(28.36)	959.25
Total		129,200	677.60	1,066.02	11,847.64	208.47	13,122.13
Pro Forma @ Current Rates				1,089.50	12,272.71	208.47	13,570.68
Minimum Demand Cost (Annualized)			645.12	633.48			
Demand Cost Over Minimum				456.02			
Percent of Total Power Costs				3.36%			

TENNESSEE AMERICAN WATER COMPANY
ANALYSIS OF POWER COSTS

St. Elmo Lookout Mountain Pumping Station

From	To	KWH	KW	Demand Charge	KWH Charge	Other	Total
3/26/2009	4/27/2009	180,000	486.4	5,725.57	8,911.80	1,751.50	16,388.87
4/27/2009	5/27/2009	196,800	484.0	5,694.08	9,684.43	1,904.49	17,283.00
5/27/2009	6/25/2009	241,600	708.8	8,643.46	11,744.78	2,357.96	22,746.20
6/25/2009	7/27/2009	324,800	710.4	8,664.45	15,571.15	2,155.03	26,390.63
7/27/2009	8/26/2009	256,000	719.2	8,779.90	12,407.04	1,732.21	22,919.15
8/26/2009	9/25/2009	162,400	496.8	5,862.02	8,102.38	1,110.85	15,075.24
9/25/2009	10/27/2009	248,000	544.8	6,946.99	13,030.58	(234.45)	19,743.12
10/27/2009	11/25/2009	168,000	474.4	5,958.58	9,045.78	(307.75)	14,696.61
11/25/2009	12/28/2009	189,600	488.8	6,160.75	10,121.68	(1,055.85)	15,226.58
12/28/2009	1/25/2010	193,600	592.8	7,620.91	10,320.92	(1,335.94)	16,605.89
1/25/2010	2/23/2010	120,000	552.0	7,048.08	6,654.90	(864.16)	12,838.82
2/23/2010	3/26/2010	287,200	716.0	9,350.64	14,983.13	(1,279.01)	23,054.76
Total		2,568,000	6,974.4	86,455.42	130,578.57	5,934.88	222,968.87
Pro Forma @ Current Rates				89,496.58	136,044.48	5,934.88	231,475.93
Minimum Demand Cost (Annualized)			5,692.8	71,502.91			
Demand Cost Over Minimum				17,993.66			
Percent of Total Power Costs				7.77%			

Summary

Total for 3 Locations	19,408,612	35,758	497,717.34	946,686.98	29,449.20	1,473,853.52
Pro Forma @ Current Rates			513,676.78	980,712.62	29,449.20	1,523,838.60
Minimum Demand Cost (Annualized)			448,876.40			
Demand Cost Over Minimum			64,800.38			
Percent of Total Power Costs			**4.25%**			