

Colorado NTL-90-1

United States Department of the Interior
Colorado Bureau of Land Management

Notice to Lessee/Operators of Onshore Federal and
Indian Oil and Gas Leases Within the Jurisdiction
of the Colorado State Office

NTL-CO-90-1

Standards for the Use of Electronic Flow Computers (EFC)
and Electronic Gas Measurement Systems

This notice is to inform lessee/operators of Bureau of Land Management (BLM) uniform standards for electronic flow computers (EFC) and electronic gas measurement systems on jurisdictional land within the state of Colorado. Onshore Order No. 5, Measurement of Gas, authorizes the BLM State Office having jurisdiction over the producing area to approve gas measurement by electronic flow computers which utilize an orifice. The orifice plate and meter tube must be designed and constructed to meet or exceed the minimum specifications outlined in Onshore Order No. 5. The State Director, Colorado, has redelegated the approval authority for gas measurement by this method to the various field offices.

Background

Over the past few years, the BLM has received an increasing number of applications requesting approval to use electronic flow computers and electronic gas measurement systems to measure gas. As a result, a committee was formed to develop minimum standards for the measurement of gas by this method on federal and Indian lands. The

committee met over the summer to develop draft standards. In developing these standards, the group reviewed data submitted by several oil and gas companies on pilot test projects that were run in different areas. These test projects involved a few selected wells which were equipped with an electronic flow meter installed in parallel with a conventional chart recorder. The wells were selected because of their wide variety of flow characteristics. After reviewing the data, the committee wrote a draft document which set standards for electronic flow meter installation and operation. Once this was accomplished, the committee met with industry representatives (oil and gas and pipeline companies) to solicit their input. The resulting standards are being issued in Notice to Lessee (NTL) format. It is anticipated that the standards in this NTL will be incorporated into the next revision on Onshore Order No. 5, Measurement of Gas, whenever that occurs. Operators must request approval from the authorized officer prior to installing an electronic flow meter. The following conditions must be met to obtain such approval:

Onsite (at meter) Equipment and Data Requirements

It is important to note that these electronic flow meters (EFM) represent a new method of recording measurement and storing that data for audit purposes, not a new method of measuring gas. The following paragraph discusses what equipment and information must be on location at the meter in order for the BLM to approve the EFM.

1. If requested by the authorized officer, the following data for the time period specified must be made available within two working days. Data need not be settlement volumes, unless specifically requested.

- Dates and times of data points
- Average static and differential pressures in hourly increments
- Average flowing temperatures in hourly increments
- Meter ID number (must match onsite number)
- Daily volumes
- Specific Gravity (average)

2. The following information must be maintained onsite and accessible to BLM personnel:

- Meter run size
- Orifice size
- Differential range
- Static range

- Temperature range
- Calibrated spans
- A unique meter ID number

3. All EFCs must be capable of retaining data collected for a minimum of 35 days if the main power source is interrupted or destroyed. Less retention time may be approved by the authorized officer if meter installations are inspected by the company more frequently. Retention time may not be less than company inspection intervals.

This requirement is met when a meter is equipped with an alarm system for power loss and where repairs can be effected before retention of data fails.

4. Equipment must be installed, maintained and operated within the manufacturer's specifications and meet accuracy standards of Onshore Oil and Gas Order No. 5 (OGO No. 5).

Retention of Information for Audit Purposes

1. The following information must be retained for a minimum of six years and available to the authorized officer upon request.

- Field edits or volume adjustments
- Calibration reports
- Gas analysis used in volume determination
- Orifice plate changes
- Monthly volume statements (Billing cycle)
- Hourly average static and differential pressures, hourly average flow

temperatures, hourly sums of extensions calculated at each datum point, hourly volumes and the algorithm used to obtain the summation of extensions, averages and volumes. Extensions are defined for the purpose of this notice as the square root value of the product of the differential pressure and static pressure.

2. A parity check is to be made whenever data are transferred from one medium to another.

Existing Equipment

All equipment in place on the date of this NTL, must meet the standards of this notice. Equipment must be installed, maintained and operated within the manufacturer's specifications and meet the accuracy standards of OGO No. 5.

Calibration Frequency

Calibration frequency shall be the same as the requirements for conventional chart recorder.

General Requirements

All the applicable requirements of Onshore Order No. 5 shall apply to EFCS. Reporting requirements shall be the same as the requirements for conventional chart recorder.

Date: December 26, 1988

Greg P. Shoop,
Acting State Director

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Last modified: December 3, 1998

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