# AGA Report No. 7

# Measurement of Natural Gas by Turbine Meters

Revised February 2006

Prepared by

Transmission Measurement Committee



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Catalog # XQ0601

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### FOREWORD

This report is published in the form of a performance-based specification for turbine meter for natural gas flow measurement. It is the result of collaborative effort of natural gas users, turbine meter manufacturers, flow measurement research organizations and independent consultants forming Task Group R-7 of AGA's Transmission Measurement Committee (TMC). In addition, comments to this report were made by the Committee on Gas Flow Measurement (COGFM) of the American Petroleum Institute (API).

Research conducted in support of this report and cited herein has demonstrated that turbine meters can accurately measure natural gas and, therefore, should be able to meet or exceed the requirements specified in this report when calibrated and installed according to the recommendations contained herein. Users should follow appropriate installation, use and maintenance of turbine meter as applicable in each case.

This version of AGA Report No. 7 is intended to supersede all prior versions of this document. However, this document does not reference existing turbine meter installations. The decision to apply this document to existing installations shall be at the discretion of the parties involved.

Appendix B of this report contains the equations needed to convert volume measured at actual (line) conditions to equivalent volume at base conditions, or to mass. These equations may be used to perform such calculations with any type of positive displacement or inferential meter that registers in units of volume.

#### ACKNOWLEDGEMENTS

Report No. 7, *Measurement of Natural Gas by Turbine Meters*, was developed by a Task Group of the American Gas Association's Transmission Measurement Committee. Individuals who made substantial contributions to the creation of this document are:

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AGA acknowledges the contributions of the above individuals and thanks them for their time and effort in getting this document revised.

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