



April 11, 2013

AOGCC Industry Guidance Bulletin 13-002
Custody Transfer Meter Application Guidance

20 AAC 25.228(b)-(f) broadly establish what is required for a custody transfer meter application. The application must be approved by AOGCC **before installation** of the meter system. An application should include the following information (as appropriate):

General Information

- Description of the project; design and expected production rate, temperature, and pressure
- Analysis of the produced fluid stream (oil/water/gas)
- Ownership and physical location of meter in relation to lease/unit boundary
- Flow diagram (or P&ID) of the measurement system
- Meter prove/calibration frequency
- Planned date for installing the custody transfer meter system

API Manual of Petroleum Measurement Standards (MPMS)

- Identify what portion(s) of MPMS apply to each component of the meter system
- If proposing new measurement technology¹, include an analysis comparing differences between the MPMS versions
 - include written justification supported with performance data that demonstrates equal or better measurement accuracy

Meter Run

- Accurate, detail drawings of the meter run (flow conditioning equipment through downstream spool piece); identify position of flanges (trued flanges?), threadlets, etc.
- Description/specifications of the flow meter (manufacturer, type, size, model, serial #, meter tube bore measurement, designed/certified for uni- or bi-directional flow, etc)
- Information that confirms the anticipated flow rates are within the accuracy range of the meter(s), taking into consideration anticipated changes to production performance
- Details about flow conditioning equipment (type, position relative to meter and basis for the position, etc.), if required
- Details of pressure and temperature measurement devices
- Type of fluid sampling; Quality bank arrangements
- Schedule for testing/certification (factory calibration) of the meter;

¹ AOGCC regulations currently incorporate API MPMS (November 30, 1998). Justification is required for metering equipment not addressed by the 1998 standard.

- provide AOGCC a minimum 1 week notice for opportunity to witness
- Factory/3rd Party calibration report for the meter; include sufficient information that confirms that the meter run to be installed matches what was calibrated

Flow Computer

- Descriptions/specifications of the flow computer; describe memory (capacity, volatile/nonvolatile; how long stored data is retained in memory)
- Flow computer configuration for sample calculations; include sample calculations with underlying measured data and equipment
- Descriptions/specifications of auxiliary equipment (UPS/battery backup; temperature and pressure sensors/transmitters; etc.)

Instrument/Meter Calibrations

- Specifications for meter prover
- Schedule for testing/certification (factory calibration) of the meter prover
 - provide AOGCC a minimum 1 week notice for opportunity to witness
- Frequency for meter prove (liquid) and transmitter calibration (gas) frequency
- Orifice (plate) inspection frequency
- Company performing meter proves/calibrations (self or third party)
- Pass/fail criteria for meter proves/calibrations
- Descriptions/specifications of instrumentation used for calibrations
- Calibration equipment certification schedule/traceability
- Recertification frequency and what specific criteria from periodic calibrations that dictates recertification (what are acceptance criteria for meter prover remaining in service?)

Note that several of these equipment descriptions are asking for detailed information. General sales brochures and vendor literature are of little use if you do not specify the exact equipment being used.

Please share this Guidance Bulletin with all appropriate members of your organizations. Questions regarding this guidance should be directed to James Regg at (907) 793-1236.

Sincerely,



Cathy P. Foerster
Chair, Commissioner