**Section 501.200 Turbine Meters**

a) A utility furnishing natural gas service with turbine meters shall install new turbine meters or revisions to existing meter sets in accordance with the recommendations contained in AGA Report No. 7, Measurement of Natural Gas by Turbine Meters, XQ0601 (February 2006).

b) A utility shall accuracy test a turbine meter at least every 60 months.

1) A utility shall atmospherically test the accuracy of a turbine meter with an operating pressure not exceeding 25 psi at a minimum of four different flow rates of not less than 10% of meter capacity and not more than 105% of the meter capacity.

2) A utility shall accuracy test turbine meters with an operating pressure exceeding 25 psi at the expected operating pressure of the meter installation using at least five flow rates of not less than 10% of meter capacity and no more than 105% of the meter capacity. A utility may install a turbine meter at a location where the operating pressure falls within the range of 50% less than or two times greater than the pressure of the meter's accuracy test. For example, a turbine meter that was accuracy tested at 100 psi is acceptable for delivery pressures from 50 psi (50% of 100) through 200 psi (2 x 100).

3) A utility may accuracy test its turbine meters in natural gas or air. A utility that conducts accuracy tests with air shall account for the Reynolds number equivalence as set forth in AGA Report No. 7, Measurement of Natural Gas by Turbine Meters, Appendix E, XQ0601 (February 2006).

4) When tested at the expected delivery pressure of the in-service location, a turbine meter shall demonstrate a tested accuracy within ±1.0% of the accuracy shown over the manufacturer's entire published flow range.

c) A utility furnishing natural gas service with a dual rotor turbine meter that has an external means of verifying meter accuracy may extend the accuracy test requirement to at least every 120 months if the utility can demonstrate that it verifies the accuracy of the meter at least every six months and that the meter's performance meets the manufacturer's guidelines.

d) A utility shall spin test and, if necessary, lubricate its turbine meters at least every 12 months. If a turbine meter is not equipped with external lubrication provisions or external means of verifying the operation of the meter, a utility shall spin test the meter every six months. If the turbine meter's spin time is not equal to or greater than the minimum spin time specified by the manufacturer, the utility shall make corrections to the meter to allow the spin time to equal or exceed the manufacturer's specifications.

e) A utility is not required to conduct a spin test of its dual rotor turbine meter if the utility furnishes natural gas service with a dual rotor turbine that has an external means of verifying rotor health, the utility can demonstrate that it verifies the health of the rotor at least every six months, and the utility can demonstrate the performance of the rotor meets the manufacturer's guidelines.

f) A utility shall maintain the most recent five years of inspection records, as well as the dates of all inspections for the most recent 10 years, except accuracy tests. A utility shall maintain documents for each turbine meter's most recent accuracy test, the prior accuracy test, and the dates of any other accuracy test that occurred during the prior 10 years.

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