**Section 501.190 Rotary Meters**

a) A utility shall install all rotary meters or revisions to existing rotary meter sets in accordance with the recommendations of ANSI B109.3, XQ0010 (June 2000).

b) A utility furnishing gas service through a rotary meter shall verify that the meter's accuracy meets the requirements of Section 501.170(a) before placing the meter in service.

1) A utility may rely on the manufacturer's factory accuracy test to demonstrate that a new rotary meter meets the Section 501.170(a) requirements only if the utility also conducts quality assurance reviews on its new rotary meters.

2) A utility that conducts quality assurance reviews must group the new meters into meter lots consisting of the same size and manufactured under the same conditions. The utility must then sample test these lots in accordance with a single sample plan for normal inspection, Inspection Level II, of ANSI/ASQ Z1.4-2008 using an acceptable quality level not to exceed 1.0%.

3) In the event that a meter lot fails, the utility must either return the meters to the manufacturer or test all of the meters in the lot to verify compliance with Section 501.170(a).

4) A utility shall retain a record of a meter's accuracy test for the life of the meter.

c) A utility shall differential test an in-service rotary type positive displacement meter at least every 60 months. If the meter's pressure differential for a given flow rate is more than 50% higher than the utility's initial differential test or the factory published differential curve, a utility shall return the differential to a value below the 50% limit. If the utility cannot return the meter's differential to below the 50% limit, the utility shall clean and retest the rotary meter within 7 days and, if the meter's pressure differential is still more than 50% higher than the utility's initial differential test or the factory published differential curve, the utility will replace the meter within 60 days. If the meter is of sufficient size that portions of a customer's structure require modification to remove the meter, then the utility will replace the meter within 90 days unless the utility and customer agree to a longer period, not to exceed 180 days.

d) If a utility documents conditions at the meter that prevent the utility from obtaining a differential reading from the meter, then the utility may delay verification until those conditions cease to exist or for four months, whichever is shorter. If a utility delays verification, it shall maintain for three years documentation of the conditions that prevented verification within the required 60 months and provide the documentation to an authorized representative of the Commission when requested.

e) In lieu of the differential test requirement in subsection (c), a utility may conduct an accuracy test of a rotary meter. The average accuracy of a rotary meter is determined by averaging the accuracy of the check and open flow rates.

1) The check rate is 10% to 33% of the meter's rated capacity.

2) The open rate is 60% to 105% of the meter's rated capacity. The utility may substitute the proving equipment's maximum capacity for the open flow rate if the meter's required testing volume exceeds the utility's testing equipment's capacity.

f) A utility shall maintain the most recent 10 years of inspection records, as well as the dates of all inspections of rotary meters.

(Source: Amended at 41 Ill. Reg. 351, effective December 29, 2016)