COMMONWEALTH OF KENTUCKY

BEFORE THE PUBLIC SERVICE COMMISSION

In the matter of:

APPLICATION OF THE GRAYSON COUNTY	**)**	
WATER DISTRICT FOR A CERTIFICATE OF	**)**	
PUBLIC CONVENIENCE AND NECESSITY	**)**	
TO CONSTRUCT AND FINANCE A WATER	**)**	**Case No. 2009 -00238**
IMPROVEMENTS PROJECT PURSUANT TO	**)**	
KRS 278.020 AND 278.300	**)**	

Response to Staff's First Information Request

The Grayson County Water District (the "District"), by counsel, hereby files it's Response to Staff's First Information Request, each response and any accompanying exhibits being prepared by Mr. Kevin Shaw, Manager of the District, as follows:

1. Request No. 1: Provide a narrative explanation of Grayson District's decision to install the 2,500 radio read meters. Include in the explanation all factors leading to Grayson District's decision, including financial, safety, reliability, and operational reasons.

Response: The decision for the District to move to radio read meters was not taken lightly. As a matter of record, the District did a pilot study installing approximately 120 radio read meters in a small reading cycle to explore the possible conversion to AMR meters ("AMRs") technology more than twelve years ago and found the technology had flaws. After about 30 months and seeing sometimes more than a 20% failure rate, the decision was made at that point in time to stay with what the District knew was reliable. This study was carefully monitored by the District and the supplier, and when abandoned, the meters were changed to a touch read system. It should also be mentioned that this study was conducted at no expense to the District, except for labor costs.

In October, 2004, the District once again decided to investigate the feasibility of converting to AMRs and installed around 300 new radio read meters in another complete reading cycle. In February, 2007, this cycle was expanded by an additional 100 meters through some system changes and these meters were changed over to AMRs. In 2007 and 2008, there was a large amount of PSC change out meters in one area of the system and these meters were changed to radio read meters, bringing the total number of AMRs in the system to just under 1,500.

The first reading cycle chosen was picked for the following reasons:

- Its close proximity to the office;
- The tremendous amount of traffic on the road resulted in a serious safety concern for the meter readers pulling in and out of driveways while collecting their meter data; and
- There were several low lying areas that made the meter pits hold water, creating what was considered a detriment to the success of the technology.

The Distict is now almost five years into the first installation of the most recent AMR project and has found that the reliability of the data collection meets or exceeds expectations. There have been times that these meters have been read with no missed reads and they are consistently reading with less than a 1% read failure. When manually proofreading these meters each year, no abnormalities have been found.

Reliability is no longer an issue and it is much safer for the meter readers to drive down the road at 30-35 mph without having to back in and out of driveways. Because safety is an ever growing concern, radio read meters are the best alternative in many cases due to considerations such as rural meters installed in fields with livestock, having to climb over fences, dangerous pull offs

when getting out of a vehicle to obtain a reading, and blind curves. District personnel now have limited exposure to animal issues, such as pet dogs, as well.

The District also examined the operational and financial side of the equation. The financial side of the issue was no doubt the most difficult one to overcome. What finally became the deciding factor was the need to add personnel to the staff to assist with line flushing, leak detection, chlorine monitoring, and preventative maintenance. With the implementation of the DBP rule, the distribution system requires much more attention than ever before. (Refer to Cost Analysis Justification, Section 5 - Exhibits B and C.)

2. Request No. 2: According to its 2008 Annual Report[1] Grayson District is currently serving 6,240 residential and commercial customers. Will Grayson District use the radio read meters to replace the existing meters or will they be used for new service installations only?

a. If Grayson District intends to use the radio read meters to replace existing meters:

(1) If the existing meters are not fully depreciated, explain how Grayson District intends to recover its un-depreciated meter investment.

(2) Given that Grayson District is providing water service to 6,240 customers and is proposing to purchase only 2,500 radio read meters, provide Grayson District's schedule for the replacement of all its existing meters with radio read meters, the anticipated total cost of the replacement project, and a detailed financing plan for the future replacement of the remaining meters with radio read meters.

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[1]Annual Report of Grayson County Water District to the Public Service Commission of the Commonwealth of Kentucky for the Calendar Year Ended December 31, 2008 ("2008 Annual Report") at 27.

b. If the radio read meters are for new services only, explain when or if Grayson District intends to replace all its meters with radio read meters. Include the anticipated time frame for the replacement of all Grayson District's meters, the anticipated total replacement costs, and a detailed financing plan.

Response: Approximately 550 of the 2,500 new radio read meters will be used for the annual PSC change out program. Another 150 will be used for new service installation this year and another 100 are estimated to be used for regular system maintenance. This would leave 1,700 meters to address with the depreciation issue. By using a weighted average and assuming an average age of meter changes at 6.5 years, current meter costs of standard meters (not Radio Read type) are $41.25. With a half life depreciated out, this would leave an unused depreciated dollar amount of $35,062.50. Considering a twelve year bond issue for the new meters and spreading this over that same time period, it would amount to an annual cost of $2,921.87. The left over depreciation amount is non-recoverable, but it is negligible in cost.

At present, the District has approximately 1,500 radio read meters in service, three complete reading cycles, and several in the system are in areas that make readings difficult or dangerous to obtain. After the installation of 2,500 more meters, the District will have nearly 65% of the meters changed over to AMRs.

It is the intention of the District from this day forward to only install radio read style metering. The rest of the change out will be completed as meters are replaced per the regular annual PSC change out schedule, as old meters fail, and as maintenance is accomplished. Any new installations will be radio read as well. All meters should be changed over to AMRs in twelve years time. (See Exhibit A.)

All future meter conversions will be budgeted in the O&M budget and the District anticipates to accomplish this through current rates with meter reading labor savings. Any future rate increases are not expected specific to just the implementing of the AMR program. (See Cost Analysis Justification, Section 5 - Exhibits B and C.)

3. Request No. 3: Refer to the application Exhibit B, the Board of Directors minutes for the January 26, 2009 meeting. According to the statement on page 2, Grayson District is "purchasing an additional 2,500 Itron Radio Read Meters." Identify the number of radio read meters Grayson District has already installed in its system, the dates the meters were installed, the cost of the meter installations, and the manner in which Grayson District financed the radio read meters, and cite the proceeding in which the Commission approved installation of the radio read meters.

Response: The Board minutes in question are relating to the approval for District management to move forward with the process of purchasing the 2,500 meters for which the District is currently seeking funding approval. As previously stated, the District currently has approximately 1,500 radio read meters in service.

The first 300 radio read meters were initially installed in October, 2004. 100 more meters were slowly installed throughout the next 24 months in areas where obtaining readings were difficult. In February, 2007 an additional 100 meters were put in the same area as the first 300. Over a period of two years, another 1,000 were installed in two reading cycles, mostly as a result of annual change out needs.

All of these installations were budgeted through the O&M budget at a combined total cost of $238,344 or $159.74 each.

Commission approval was not sought for the initial meters since they were funded through the regular budget and viewed as a pilot project or regular changes. Additionally no debt was incurred with the installation of the first AMR meters.

4. Request No. 4: Provide additional detail of the expected cost of Grayson District's radio read meter replacement program. Include with the total cost a breakdown between labor costs and the cost of materials. Also include the costs of the required annual customer premise meter inspections. Provide all supporting calculations.

Response: Meter, endpoint, and mobile collector costs are expected to be $363,000. Installation will be accomplished with budgeted in-house labor, estimated at an additional $15,000 in overtime, to accomplish the change out in a timely manner.

Annual premise meter inspections will be completed by the on-staff meter reader at an annual cost of $4,560. This is based on having 4,000 AMR meters in service. This number will change as additional meters are converted over.

Meter Reader Cost/day is $204.80

Vehicle Cost/day $57.92

The Meter Reader will read an average of 200 meters/day. It will cost, on average, $1.31 each to read non-AMR meters.

• 2500 Radio Read Meter Cost	$ 75.00 x 2,500	$ 187,500
• 2500 Endpoint Cost	$ 57.00 x 2,500	$ 142,500
• 1 Mobile Collector	$ 33,000.00	$ 33,000
• Overtime	$ 15,000.00	$ 15,000
Total Cost		**$ 378,000**

***The first AMRs purchased were an average of $159.74 each. Current AMRs will cost $132.00. The District is hopeful that as the technology improves, the cost will either continue to drop or stay fixed.

5. Request No. 5: Has Grayson District performed a cost justification analysis of the proposed radio read meter system?

a. If yes, provide the results of the analysis and all assumptions used.

b. If no, explain whether a cost justification analysis will be performed and, if so, when. If a cost justification analysis will not be performed, explain why an analysis will not be performed.

Response: A cost justification analysis was completed. As expressed before, the change to AMRs was carefully considered and planned. An analysis of cost was completed before proceeding with this new technology. (See Exhibits B and C.)

Exhibit B demonstrates the feasibility of new debt over new personnel, and Exhibit C further strengthens the decision for the conversion by demonstrating that it will also provide cash flow for future meter change outs to AMRs over the next twelve years while leaving a surplus to use in other parts of the system.

6. Request No. 6: Explain whether Grayson District expects that the radio read meter replacement program will cause Grayson District to increase rates sooner than would be required if the radio read program were not in place. If the need for a rate increase is expedited by the radio read meter program, provide an estimate of the impact upon the need for a rate increase.

Response: The cost analysis as attached in Exhibit B has demonstrated that the change to radio read meters is the fiscally responsible move to make. The AMR technology has

proven to be reliable. The change is going to make the reading of water meters safer than ever before, and since personnel is the District's most valuable resource, there is not a value that can be placed on this factor. The operational benefits of the tamper detection application, as well as customer leak detection, will enable the District to provide a service to the customers that has never before been available.

An increase in rates will not be sought as a direct result of this new debt. The cost of reading meters in the future will only be reduced as the rest of the meters are changed over to AMRs. Even with the addition of meters to the system, reading cost will not increase. Once all the meters are converted, the number of readings that can be collected in the same area traveled will become unlimited. The only additional reading expense is the annual premise inspection.

The District will be reviewing the cost of new customer installations as the current volatility of materials stabilize and will decide if these costs will need to be adjusted.

7. Request No. 7: Provide the total number of meters, by customer classification, that Grayson District plans to replace each year until the replacement program is complete. Include with the response the total number of meters within each customer classification.

Response: Total number of meters, by customer classification, are listed in the following chart:

NON ERT WATER METER TEST YEARS

Year	Residential	Commercial	Agricultural	Wholesale	Total
2010	428	15	2	0	445
2011	65	4	0	0	69
2012	164	11	2	0	177
2013	229	9	0	0	238
2014	76	7	0	1	84
2015	349	5	5	0	359
2016	148	11	4	0	163
2017	98	3	0	0	101
2018	428	33	2	0	463
2019	97	10	2	0	109
2020	119	3	2	0	124
2021	110	16	0	1	127
2022	1	1	0	0	2
	2,312	128	19	2	2,462

8. Request No. 8: Explain whether Grayson District plans to use a competitive bidding process when purchasing the necessary radio read equipment. Include in the explanation a discussion of the bidding process to be used.

Response: The competitive bidding process will be used and request for proposals have already been sought. An advertisement was placed in the local paper (see Exhibit B in the original Application). With the District already having endpoints of a particular brand (Itron), the endpoint specked could not be negotiable, however, there was flexibility on the meter itself. Four suppliers returned quotes on three different meter types, and three suppliers returned quotes on the Iron endpoints. The bids received are attached.

It should be noted that in areas where WRECC and the District service the same customers, the reading of both meters simultaneously is being utilized, compounding the savings for data collection of meter reads. There is one rural cycle where over 1,900 collective meters can be read in an eight hour period.

It is expected that when the entire change out is complete, there will be approximately 2,800 homes where the water and electric readings can be collected at the same time, by a common mobile collector.

9. Request No. 9: Provide Grayson's best estimate of the annual cost of meter reading, meter turn-ons and turn-offs, depreciation expense, and any other expenses that will be eliminated with the implementation of its radio read program. Include all labor savings (including employee benefits), mileage or vehicle savings, and other savings expected through elimination of monthly meter readings at the customers' premises. Provide all calculations and workpapers needed to dreive the estimated annual cost and documentation to support the estimated depreciation lives.

Response: It is the District's intent in the future to accomplish the reading of all meters with one staff member. With the installation of the 2,500 AMRs, and all future meters being the radio read type, it is the District's belief that one person can read the meters, complete annual change outs, accomplish the testing of small meters, and oversee the testing of all the larger field test meters.

There will not be any change in annual cost of turn-ons and turn-offs with the deployment of this style of AMRs.

How the depreciation will be handled will not change, however, it will become a larger number due to the increased cost over regular meters.

Currently the District utilizes two people to read meters at an annual combined cost of $106,496. After the implementation of these proposed 2,500 meters, one person will be moved from meter reading to other system duties. This will result in an annual personnel savings of $53,240, as far as meter reading is concerned. There will be an annual vehicle cost saving of $15,061.20. The

cost justification analysis shows that the new debt is a fixed cost for twelve years, while labor costs are much more volatile and will certainly increase over time, further spreading the gap on the affordability of the change.

Currently meter readers' benefits are at 60% of their salary. Therefore, a reader making an hourly wage of $16.00 at 2,080 hours a year will cost the District $53,240 annually. Total savings of labor and vehicle costs are $68,301.20. Annual cost of the new debt is $39,788.

TRUCK	COST PER MONTH	COST PER YEAR
WD6 REPAIRS AUGUST 2007	$160.29	$1,923.48
GAS AUGUST 2007	$667.80	$8,013.60
DEPRCIATION	$494.00	$5,928.00
TOTAL COST PER YEAR TRUCK		$15,865.08
WD8 REPAIRS AUGUST 2007	$160.12	$1,921.44
GAS AUGUST 2007	$514.66	$6,175.92
DEPRCIATION	$513.33	$6,159.96
TOTAL COST PER YEAR		$14,257.32
AVERAGE TRUCK COST PER YEAR		$15,061.20

10. Request No. 10:

a. If Grayson District encounters a problem with a radio read meter, will the unit be repaired or replaced?

b. If the radio read meter can be repaired, provide a cost estimate of the repair. Include copies of all workpapers, assumptions, and calculations used to derive the estimate.

c. Provide any warranty that the manufacturer, Itron, has on the radio read meters.

Response: With the ITRON 60W Remote Endpoint there is a full ten (10) year complete warranty, then an additional ten (10) year prorated warranty, for a total twenty (20) year warranty. The meters will be a Badger Model 25 Recordall, 5/8 x 3/4, and they are warranted for fifteen (15) years (see Exhibit D attached hereto).

It is expected that the complete unit will give service for its anticipated life, which in the District's case is approximately 13 years. It is also expected that the technology will change so quickly that the actuality of either the meter or endpoint ever being used past the normal PSC change out period is little or none, as is the case with most any technology of this kind.

Since the meter is warranted for what the District anticipates is its full life in the system, no assumptions have been made as to repairs. With the warranty on the endpoint being at a total of twenty years, and the meter and register having a fifteen year warranty, all repairs except the labor cost of pulling and reinstalling will be born by the supplier.

The undersigned, Counsel to the District, hereby certifies that the above Responses to Staff's First Information Request were prepared by the undersigned on behalf of the District, and that each Response is true and accurate to the best of my knowledge, information and belief formed after a reasonable inquiry. Dated this September 29, 2009.

Rubin & Hays

By _____

W. Randall Jones
Kentucky Home Trust Building
450 South Third Street
Louisville, Kentucky 40202
(502) 569-7525

EXHIBIT A

NON ERT WATER METER TEST YEARS

Year	Residential	Commercial	Agricultural	Wholesale	Total	Cost/ Year	Cost above normal meter
2010	428	15	2	0	445	$ 58,740.00	$ 40,272.50
2011	65	4	0	0	69	$ 9,108.00	$ 6,244.50
2012	164	11	2	0	177	$ 23,364.00	$ 16,018.50
2013	229	9	0	0	238	$ 31,416.00	$ 21,539.00
2014	76	7	0	1	84	$ 11,088.00	$ 7,602.00
2015	349	5	5	0	359	$ 47,388.00	$ 32,489.50
2016	148	11	4	0	163	$ 21,516.00	$ 14,751.50
2017	98	3	0	0	101	$ 13,332.00	$ 9,140.50
2018	428	33	2	0	463	$ 61,116.00	$ 41,901.50
2019	97	10	2	0	109	$ 14,388.00	$ 9,864.50
2020	119	3	2	0	124	$ 16,368.00	$ 11,222.00
2021	110	16	0	1	127	$ 16,764.00	$ 11,493.50
2022	1	1	0	0	2	$ 264.00	$ 181.00
	2,312	128	19	2	2,461	$ 324,852.00	$ 222,720.50

(The above assumptions do not take in consideration any increase in cost.)

EXHIBIT B

COST JUSTIFICATION ANALYSIS

COST INCURRED FOR ADDITIONAL EMPLOYEE TO READ					
YEAR	HOURLY WAGE	ANNUAL WAGES	ANNUAL WAGES & BENEFITS	ANNUAL PAYMENT ON AMR METERS	SAVINGS PER YEAR
2010	$ 16.00	$ 33,280.00	$ 53,248.00	$ 43,166.92	$ 10,081.08
2011	$ 17.00	$ 35,360.00	$ 56,576.00	$ 37,343.76	$ 19,232.24
2012	$ 18.00	$ 37,440.00	$ 59,904.00	$ 41,568.76	$ 18,335.24
2013	$ 19.00	$ 39,520.00	$ 63,232.00	$ 35,638.76	$ 27,593.24
2014	$ 20.00	$ 41,600.00	$ 66,560.00	$ 39,863.76	$ 26,696.24
2015	$ 20.60	$ 42,848.00	$ 68,556.80	$ 38,933.76	$ 29,623.04
2016	$ 21.22	$ 44,133.44	$ 70,613.50	$ 38,003.76	$ 32,609.74
2017	$ 21.85	$ 45,457.44	$ 72,731.91	$ 42,073.76	$ 30,658.15
2018	$ 22.51	$ 46,821.17	$ 74,913.87	$ 40,901.26	$ 34,012.61
2019	$ 23.19	$ 48,225.80	$ 77,161.28	$ 39,641.26	$ 37,520.02
2020	$ 23.88	$ 49,672.58	$ 79,476.12	$ 38,337.50	$ 41,138.62
2021	$ 24.60	$ 51,162.75	$ 81,860.40	$ 41,990.00	$ 39,870.40
TOTALS		$ 515,521.18	$ 824,833.89	$ 477,463.26	$ 347,370.63

***TOTAL COST DIFFERENCE USING AMR METERS.	$ (270,245.86)
TOTAL SAVINGS USING AMR VS. NEW EMPLOYEE EXPENSE	$ 347,370.63
ADDITIONAL COST TO READ NEW SERVICES W/REGULAR METERS	$ 129,145.91
NET GAIN OVER A 12 YEAR PERIOD	$ 206,270.68

NOTE: Payment schedule presented is from a proposal presented by Morgan & Keegan based on recent bond sales and using a quote for 2500 new meters at a total cost of $380,000.

2010	6200	0.537634
2011	6325	0.527009
2012	6450	0.516796
2013	6575	0.506971
2014	6700	0.497512
2015	6825	0.4884
2016	6950	0.479616
2017	7075	0.471143
2018	7200	0.462963
2019	7325	0.455063
2020	7450	0.447427
2021	7575	0.440044

EXHIBIT C

COST JUSTIFICATION ANALYSIS

YEARLY REPLACEMENT COST COMPARISON REGULAR METER TO RADIO READ METER						YEARLY COST FOR EST. NEW SERVICES REGULAR METER TO RADIO READ METER					
YEAR	METER CHANGES / YEAR	COST PER REGULAR METER	TOTAL COST OF REGULAR METERS PER YEAR	COST PER RADIO READ METER	TOTAL COST PER YEAR	EST. NEW SERVICES PER YEAR	ADDITIONAL COST TO READ NEW SERVICES (REGULAR)	COST OF ADDITIONAL REGULAR METERS PER YEAR	TOTAL ADDITIONAL COST OF REGULAR METERS PER YEAR	ADDITIONAL TO READ NEW SERVICES (AMR)	TOTAL COST OFADDITONAL AMR METERS PER YEAR
2010	428	$ 42.48	$ 18,181.44	$132.00	$ 56,496.00	125	$ 1,443.75	$ 5,310.00	$ 6,753.75	$ -	$ 16,500.00
2011	65	$ 43.75	$ 2,844.04	$135.96	$ 8,837.40	125	$ 2,974.13	$ 5,469.30	$ 8,443.43	$ -	$ 16,995.00
2012	164	$ 45.07	$ 7,390.99	$140.04	$ 22,966.36	125	$ 4,550.41	$ 5,633.38	$ 10,183.79	$ -	$ 17,504.85
2013	229	$ 46.42	$ 10,629.96	$144.24	$ 33,030.95	125	$ 6,173.99	$ 5,802.38	$ 11,976.37	$ -	$ 18,030.00
2014	76	$ 47.81	$ 3,633.68	$148.57	$ 11,291.10	125	$ 7,846.27	$ 5,976.45	$ 13,822.72	$ -	$ 18,570.90
2015	349	$ 49.25	$ 17,186.84	$153.02	$ 53,405.44	125	$ 9,568.72	$ 6,155.75	$ 15,724.46	$ -	$ 19,128.02
2016	148	$ 50.72	$ 7,507.05	$157.61	$ 23,327.01	125	$ 11,342.84	$ 6,340.42	$ 17,683.26	$ -	$ 19,701.86
2017	98	$ 52.25	$ 5,120.01	$162.34	$ 15,909.65	125	$ 13,170.19	$ 6,530.63	$ 19,700.82	$ -	$ 20,292.92
2018	428	$ 53.81	$ 23,031.70	$167.21	$ 71,567.44	125	$ 15,052.36	$ 6,726.55	$ 21,778.91	$ -	$ 20,901.71
2019	97	$ 55.43	$ 5,376.40	$172.23	$ 16,706.32	125	$ 16,990.99	$ 6,928.35	$ 23,919.34	$ -	$ 21,528.76
2020	119	$ 57.09	$ 6,793.66	$177.40	$ 21,110.24	125	$ 18,987.78	$ 7,136.20	$ 26,123.98	$ -	$ 22,174.62
2021	110	$ 58.80	$ 6,468.25	$182.72	$ 20,099.08	125	$ 21,044.48	$ 7,350.28	$ 28,394.76	$ -	$ 22,839.86
TOTAL	2311		$ 114,164.03		$354,746.98	1500	$129,145.91	$ 75,359.68	$204,505.58	$ -	$ 234,168.49
TOTAL COST DIFFERENCE REG VS AMR METER					**$240,582.95**	**TOTAL COST DIFFERENCE REG VS AMR METER**					$ 29,662.90

***TOTAL COST DIFFERENCE USING AMR METERS.	$ 270,245.86

ITR-W-6
11-08

Badger Meter

Badger Meter System Warranty For ADE with 60W Endpoint ADE with 60W Remote Endpoint

This warranty shall apply to the ADE with 60W Endpoint or ADE with 60W Remote Endpoint (cumulatively "Product"), sold on or after November 1, 2008. This warranty is extended only to utilities, municipalities, other commercial users and authorized Badger Meter, Inc. ("Badger®") distributors, hereafter referred to as "Customer" and does NOT apply to consumers.

MATERIALS AND WORKMANSHIP

Badger warrants Product to be free from defects in materials and workmanship appearing within the earlier of either: Twenty (20) years after installation; or twenty (20) years and six (6) months after shipment from Badger. Specifically, Badger will repair or replace, at Badger's discretion, a 60W or 60WP Endpoint or Endpoint Battery at no cost during the first ten (10) years of the warranty, and at prorated price discounts during the last ten (10) years of the warranty. Badger will apply these prorated price discounts to Product list prices in effect at the time of Product return and according to the following prorated price discount schedule: Years 11 through 15 -- 50% discount; Years 16 through 20 – 25% discount.

PRODUCT RETURNS

Product failures must be proven and verified to Badger's satisfaction. Badger's obligation hereunder shall be limited to such repair and replacement and shall be conditioned upon Badger's receiving written notice of any alleged defect within ten (10) days after its discovery. This exclusive remedy shall not be deemed to have failed its essential purpose so long as Badger is willing and able to replace defective Product to Customer within a reasonable time after receipt of proof that a defect is involved. Product returns must be shipped by the Customer prepaid F.O.B. to the nearest Badger factory or distribution center. The Customer shall be responsible for all direct and indirect costs associated with removing original product and reinstalling the repaired or replacement Product.

LIMITS OF LIABILITY

This warranty shall not apply to Product repaired or altered by any party other than Badger. The foregoing warranty applies only to the extent that the Product is installed, serviced and operated strictly in accordance with Badger's instructions. The warranty shall not apply and shall be void with respect to Product exposed to conditions other than those detailed in Product technical literature and Installation and Operation Manuals (IOM), or which have been subject to vandalism, negligence, accident, acts of God, improper installation, operation or repair, alteration, or other circumstances which are beyond Badger's reasonable control. With respect to equipment and parts not manufactured by Badger, the warranty obligations of Badger shall in all respects conform and be limited to the warranty extended to Badger by the supplier.

THE FOREGOING WARRANTIES ARE EXCLUSIVE AND IN LIEU OF ALL OTHER EXPRESS AND IMPLIED WARRANTIES WHATSOEVER, INCLUDING BUT NOT LIMITED TO IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE (except warranties of title).

Any description of the Products, whether in writing or made orally by Badger or Badger's agents, specifications, samples, models, bulletins, drawings, diagrams, engineering sheets or similar materials used in connection with any Customer's order are for the sole purpose of identifying the Products and shall not be construed as an express warranty. Any suggestions by Badger or Badger's agents regarding use, application, or suitability of the Products shall not be construed as an express warranty unless confirmed to be such in writing by Badger.

Exclusion of Consequential Damages and Disclaimer of Other Liability. Badger's liability with respect to breaches of the foregoing warranty shall be limited as stated herein. Badger's liability shall in no event exceed the contract price. **BADGER SHALL NOT BE SUBJECT TO AND DISCLAIMS: (1) ANY OTHER OBLIGATIONS OR LIABILITIES ARISING OUT OF BREACH OF CONTRACT OR OF WARRANTY, (2) ANY OBLIGATIONS WHATSOEVER ARISING FROM TORT CLAIMS (INCLUDING NEGLIGENCE AND STRICT LIABILITY) OR ARISING UNDER OTHER THEORIES OF LAW WITH RESPECT TO PRODUCTS SOLD OR SERVICES RENDERED BY BADGER, OR ANY UNDERTAKINGS, ACTS OR OMISSIONS RELATING THERETO, AND (3) ALL CONSEQUENTIAL, INCIDENTAL, AND CONTINGENT DAMAGES WHATSOEVER.**

Due to continuous research, product improvements and enhancements, Badger Meter reserves the right to change product or system specifications without notice, except to the extent an outstanding contractual obligation exists.

Badger Meter Inc., 4545 W. Brown Deer Road, P.O. Box 245036, Milwaukee, Wisconsin 53224-9536

RD-W-1
4-08

Badger Meter

Limited Water Warranty for Disc Meters

This warranty shall apply to all Recordall® Bronze Disc Meters, models 25 through 170 when used to measure potable water; and the registers, generators, and encoders used with these meters (collectively "Product") sold on or after March 1, 2008. This warranty is extended only to utilities, municipalities, other commercial users and authorized Badger Meter, Inc. ("Badger®") distributors, hereafter referred to as "Customer" and does NOT apply to consumers.

Badger warrants product to be free from defects in materials and workmanship appearing within the earlier of the following timeframes:

Thirty (30) years after installation; or thirty (30) years and six (6) months after shipment from Badger.

Twenty-five (25) years after installation; or twenty-five (25) years and six (6) months after shipment from Badger.

Ten (10) years after installation; or ten (10) years and six (6) months after shipment from Badger.

Five (5) years after installation; or five (5) years and six (6) months after shipment from Badger.

Fifteen (15) years after installation; or fifteen (15) years and six (6) months after shipment from Badger.

One (1) year after installation; or one (1) year and six (6) months after shipment from Badger.

The meter product will meet or exceed new meter accuracy standards set forth in AWWA Standard C700-02 for the following periods:

Model 25 Recordall 5/8" and 5/8" x 3/4"
Five (5) years from date of shipment or registration of 750,000 gallons, whichever occurs first.

Model 35 Recordall 3/4"
Five (5) years from date of shipment or registration of 750,000 gallons, whichever occurs first.

Model 55 Recordall 1"
Five (5) years from date of shipment or registration of 1,000,000 gallons, whichever occurs first.

Model 70 Recordall 1"
Five (5) years from date of shipment or registration of 1,100,000 gallons, whichever occurs first.

Model 120 Recordall 1-1/2"
Two (2) years from date of shipment or registration of 1,600,000 gallons, whichever occurs first.

Model 170 Recordall 2"
Two (2) years from date of shipment or registration of 2,100,000 gallons, whichever occurs first.

The meter product will meet or exceed repaired meter accuracy standards set forth in AWWA Manual M-6, Chapter 5 (1999) Table 5.3 for the following periods:

Model 25 Recordall 5/8" and 5/8" x 3/4"
Fifteen (15) years from date of shipment or registration of 2,500,000 gallons, whichever occurs first, with a 25 gpm safe maximum operating capacity and a 15 gpm maximum rate for continuous operation.

Model 35 Recordall 3/4"
Fifteen (15) years from date of shipment or registration of 2,500,000 gallons, whichever occurs first, with a 35 gpm safe maximum operating capacity and a 25 gpm maximum rate for continuous operation.

Model 55 Recordall 1"
Fifteen (15) years from date of shipment or registration of 3,000,000 gallons, whichever occurs first, with a 55 gpm safe maximum operating capacity and a 40 gpm maximum rate for continuous operation.

Model 70 Recordall 1"
Fifteen (15) years from date of shipment or registration of 3,250,000 gallons, whichever occurs first, with a 70 gpm safe maximum operating capacity and a 50 gpm maximum rate for continuous operation.

Model 120 Recordall 1-1/2"
Fifteen (15) years from date of shipment or registration of 5,600,000 gallons, whichever occurs first, with a 120 gpm safe maximum operating capacity and a 80 gpm maximum rate for continuous operation.

Model 170 Recordall 2"
Fifteen (15) years from date of shipment or registration of 10,400,000 gallons, whichever occurs first, with a 170 gpm safe maximum operating capacity and a 100 gpm maximum rate for continuous operation.

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