



Eric Kelner, P.E.
Vice President
Transmission & Distribution

Education:

M.S. Systems Engineering
Southern Methodist University
Dallas, Texas

B.S. Mechanical Engineering
University of Utah
Salt Lake City, Utah

Expertise:

Flow Facility Design & Ops
Accuracy Estimates
Gas Properties

Field Studies
Statistical Analysis
System Balance

Calibration and Traceability
Data Analysis
Measurement Training

Experience:

Flow Measurement Specialist, The Letton-Hall Group – July 2007 to Present.

- Providing flow measurement consulting services including: system design, meter station assessment, measurement standards/practices development, technology evaluation, system balance analysis, project management and training program development.

Group Leader and Sr. Research Engineer, Southwest Research Institute (SwRI), San Antonio, Texas – June 1997 to July 2007.

- Managed the Metering Research Facility. Clients included users and manufacturers of all types of natural gas flow meters. Advised clients during dispute resolution. Assisted with BLM type approval using standardized testing protocols. Designed reference meter systems. Conducted field studies and design assessments.
- Managed the Gas Technology Institute Transmission Measurement Research Program. The program focused on sources of error in flow rate and fluid property measurement for all types of flow meters. Participated in the development of AGA Reports 3, 5, 7, 9, and 11, API MPMS Chapter 14.1 and GPA Standard 2166.
- Directed the development and commercialization of a new-generation gas quality measurement device.
- Managed a research project that identified causes of errors in natural gas sampling and gas quality determination.
- Investigated the effect of flow conditioner placement on the orifice meter discharge coefficient.

Flow Measurement Engineer, Questar Pipeline, Salt Lake City, Utah - August 1994 to June 1997.

- Company expert on issues related to flow measurement.

Licensing and Professional Affiliations:

- Registered Professional Engineer (Texas)
- Southern Gas Association
- American Gas Association
- American Petroleum Institute
- Instructor for the International School of Hydrocarbon Measurement, the American School of Gas Measurement Technology and the Appalachian Gas Measurement Short Course.

Patents:

- **U.S. Patent No. 6,823,716:** *Device for Precision Measurement of Speed of Sound in a Gas*
- **U.S. Patent No. 7,398,160:** *Gas Energy Meter for Inferential Determination of Thermophysical Properties of a Gas Mixture at Multiple States of the Gas*

Honors:

- **American Gas Association:** *Bronze Award of Merit*
- **American Petroleum Institute:** *Award for Meritorious Service*

Representative Publications:

Looking Ahead to a Needed Scenario, **E. Kelner**, Pipeline & Gas Journal, January 2008.

Joint Measurement Knowledge Base Needed, **E. Kelner**, Pipeline & Gas Journal, May 2008.

Pipeline Modeling Improves Measurement and Control – Provides Insight to Location of Liquids, **E. Kelner**, Ayala L.H., Garcia-Hernandez A., Pipeline & Gas Journal, July 2007.

API MPMS Chapter 22.2 Verification and Testing Protocol for Differential Flow Meters, R. Burkey, **E. Kelner**, E. Reid, Pipeline & Gas Journal, July, 2006

Uncertainties in Natural Gas Properties Determined by Gas Chromatography, D.L. George, **E. Kelner**, 6th International Symposium on Fluid Flow Measurement, Queretaro, QRO, Mexico, May 15-18, 2006.

Development of a Low Cost Inferential Natural Gas Energy Flow Rate Prototype Retrofit Module, **E. Kelner**, et al., U.S. Department of Energy Report Covering 2002-2005, DOE Cooperative Agreement No. DE-FC21-96MC-33033.

Compact Orifice Meter Station Project, **E. Kelner**, T.B. Morrow, 4th International Symposium on Fluid Flow Measurement, June 27-30, 1999, Denver, CO.

The Critical Details of Good Gas Sampling Technique, **E. Kelner**, Paper 99-OP-035, 1999 AGA Operations Conference, Cleveland, Oh.

Orifice Meter Installation Effects: Effect of Variable Spacer Length Between Two 90 Degree Ells Out-of-Plane, T.B. Morrow and **E. Kelner**, Paper 98-OP-038, 1998 AGA Operations Conference, Seattle, Wa.