

COMMONWEALTH OF KENTUCKY  
BEFORE THE PUBLIC SERVICE COMMISSION

In the Matter of:

APPLICATION OF HARDIN COUNTY WATER	)	
DISTRICT NO. 1 REQUESTING DEVIATION	)	CASE NO.
FROM REGULATIONS RELATED TO WATER	)	2008-00402
METER ACCURACY AND TESTING	)	
REQUIREMENTS	)	

O R D E R

On September 8, 2008, Hardin County Water District No. 1 (“Hardin District”) filed a request to deviate from 807 KAR 5:066, Section 15(2), so that it may use an electromagnetic flow meter (“EFM”) to measure the sale of water to its wholesale customers. Section 15(2) of 807 KAR 5:066 provides for testing procedures to determine the accuracy of meters, but it does not address EFMs. Section 18 of 807 KAR 5:066 enables the Commission to permit a deviation from that regulation if good cause is shown.

In Case No. 2003-00480,<sup>1</sup> the Commission granted Hardin District a temporary deviation from our regulations which permitted Hardin District to utilize EFMs for that same purpose. In that case, Hardin District asserted that the EFM would provide equal or better accuracy than mechanical meters and would reduce the expenses to the utility. In order to demonstrate the reliability of EFMs, Hardin District proposed to perform a

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<sup>1</sup> Case No. 2003-00480, *Application of Hardin County Water District No. 1 Requesting Deviation from Regulations Related to Water Meter Accuracy and Testing Requirements* (Ky. PSC June 4, 2004).

drawdown test from the Pirtle WTP clearwell, measuring depth (volume) and time to compute flow rate and total volume; use a portable time-transit flow meter upstream of the proposed finished water EFM to compare the flows of both meters; and measure a number of selected parameters in the flow sensor and signal converter which affect the integrity and accuracy of the flow measurement. The Commission granted a temporary deviation in order to enable Hardin District to demonstrate the EFM's reliability.

In the current proceeding before the Commission, Hardin District has filed a report drafted by a licensed engineer which reflects the testing results of the EFM. The test results demonstrate that, after the meter was calibrated, its accuracy ranged from 98.22 percent to 101.16 percent based on the time-transit flow meter tests and 98.81 percent to 104.85 percent based on the clearwell drawdown tests.<sup>2</sup>

With the exception of one out of 18 tests made after calibrating the meter, all the results were within the accuracy limits of a 12-inch propeller meter, as provided for in 807 KAR 5:066, Section 15(2)(a). Accordingly, the Commission finds that Hardin District has demonstrated the suitability and accuracy of EFMs. We, therefore, find that Hardin District has established good cause to deviate from 807 KAR 5:066, Section 15(a), and should be permitted to use EFMs to measure the sale of water to its wholesale customers.

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<sup>2</sup> The Commission recognizes that, in reality, accuracy cannot exceed 100 percent. Our regulations set accuracy standards as a percentage of the water registered to the actual flow through a meter. For example, if a meter registers 10,000 gallons during a test and 10,200 gallons actually passed through the meter, it would be considered to have an accuracy of 98 percent. Conversely, if a meter registers 10,000 gallons during a test and 9,800 gallons actually passed through the meter, it would be considered to have an accuracy of 102 percent.

The Commission notes that our findings do not alleviate the utility's responsibility of periodic testing under 807 KAR 5:066, Section 16. Hardin District shall continue to test its EFMs in accordance with the table in Section 16(1), and it shall ensure that the accuracy of its EFMs falls within the comparative limits<sup>3</sup> listed in Section 15(a).

IT IS THEREFORE ORDERED that:

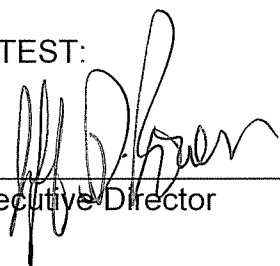
1. Hardin District is granted permission to deviate from 807 KAR 5:066, Section 15, in order to use an EFM to measure the sale of water to its wholesale customers.

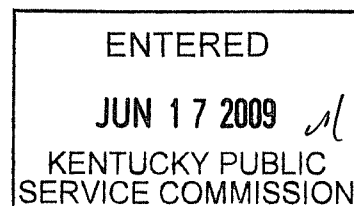
2. Hardin District shall test its EFMs periodically in accordance with 807 KAR 5:066, Section 16, and shall ensure that the EFMs' accuracy is within the comparative limits for other types of meters listed in Section 15(a).

Nothing contained herein shall limit the authority of the Commission to review the appropriateness of utilizing an EFM approved herein at any time during the period that it is in service.

By the Commission

ATTEST:

  
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Executive Director



<sup>3</sup> By "comparative limits," we mean that the test results should be within the accuracy limits of a different type of meter with similar testing standards. For example, Hardin District tested its 12-inch EFM at rates ranging from approximately 1,550 gallons per minute to approximately 2,100 gallons per minute. The meter standards identified in 807 KAR 5:066, Section 15(a), for a 12-inch meter with those flow rates are for propeller meters, and our regulations require an accuracy of between 98 percent and 102 percent for 12-inch propeller meters.

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