COMMONWEALTH OF KENTUCKY
BEFORE THE PUBLIC SERVICE COMMISSION

IN THE MATTER OF:	)	
ADJUSTMENT OF THE RATES OF KENTUCKY-AMERICAN WATER COMPANY	)	**CASE NO. 2004-00103**

REBUTTAL TESTIMONY
OF
DR. EDWARD L. SPITZNAGEL, JR.
ON BEHALF OF
KENTUCKY-AMERICAN WATER COMPANY

October 8, 2004

REBUTTAL TESTIMONY
OF
EDWARD L. SPITZNAGEL, JR.

1. Q. Please state your name, business address, and employer.

A. My name is Edward L. Spitznagel, Jr., and my business address is Campus Box 1146, One Brookings Drive, St Louis, Missouri 63130. I am employed by Washington University.

2. Q. What is the purpose of your rebuttal testimony in this case?

A. First, to correct a misstatement in the testimony of Ms. Andrea Crane. Second, to point out an additional argument in my response, which she either missed or chose not to comment on, supporting the decrease over time in water consumption.

3. Q. What is her misstatement?

A. On page 37, line 3 of her testimony, she says "The Company claims that this reduction is the result of two factors. First, it claims that the decline in consumption per customer is due to the difference between the thirty-year normal used in this case and the thirty-year normals used in previous cases."

4. Q. How should this be corrected?

A. It should be acknowledged that my response to Information Request 49a explains that changes in the thirty-year average Palmer Drought Severity Index (toward increasing dryness) from the Oct1997-Sep1998 residential estimate to the Dec2000-Nov2001 estimate caused the GCD projections for average weather to stay relatively constant. That is, the change to increasing dryness masked the time trend for decreasing consumption.
From the Dec2000-Nov2001 estimate to the Dec2004-Nov2005 estimate, the PDSI remained nearly the same. Thus, the time trend, which had always been statistically significant in all four estimates, finally led to a lower estimate of consumption for Dec2004-Nov2005.

Therefore, the estimated decline in residential consumption is due to the "thirty-year normal" <u>not</u> changing from the Dec2002-Nov2001 estimate to the Dec2004-Nov2005 estimate. Rather, the changes in thirty-year normals from the Oct1997-Sep1998 estimate to the Dec2000-Nov2001 held the consumption estimates high, despite the statistically significant time trend downward in every model.

For commercial consumption, there was not a within-model time trend downward in the first three models. In the fourth model, for Dec2004-Nov2005, there was a statistically significant downward time trend, as estimated from the previous seven

years of consumption. Thus, there was no evidence from earlier models that consumption should have decreased, but from the Dec2004-Nov2005 model, it was predicted to decrease, at the rate of –22.05 GCD per year. Over the four years, this accounts for more than half of the difference in the estimates of 1553.43 and 1385.52.

5. Q. What argument did Ms. Crane miss or not comment on?

A. My response to Information Request 49a also examined the actual (not modeled) decrease in consumption billed during the four non-weather-sensitive months of January through April, from 1997 to 2003. For these months, there is no weather normalization because outside use of water is little or non-existent. For residential customers, the decrease was –2.77 GCD per year, and for commercial customers the decrease was –17.34 GCD per year. These are very substantial changes, and they account for approximately 80% of the decreases estimated in my models for Dec2004-Nov2005, which were –3.29 GCD per year for residential customers and –22.05 GCD per year for commercial customers.

These decreases in indoor-only water consumption must largely be due to water-conserving fixtures and appliances. Their large magnitudes should counter Ms. Crane's doubts, expressed on page 36, lines 8-11, and page 39, lines 7-9, as to the effectiveness of water conserving fixtures and appliances in reducing consumption.

6. Q. Does this conclude your rebuttal testimony?

A. Yes, it does.