

2005-460

Commonwealth of Kentucky
Before the Public Service Commission

RECEIVED
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PUBLIC SERVICE
COMMISSION

In the Matter of:

Application of Christian County)
Water District for Deviation from) Case No. 2005-
Purchased Water Refund Regulation)

PETITION FOR DEVIATION

Christian County Water District, by counsel, petitions for a deviation from the refund requirement of 807 KAR 5:068, pursuant to 807 KAR 5:068(4)(c).

In early 2004, Christian County Water District became aware of a possible problem with one of the meter registers of the city of Hopkinsville, which is the District's wholesale supplier. After an investigation, it was determined that the meter at the Highway 272 metering location was over registering water usage. According to information from the meter's manufacturer, it was projected that the meter was registering approximately 156% of its designed capacity.

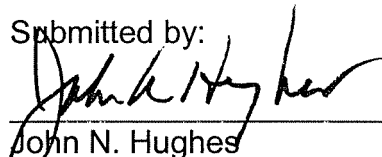
The District requested corrected billings for the meter. After several months of negotiation, the District and the city reached an agreement on the amount of refund. The city agreed to pay the District a total of \$192,533.70 in twelve equal payments. The first payment was made in January, 2005 and the last is due in December of 2005. All funds received have been placed in the

District's Depreciation Contingency Account. A copy of the correspondence between the parties is attached.

Because the refund is relatively small and is based on a meter error, not a rate adjustment, the District requests authorization to use this money toward the purchase of radio read water meters. These meters would eliminate the task of customers reading their own meters and also help the District monitor and control its water loss. The total cost of the meters is in excess of \$650,000, so the money received from the city will only provide a partial funding for the purchase. The use of the funds for this purpose will benefit all customers.

For these reasons, the District requests a deviation from the customer refunding requirement of the regulation and authorization to use the funds for radio read meters.

Submitted by:



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

Attorney for Christian County
Water District

Hopkinsville Water Environment Authority
401 East 9th Street • P.O. Box 628 • Hopkinsville, Kentucky 42241-0628

Len F. Hale
General Manager



Phone (270) 887-4246
Fax (270) 887-4244

November 1, 2004

Mr. Ashbel Brunson III, Chairman
Christian County Water District
P.O. Box 7
Hopkinsville, KY. 42241

Subject: KY 272 Master Meter

Dear Ash:

In response to your letter of September 10, 2004, the HWEA Board voted unanimously to approve your request that the repayment of \$192,533.70 be made in twelve equal monthly payments. These payments will begin in December 2004 and will be in the amount of \$16,044.47. The last payment to be made in November 2005 will be \$16,044.53.

If you have any questions, please contact us.

Sincerely,


Robert Carter,
Chairman

CHRISTIAN COUNTY WATER DISTRICT

P.O. Box 7
Hopkinsville, KY 42241-0007
Phone: 270-886-3696
Fax: 270-886-0708

Water Commissioners

Ashbel Brunson
Chairman

Steve Hunt
Secretary

J. David Johnson
Treasurer

Barbara Morris

Ronald Adams

September 10, 2004

Robert Carter, Chairman
HWEA
P O Box 628
Hopkinsville, KY 42241-0628

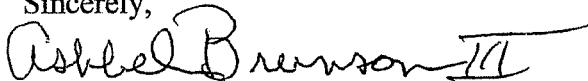
RE: Hwy 272 Master Meter

Dear Bob:

The Board of Commissioners of the Christian County Water District received and reviewed HWEA's August 19th response to a requested billing adjustment by CCWD. It is the Commission's desire to reach a fair and equitable settlement agreement, while working within the guidelines of similar types of adjustment agreements. Therefore, this Commission is agreeable to accept four years of estimated repayment in the amount of, \$192,533.70. As proposed, the repayment schedule of twelve equal monthly installments is acceptable.

We do appreciate your cooperation with this matter and we do look forward to working with you on many future projects.

Sincerely,



Ashbel Brunson,
Chairman

Hopkinsville Water Environment Authority
401 East 9th Street • P.O. Box 628 • Hopkinsville, Kentucky 42241-0628

Len F. Hale
General Manager



Phone (270) 887-4246
Fax (270) 887-4244

August 19, 2004

Mr. Ashbel Brunson, Chairman
Christian County Water District
P.O. Box 7
Hopkinsville, KY. 42241-007

Subject: KY 272 Master Meter Billing

Dear Ash:

Upon notification by the Christian County Water District (CCWD) on June 7, 2004 that the KY 272 Master Meter was improper, HWEA began an investigation to determine the facts regarding the claim contained in the subject letter. Our investigation revealed that the KY 272 master meter did contain a register that was inconsistent with the meter assembly, which would cause erroneous readings. Immediately HWEA replaced the register with the proper unit on June 10, 2004.

However HWEA was concerned with how this problem could have happened and existed for almost 9 years. All HWEA meters are Neptune meters supplied by Neptune Equipment Company (although other suppliers also represent Neptune). Most of the meters are TT type and read in cubic feet consumption. Our investigation revealed that Neptune Equipment had no records of supplying the KY 272 meter to us. This meant that the meter was supplied by someone else. Also our records showed that the original meter installed read in gallons rather than cubic feet. At that time in April 1995 we contacted Neptune and requested that the meter be changed out and they recommended that HWEA just change out the register. Neptune sent us a TT register since their records indicated that most of HWEA meters are of the TT type.

A further check of our records in 1995 indicated that the contractor for your contract to install mains on KY 272 and KY 164 also installed this master meter. Our work records show that HWEA extended the existing KY 272 main to the master meter and constructed the meter box around the meter. This explains why an HPT meter and one that read in gallons was originally installed. Unfortunately TT registers can fit into an HPT meter and actually work, although the readings will be inaccurate.

Mr. Ashbel Brunson
August 19, 2004
Page 2

The HWEA Board considered all of the facts at our monthly meeting on August 18, 2004 and at the recommendation of our general manager voted to reimburse the CCWD. Although HWEA was not entirely at fault for this situation, the fact is that the CCWD was over charged for water used through this master meter.

In his July 16, 2004 letter, Mr. James Owen stated that he would try and convince the CCWD Board to accept back payment of the amount overcharged for the last four years as fair and equitable. We trust this offer is still available. HWEA would also request that the reimbursement occur as a credit to the KY 272 meter consumption until the balance owed CCWD has been paid.

If you need additional information from us or would like to meet to discuss this matter further, please contact us. Otherwise the Board has authorized the payment of the overage based on the conditions listed above.

Sincerely,


Robert Carter,
Chairman

c: HWEA Board of Commissioners
Len Hale, General Manager
Andrew Self, HWEA Attorney
James Owen, CCWD Manager

CHRISTIAN COUNTY WATER DISTRICT

P.O. Box 7
Hopkinsville, KY 42241-0007
Phone: 270-886-3696
Fax: 270-886-0708

Water Commissioners

William Lile
Chairman

Steve Hunt
Secretary

J. David Johnson
Treasurer

Ashbel Brunson
Barbara Morris

July 16, 2004

Len Hale
General Manager
HWEA
P O Box 628
Hopkinsville, KY 42241-0628

RE: Master Meter Hwy 272

Dear Len:

Please thank your staff for their timely response in replacing the register on the Hwy 272 master meter. Summer time is, of course, a busy time but our Board has been informed of your system's desire to insure that in this case the "incorrect register" was the problem. In the meantime, we have received our most recent bill for this location. As you are aware, this statement helps to verify the factory's comments and to indicate that the manufacturer's formula is correct. We have taken the liberty to research and have located some of the past billing statements for this location. Enclosed is billing information for most of those statements.

Our records indicate that the register in question (the "improper register") was installed in June 1995. As you and we are now aware, this miscalculation has been going on for sometime. While inquiring into the proper mechanism to calculate an adjustment, we were informed that under the "Commercial Code" for utilities such as ours, overcharges are normally adjusted for the four years prior to detection. We realize, as do you, that this has been going on for longer than four years. However, it is my thinking that I can convince my Board that this would be a fair and equitable period by discussing comparable litigated occurrences.

We both realize that the real problem in question is that problems sometimes do happen. Most utilities rely on factory or sales representatives to assist in fitting the correct component to the correct application. When this system breaks down, then an adjustment has to be made.

Should you need any additional information or if we can be of any further assistance to you, please feel free to contact us.

Sincerely

A handwritten signature in cursive script that reads "James Owen". The signature is written in black ink and is positioned above the printed name.

James Owen
General Manager

HIGHWAY 272 METER READING

<u>Billing Dates</u>	<u>Cu. Ft. from meter billed</u>	<u>Correct reading</u>	<u>Difference (ft.3)</u>	<u>Gallons</u>	<u>Amount Overestimated</u>	
5/3/04-6/2/04	115,570	73,730	41,840	3,138,000	\$4,989.42	
3/31/04-5/3/04	112,770	71,943	40,827	3,062,025	\$4,868.61	
2/26/04-3/31/04	109,060	69,576	39,484	2,961,300	\$4,726.23	
1/30/04-2/26/04	74,840	47,745	27,095	2,032,125	\$3,243.27	
12/29/03-1/30/04	129,830	82,827	47,003	3,525,225	\$5,626.25	
	542,070	345,821	196,249	14,718,675	\$23,453.78	\$ 23,453.78
12/3/03-12/29/03	116,180	74,119	42,061	3,154,575	\$5,034.70	
11/3/03-12/3/03	96,550	61,559	34,991	2,624,325	\$3,779.02	
10/2/03-11/3/03	90,800	57,927	32,873	2,465,475	\$3,550.28	
9/2/03-10/2/03	82,390	52,562	29,828	2,237,100	\$3,221.42	
8/1/03-9/2/03	102,060	65,111	36,949	2,771,175	\$3,990.49	
7/1/03-8/1/03	120,800	77,066	43,734	3,280,050	\$4,723.27	
6/2/03-7/1/03	92,700	59,139	33,561	2,517,075	\$3,624.58	
5/1/03-6/2/03	114,090	72,786	41,304	3,097,800	\$4,460.83	
3/31/03-5/1/03	110,990	70,808	40,182	3,013,650	\$4,339.66	
2/28/03-3/31/03	113,340	72,307	41,033	3,077,475	\$4,431.57	
1/29/03-2/28/03	101,520	64,767	36,753	2,756,475	\$3,969.33	
12/30/02-1/29/03	105,490	67,299	38,191	2,864,325	\$4,124.64	
	1,246,910	795,450	453,460	33,859,500	\$49,249.79	\$ 49,249.79
12/3/02-12/30/02	88,520	56,473	32,047	2,403,525	\$3,461.08	
10/30/02-12/3/02	101,070	64,480	36,590	2,744,250	\$3,951.72	
10/1/02-10/30/02	83,730	53,417	30,313	2,273,475	\$3,273.81	
8/29/02-10/1/02	118,190	75,402	42,788	3,209,100	\$4,621.10	
7/31/02-8/29/02	119,930	76,512	43,418	3,256,350	\$4,689.14	
7/1/02-7/31/02	109,220	69,679	39,541	2,965,575	\$4,270.44	
5/31/02-7/01/02	106,850	68,167	38,683	2,901,225	\$4,177.77	
5/1/02-5/31/02	92,280	58,872	33,408	2,505,600	\$3,608.06	
4/2/02-5/1/02	90,120	57,494	32,626	2,446,950	\$3,523.61	
3/1/02-4/2/02	104,820	66,872	37,948	2,846,100	\$4,098.38	
1/31/02-3/1/02	87,280	56,026	31,254	2,344,050	\$3,375.43	
1/3/02-1/31/02	87,590	55,880	31,710	2,378,250	3,424.68	
	1,189,600	759,274	430,326	32,274,450	46,475.22	\$ 46,475.22
12/4/01-1/3/02	90,180	55,880	34,300	2,572,500	\$3,704.40	
11/2/01-12/4/01	87,150	55,599	31,551	2,366,325	\$3,407.52	
10/3/01-11/2/01	95,100	60,671	34,429	2,582,175	\$3,718.34	
9/4/01-10/3/01	96,110	61,315	34,795	2,609,625	\$3,757.87	
8/2/01-9/4/01	109,050	69,571	39,479	2,960,925	\$4,263.74	
8/2/01-7/3/01	99,830	63,688	36,142	2,710,650	\$3,903.34	
6/1/01-7/3/02	96,210	61,379	34,831	2,612,325	\$3,761.76	
5/1/02-6/1/01	101,270	64,607	36,663	2,749,725	\$3,959.61	
4/2/01-5/1/02	97,200	62,011	35,189	2,639,175	\$3,800.42	
3/2/01-4/2/01	82,780	52,811	29,969	2,247,675	\$3,236.66	
2/5/01-3/2/01	65,830	41,998	23,832	1,787,400	\$2,573.86	
1/10/01-2/5/01	71,230	45,443	25,787	1,934,025	\$2,785.00	
	1,091,940	694,973	396,967	29,772,525	\$42,872.52	\$ 42,872.52

HIGHWAY 272 METER READING

<u>Billing Dates</u>	<u>Cu. Ft. from meter billed</u>	<u>Correct reading</u>	<u>Difference (ft.3)</u>	<u>Gallons</u>	<u>Amount Overestimated</u>	
12/4/00-1/10/01	120,450	76,843	43,607	3,270,525	\$4,709.56	
11/3/00-12/4/00	98,380	62,763	35,617	2,671,275	\$3,846.64	
10/5/00-11/3/00	92,860	59,242	33,618	2,521,350	\$3,630.74	
9/5/00-10/5/00	98,960	63,133	35,827	2,687,025	\$3,869.32	
8/3/00-9/5/00	128,450	81,947	46,503	3,487,725	\$5,022.33	
7/5/00-8/3/00	122,340	78,049	44,291	3,321,825	\$4,783.44	
6/2/00-7/5/00	118,170	75,389	42,781	3,208,575	\$4,620.36	
5/2/00-6/2/00	97,980	62,508	35,472	2,660,400	\$3,830.98	
5/2/00-4/4/00	78,800	50,272	28,528	2,139,600	\$3,081.02	
3/3/00-4/4/00	87,370	55,739	31,631	2,372,325	\$3,416.16	
2/4/00-3/3/00	81,110	51,746	29,364	2,202,300	\$3,171.31	
1/4/00-2/4/00	94,620	60,365	34,255	2,569,125	\$3,699.55	
	1,219,490	777,996	441,494	33,112,050	47,681.41	\$ 47,681.41
12/6/99-1/4/00	95,460	60,901	34,559	2,591,925	\$3,732.38	
11/3/99-12/6/99	94,580	60,339	34,241	2,568,075	\$3,698.04	
10/5/99-11/3/99	79,740	50,872	28,868	2,165,100	\$3,117.74	
9/2/99-10/5/99	100,940	64,397	36,543	2,740,725	\$3,946.65	
8/3/99-9/2/99	91,890	58,623	33,267	2,495,025	\$3,592.84	
7/8/99-8/3/99	105,200	67,144	38,056	2,854,200	\$4,110.05	
6/4/99-7/8/99	98,740	62,993	35,747	2,681,025	\$3,860.68	
5/5/99-6/4/99	93,920	59,918	34,002	2,550,150	\$3,672.22	
4/2/99-5/5/99	84,310	53,787	30,523	2,289,225	\$16,844.96	
3/4/99-4/2/99	68,530	43,720	24,810	1,860,750	\$2,679.48	
2/4/99-3/4/99	65,970	42,087	23,883	1,791,225	\$2,579.37	
1/7/99-2/4/99	64,150	40,926	23,224	1,741,800	\$2,508.19	
	1,043,430	665,707	377,723	28,329,225	\$54,342.60	\$ 54,342.60
12/4/98-1/7/99	76,650	48,900	27,750	2,081,250	\$2,997.00	
11/5/98-12/4/98	91,640	58,464	33,176	2,488,200	\$3,583.01	
10/8/98-11/5/98	89,350	57,003	32,347	2,426,025	\$3,493.48	
9/2/98-10/8/98	103,990	66,342	37,648	2,823,600	\$4,065.98	
8/5/98-9/2/98	92,010	58,670	33,340	2,500,500	\$3,600.72	
7/7/98-8/5/98	79,580	50,770	28,810	2,160,750	\$3,111.48	
6/2/98-7/7/98	97,090	61,940	35,150	2,636,250	\$3,796.20	
5/1/98-6/2/98	85,090	54,285	30,805	2,310,375	\$3,326.95	
4/1/98-5/1/98	64,060	40,868	23,192	1,739,400	\$2,504.74	
3/4/98-4/1/98	52,690	33,615	19,075	1,430,625	\$2,060.11	
2/4/98-3/4/98	52,130	33,257	18,873	1,415,475	\$2,038.29	
1/6/98-2/4/98	63,390	40,441	22,949	1,721,175	\$2,478.50	
	947,670	604,555	343,115	25,733,625	\$37,056.46	\$ 37,056.46
12/3/97-1/6/98	72,430	46,208	26,222	1,966,650	\$2,831.98	
11/4/97-12/3/97	66,040	42,131	23,909	1,793,175	\$2,582.18	
10/7/97-11/4/97	72,500	46,253	26,247	1,968,525	\$2,834.68	
9/3/97-10/7/97	57,380	36,607	20,773	1,557,975	\$2,243.49	
8/5/97-9/3/97	60,970	38,897	22,073	1,655,475	\$2,383.89	
7/7/97-8/5/97	66,510	42,431	24,079	1,805,925	\$2,600.54	

HIGHWAY 272 METER READING

<u>Billing Dates</u>	<u>Cu. Ft. from meter billed</u>	<u>Correct reading</u>	<u>Difference (ft.3)</u>	<u>Gallons</u>	<u>Amount Overestimated</u>
11/6/96-12/5/96	44,600	28,453	16,147	1,211,025	\$1,743.88
10/7/96-11/6/96	55,560	35,446	20,114	1,508,550	\$2,172.31
9/10/96-10/7/96	44,330	28,281	16,049	1,203,675	\$1,733.30
7/5/96-8/6/96	17,590	11,222	6,368	477,600	\$687.74
5/3/96-6/4/96	17,430	11,120	6,310	473,250	\$681.48
4/3/96-5/3/96	14,000	8,932	5,068	380,100	\$547.34
3/5/96-4/3/96	13,150	8,389	4,761	357,075	\$541.20
2/8/96-3/5/96	5,190	3,311	1,879	140,925	\$202.94
1/3/96-2/8/96	9,680	6,176	3,504	262,800	\$378.43
	221,530	141,330	80,200	6,015,000	\$8,688.62
12/4/95-1/3/96	16,730	10,673	6,057	454,275	\$654.16
11/6/95-12/4/95	44,600	28,453	16,147	1,211,025	
10/7/95-11/6/95	55,560	35,446	20,114	1,508,550	
9/10/95-10/7/95	44,330	28,281	16,049	1,201,425	
8/6/95-9/10/95	24,250	15,471	8,779	658,425	
7/5/95-8/6/95	17,590	11,222	6,368	477,600	
6/4/95-7/5/95	16,080	10,259	5,821		
5/3/95-6/4/95	17,430	11,120	6,310		
4/3/95-5/3/95	14,000	8,932	5,068		
3/5/95-4/3/95	13,150	8,389	4,761		
2/8/95-3/5/95	5,190	3,311	1,879		
1/3/95-2/8/95	9,680	6,176	3,504		
12/4/95-1/3/95	16,730	10,673	6,057		
	295,320	188,406	106,884		
			106,914		

CHRISTIAN COUNTY WATER DISTRICT

P.O. Box 7
Hopkinsville, KY 42241-0007
Phone: 270-886-3696
Fax: 270-886-0708

Water Commissioners

William Lile
Chairman

Steve Hunt
Secretary

J. David Johnson
Treasurer

Ashbel Brunson

Barbara Morris

June 7, 2004

Len Hale
Hopkinsville Water Environment Authority
P O Box 628
Hopkinsville, KY 42241-0628

RE: Account # 0030-21812-001
Highway 272 Meter

Dear Mr. Hale:

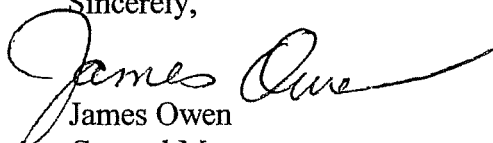
As you may be aware from talking with your staff, we recently detected the water meter for the Hwy 272 metering location was over registering water usage or in laymen terms, "running fast". According to the manufacturer's representatives, the register and or the measuring chamber, was from a different style of meter and therefore incorrect. This error was responsible for the excessive reading we have experienced and thus for the inflated water billing.

To allow us to correct our records, please supply us with the date the original chamber was removed and the current chamber was placed into service. This will help determine possibly how long this problem has been occurring.

According to the information supplied by the manufacturer, we are currently projecting this meter is registering at approximately 156% of its designed capacity due to this unexpected alteration. Independent meter testing verified the manufacturer calculation formula to be close to actual "as found" field test flow results.

As you can expect, we are requesting prior billing amounts to be corrected. If you could supply us with corrected monthly billing adjustments, this would make tracking easier for our auditors. As always thank you for your assistance. Should we be of any future assistance, please feel free to contact us.

Sincerely,


James Owen
General Manager



NEPTUNE.

Neptune Technology Group Inc. • 1800 Alabama Highway 229 • Tallahassee, AL 38078 • Phone (334) 283-8555 • Fax (334) 283-7497

Fax message

To: <i>James Owen</i>	Location: Tallahassee, Alabama
cc:	Fax: <i>270-886-0708</i>
From: <i>Josh</i> Phone: Fax: 334-283-7497	Date: <i>6/4/04</i>
Subject: <i>Meter Registers</i>	Pages (inc): <i>2</i>

Notice: The information contained in this facsimile is privileged information and may be confidential and is intended only for the use of the individual or entity named above. If the reader of this message is not the intended recipient, please be advised that any dissemination, distribution or copying of the communication is strictly prohibited. If this communication has been received in error, please notify us by telephone and return the facsimile to us at the address above via U.S. Postal Service. Thank You.

Bill Correction Procedure

<u>METER</u>	<u>#</u>	<u>METER</u>	<u>#</u>
T-10		T/T	
5/8	432.7	2	0.8616
3/4	240.3	3	0.5417
1	112.7	4	0.2996
1 1/2	50.0	6	0.0867
2	28.1	8	0.0467
		10	0.0300
T-8		HPT	
5/8	354.4	1 1/2 - 2	1.1389
3/4	242.4	3	2.0945
1	94.6	4	1.4158
1 1/2	35.8	6	0.1359
2	19.2	8,10, 12	0.1416
		16,20	0.0142

Register

Meter

HP Prot.III

6	0.1416
8	0.1137
10	0.1001

To determine the actual water usage when an improper register has been mounted on a meter, use the following formula.

$$\frac{\text{Indicated Usage} \times \text{Revolutions for Register Type}}{\text{Revolutions for Meter Type}} = \text{Actual Usage}$$

240.3
432.7

{Multiply usage by # for Register, and divide by # for Meter}

Example: 3" Trident Turbine was on a 5/8" T-10 Disk Meter.

$$\frac{2,928,100 \text{ (indicated Usage)} \times 0.5417}{432.7} = 3666 \text{ gallons actually used.}$$

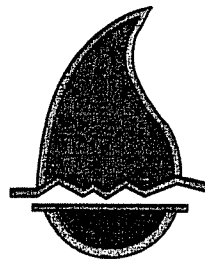
Hopkinsville Water Environment Authority

401 East 9th Street • P.O. Box 628 • Hopkinsville, Kentucky 42241-0628

Phone (270) 887-4246

Fax (270) 887-4244

Len F. Hale
General Manager



May 26, 2004

Mr. James Owen
Christian County Water District
P.O. Box 7
Hopkinsville, KY. 42241-0007

Subject: Master Meter Testing

Dear James:

In response to your letter of April 28, 2004, we had our attorney, Andrew Self, research and comment on the PSC requirement for the testing of master meters. Although HWEA believes that the PSC has no authority to force HWEA and other municipalities to test master meters, as a gesture of cooperation we have decided to test some of our larger master meters. This will be conducted over the next several weeks.

We appreciate your suggestion that we use D&K Meters to perform the field tests. However we already have a contractual relationship with another firm to test our meters. We are making arrangements with this company to conduct the testing. Once we have the results from these tests, we will make the results available to you.

We trust this arrangement is satisfactory to you. However if you have any questions or need additional information, please contact us.

Sincerely,

L.F. Hale
General Manager

c: HWEA Board of Commissioners

CHRISTIAN COUNTY WATER DISTRICT

P.O. Box 7
Hopkinsville, KY 42241-0007
Phone: 270-886-3696
Fax: 270-886-0708

Water Commissioners

William Lile
Chairman

Steve Hunt
Secretary

J. David Johnson
Treasurer

Ashbel Brunson

Barbara Morris

May 20, 2004

Len Hale
General Manager
HWEA
P O Box 682
Hopkinsville, KY 42241-0682

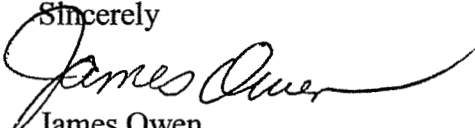
Dear Mr. Hale:

Christian County Water District will be taking its Highway 41, (Madisonville Road) elevated water storage tank off line for painting in approximately two to three weeks. We anticipate this procedure will take approximately eight weeks. In the interim, our Dawson Road tank will serve this area. Your system may notice a variation in pressure, however we do not anticipate any drastic changes.

As mentioned during previous correspondence, would it be prudent to look at possibly allowing your Crofton system to also back feed off of our Greenville Road system. This would require a road bore at the Pennyrile Parkway. However, it would provide your system an additional avenue for service. It should be money well spent by your system.

On a different note, after County schools adjourn for the summer, Christian County Water District will be conducting meter testing at some of those schools. We tentatively, have D & K Meter scheduled to do meter testing at some of these schools on June 3rd. Should you also wish to have some of your meters tested while they are in the County, we are sure this can be arranged. You can either contact us and we will relay the message or you can contact them directly at 1-800-264-3512.

If you require any additional information, please feel free to contact us.

Sincerely

James Owen
General Manager

CHRISTIAN COUNTY WATER DISTRICT

P.O. Box 7
Hopkinsville, KY 42241-0007
Phone: 270-886-3696
Fax: 270-886-0708

Water Commissioners

William Lile
Chairman

Steve Hunt
Secretary

J. David Johnson
Treasurer

Ashbel Brunson

Barbara Morris

April 28, 2004

Len Hale
HWEA
P O Box 628
Hopkinsville, KY 42241-0628

RE: Master Meters

Dear Len:

Last week, we received your correspondence concerning the master meters, which serve CCWD. As you are aware, we are regulated by the Kentucky Public Service Commission. During a recent visit their field inspector for our area strongly suggested that we obtain meter test data from any purchase sources CCWD might have. As you may have guessed follow up correspondence from the PSC found this item as a deficiency and CCWD has until May 6, 2004 to forward to the PSC a "detailed written response" to correct this deficiency. Therefore, we are requesting that the master meters, which serve the Christian County Water District, be tested. Once these test results are conducted, please contact us, as soon as possible, with the test data so that we may convey these results to the PSC. Also, it was strongly recommended that we have a CCWD representative present during the field testing procedures.

In hopes of buying some time, we contacted D & K Meters which field tested several larger meters for the Water District. While we were in the Crofton area we had D & K test both the 4 inch gallon meter and the 2 inch cubic ft meter. The meter which is currently being used the 4 inch Precision meter had pebbles blocking the screen. These pebbles were removed and the intermediate rate was slightly lower than allowed. However, the D & K

representative comments were that the % of margin adjustment decrease was to close to calibrate this meter at this time.

As mentioned, we also had them test the 2 inch cubic ft. meter, which belongs to HWEA and had not been used for some time. It only tested at 50% on high flow. D & K representative examined the meter and chamber in hopes of retesting the meter and visually saw nothing wrong with this meter (they expected to find a pebble). We will remove this meter and turn it in to your field Service department (since it is not in use and to avoid it being accidentally activated).

In hopes of attempting to show a good faith effort to our PSC field representative, we also had D & K field test one of our purchase water sources from HWEA (the meter we reference as the Greenville Road master meter). This meter was reported to be jetting, but it could be calibrated into compliance. Those field test result ranges were:

High 102.4 Intermediate 102.0 Low 100%

The representative from D & K stated that the high and intermediate ranges were out of compliance but could be calibrated in a few minutes. This jetting, at the current rate, cost the Water District over 1.5 million gallons of excessive usage recorded annually.

D & K was the only company contacted who would give us a timetable for having someone come down. Once again please contact us when you would like to do the testing so we can honor our PSC representative's request.

As always thanks for your help.

Sincerely

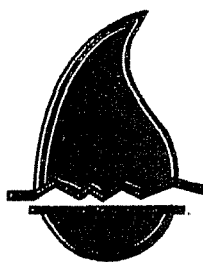


James Owen
General Manager

Hopkinsville Water Environment Authority

471 East 9th Street • P.O. Box 628 • Hopkinsville, Kentucky 42241-0628

Len F. Hale
General Manager



HWEA

Phone (270) 887-4246

Fax (270) 887-4244

March 22, 2004

Christian County Water District
1960 Dawson Springs Road
Hopkinsville, KY 42240

ATTN: James Owen, General Manager

Re: Christian County Water District
Master Meters – Meter Tests / Calibration

Mr. Owen;

Per your letter dated 03/19/2004, please note we have not conducted any tests or calibrated any of the master meter's serving the Christian County Water District.

We trust that this information is thorough and complete, however, if you should have any question or comments, please contact Derrick Watson, Director of Operations as (270)-887-4129.

Sincerely,

Len Hale
General Manager

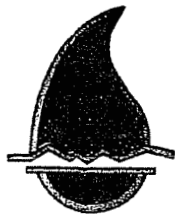
enclosure 03/19/2004 CCWD Letter

cc: c:\file\hwea\ccwd\03222004.LJO.doc

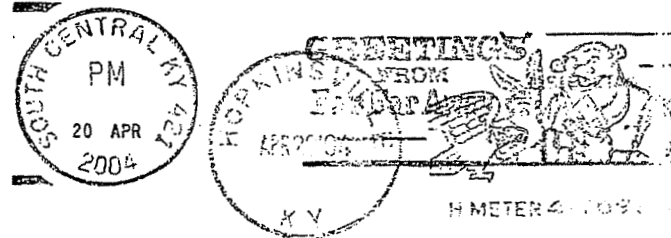
Hopkinsville Water Environment Authority

401 East 9th Street • P.O. Box 628 • Hopkinsville, Kentucky 42241-0628

*Received
April 21, 2004*



HWEA



Christian County Water District
ATTN: James Owen, GM
1960 Dawson Springs Road
P. O. Box 7
Hopkinsville, KY 42241-0007



MAR 22 2004

CHRISTIAN COUNTY WATER DISTRICT

P.O. Box 7
Hopkinsville, KY 42241-0007
Phone: 270-886-3696
Fax: 270-886-0708

Water Commissioners

William Lile
Chairman

Steve Hunt
Secretary

J. David Johnson
Treasurer

Ashbel Brunson

Barbara Morris

March 19, 2004

Derrick Watson
HWEA
P O Box 628
Hopkinsville, KY 42241-0628

RE: Master Meters

Dear Mr. Watson:

As you are aware, Christian County Water District (CCWD) is regulated by the Kentucky Public Service Commission (PSC). As a portion of their annual inspection and review process, CCWD is required to have on file for PSC inspection copies of any recent meter test results. The PSC has tentatively scheduled to have a representative visit our office on March 31st. If possible, could you forward copies of test results on any master meters furnishing water to CCWD which you may have available. This is a PSC check list item and your assistance will help to keep us in compliance with their request.

Should you need any additional information or if we can be of any further assistance to you please feel free to contact us.

Sincerely



James Owen
General Manager

HOPKINSVILLE WATER ENVIRONMENTAL AUTHORITY

Highway 272 Sales Point /Master Meter

The Meter Identified as the Meter for this location was reported by the Neptune Factory to have an incorrect Register mounted on this meter base. The Neptune factory has supplied the following formula to allow for the correction for this inaccuracy.

Formula as supplied:

Multiple Usage by the # supplied by the factory (0.0867) and divide the total of these numbers by the factory number for the base (0.1359)

Or

(Multiply usage by # for register, and divide by # for Meter)

- (1) Usage Dates
- (2) Total of usage read from Meter Register
- (3) Reading after Correction by Formula
- (4) Difference, the overcharged amount in Cubic Feet
- (5) The overcharged amount converted from Cubic feet to Gallons
- (6) The approximate dollar amount overcharged

(1) Billing Dates	(2) Cu. Ft. From Meter Billed	(3) Correct Reading # When Formula Used	(4) Difference	(5) Gallons	(6) Credit
05/03/04 to 06/02/04	115570	73,730	41,840 ft3	3,138,000	\$4,989.42
03/31/04 to 05/03/04	112770	71,943	40,827 ft3	3,062,025	\$4,868.61
02/26/04 to 03/31/04	109060	69,576	39,484 ft3	2,961,300	\$4,726.23
01/30/04 to 02/26/04	74840	47,745	27,095 ft3	2,032,125	\$3,243.27
12/29/03 to 01/30/04	129830	82,827	47,003 ft3	3,525,225	\$5,626.25
12/03/03 to 12/29/03	116180	74,119	42,061 ft3	3,154,575	\$5,034.70
11/03/03 to 12/03/03	96550	61,559	34,991 ft3	2,624,325	\$3,779.02
10/02/03 to 11/03/03	90800	57,927	32,873 ft3	2,465,475	\$3,550.28
09/02/03 to 10/02/03	82390	52,562	29,828 ft3	2,237,100	\$3,221.42
08/01/03 to 09/02/03	102060	65,111	36,949 ft3	2,771,175	\$3,990.49
07/01/03 to 08/01/03	120800	77,066	43,734 ft3	3,280,050	\$4,723.27
06/02/03 to 07/01/03	92,700	59,139	33,561 ft3	2,517,075	\$3,624.58
12 Month Test Period Over Charges (Totals)			450,246 ft3	33,768,450	\$51,377.54

Under Kentucky's Commercial Code, you may request reimbursement for overcharges for four years from the time of detection. Of course, HWEA can make this good for as long after that as they want to. This Meter problem appears to go back to 1995. The factory said this meter was definitely faulty because the register had been changed out with an improper register, which was installed in the field. The folks with the State who have been monitoring our situation said it would be worth the District time to pursue reimbursement.

Even with the contracts we have, it was implied that prior court cases and legal decisions favor the District. Folks do not value dishonest scales even if accidentally used for measurement. The best thing HWEA could do is offer to reimburse the District at 10cents per thousand gallon for the water we purchased over the next four or five years.

We will purchase approximately 400 million gallons a year so at ten cents per thousand this would be \$40,000. Over the past twelve months, we were over charged \$51,377 so if they would agree to reduce our purchase cost of water by 10 cents per thousand gallons for the next five years this should equal out. It will always be in their favor, with every calculation they are getting the benefit of the doubt.

We will see how HWEA responds and seek the Board guidance as to what seems fair. We do have most of our ducks in a row in order to posture what ever position the Board wishes us to take.

By adjusting for this one meter this will bring our water loss down from approximately 22.6% to around 15%. This reduction should put us in compliance with the PSC.

Bill Correction Procedure

<u>METER</u>	#	<u>METER</u>	#
T-10		T/T	
5/8	432.7	2	0.8616
3/4	240.3	3	0.5417
1	112.7	4	0.2996
1 1/2	50.0	6	0.0867 <i>Register</i>
2	28.1	8	0.0467
		10	0.0300

T-8		HPT	
5/8	354.4	1 1/2 - 2	1.1389
3/4	242.4	3	2.0945
1	94.6	4	1.4158
1 1/2	35.8	6	0.1359 <i>Meter</i>
2	19.2	8,10, 12	0.1416
		16,20	0.0142

HP Prot.III

6	0.1416
8	0.1137
10	0.1001

To determine the actual water usage when an improper register has been mounted on a meter, use the following formula.

$$\frac{\text{Indicated Usage} \times \text{Revolutions for Register Type}}{\text{Revolutions for Meter Type}} = \text{Actual Usage}$$

240.3 / 112.7

{Multiply usage by # for Register, and divide by # for Meter}

Example: 3" Trident Turbine was on a 5/8" T-10 Disk Meter.

$$2,928,100 \times \frac{0.5417}{432.7} = 3666 \text{ gallons actually used.}$$

(indicated Usage)



NEPTUNE.

Neptune Technology Group Inc. • 1600 Alabama Highway 229 • Tallahassee, AL 36078 • Phone (334) 283-6555 • Fax (334) 283-7497

Fax message

To: <i>James Owen</i>	Location: Tallahassee, Alabama
cc:	Fax: <i>270-886-0708</i>
From: <i>Josh</i> Phone: Fax: 334-283-7497	Date: <i>6/4/04</i>
Subject: <i>Meter Registers</i>	Pages (inc): <i>2</i>

Notice: The information contained in this facsimile is privileged information and may be confidential and is intended only for the use of the individual or entity named above. If the reader of this message is not the intended recipient, please be advised that any dissemination, distribution or copying of the communication is strictly prohibited. If this communication has been received in error, please notify us by telephone and return the facsimile to us at the address above via U.S. Postal Service. Thank You.

Hopkinsville Water Environmental Authority

Master Meter

Highway 272

6-3-04

Test results as found:

Low	152%
Intermediate	158%
High	156%

Test results after strainer cleaned and meter checked for obstructions: Strainer contained small amount of silicon. No other problems noted.

Low	152%
Intermediate	155%
High	153%

Register Face Markings	6 T/ T
	1 94
	2630

Register Cap Serial number	31943595
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Brass Body Casing Serial number	31988603
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Brass Body Markings	6 Neptune HP
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Talked with Neptune in Lexington they think it is the wrong register for this meter.