



# United States Department of the Interior

BUREAU OF LAND MANAGEMENT  
Colorado State Office  
2850 Youngfield Street  
Lakewood, Colorado 80215-7093  
[www.blm.gov/co/st/en.html](http://www.blm.gov/co/st/en.html)



In Reply Refer to:  
3165 (CO-922)

**DEC 21 2007**

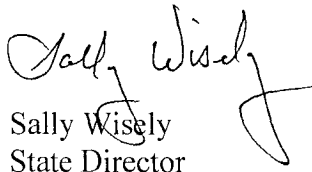
Dear Colorado Oil and Gas Lessee/Operator:

Enclosed is a copy of Notice to Lessees (NTL) 2007-1 regarding the standards for the use of Electronic Flow Computers (EFCs) used on differential-type flow meters for gas measurement. Effective immediately, EFCs that meet these standards and requirements are approved for use on all Federal and Indian oil and gas leases located within Colorado. All EFCs already installed and operating prior to this notice shall be subject to all of the new provisions in this NTL, within the timeframes specified below:

- 1 year for EFCs measuring more than 500 Mcf/day on a monthly basis;
- 2 years for EFCs measuring between 100 Mcf/day and 500 Mcf/day on a monthly basis;  
and
- 3 years for EFCs measuring 100 Mcf/day or less on a monthly basis.

A draft of this NTL was issued for public review and comment on July 27, 2007. All comments received were analyzed and considered and did not result in any changes being made to the NTL. Responses to the comments can be viewed on our website at:  
[http://www.blm.gov/co/st/en/BLM\\_Programs/oilandgas.html](http://www.blm.gov/co/st/en/BLM_Programs/oilandgas.html).

Sincerely,

  
Sally Wisely  
State Director

1 Enclosure:  
1 - NTL 2007-1 (6 pp)

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

Notice To Lessees/Operators of Onshore Federal and Indian  
Oil and Gas Leases Within the Jurisdiction of the  
Colorado State Office  
NTL CO-2007-01 ✓

Standards for the Use of Electronic Flow Computers Used On  
Differential Type Flow Meters For Gas Measurement

This notice is to inform Federal and Indian lessees/operators of the minimum standards and requirements for sales and allocation Electronic Flow Computers (EFCs) used on differential-type flow meters for gas measurement. EFCs that meet these standards and requirements are approved for use on all Federal and Indian oil and gas leases located within the jurisdiction of the Colorado State Office.

For the purpose of this NTL, a “*differential-type flow meter*” is a meter that determines flow rate as a function of a change in gas pressure caused by the meter geometry. Examples include orifice plate meters, venturi meters, and pitot tubes. An “*electronic flow computer*” includes the secondary device that electronically measures the differential pressure and other variables, and the tertiary device which makes flow rate calculations, and stores the data taken.

The requirements of this NTL supesede and replace NTL-CO-90-1, "Standards for the Use of Electronic Flow Computers (EFC) and Electronic Gas Measurement Systems" as well as all other variances specifically addressing EFC installation and approval. This NTL does not alter the standards and requirements of Onshore Order No. 5, applicable variances, or NTLs which only address the primary device. All EFCs already installed and operating prior to this notice shall be subject to all of the new provisions in this NTL, within the timeframes specified below:

- 1 year for EFCs measuring more than 500 Mcf/day on a monthly basis;
- 2 years for EFCs measuring more than 100 Mcf/day but no more than 500 Mcf/day on a monthly basis;
- 3 years for EFCs measuring 100 Mcf/day or less on a monthly basis.

Other Standards Incorporated by Reference

1. Onshore Oil and Gas Order Number 5, *Measurement of Gas on Federal and Indian Oil and Gas Leases*, remains in full force and effect. Note that:
  - Requirement III.C.21 is specific to AGA Committee Report No. 3, 1985. This requirement has been superseded by Paragraph 3, which allows the use of AGA Committee Report No. 3, 1992;

- Requirements III.C.4, III.C.5, III.C.13, III.C.14, III.C.15, III.C.16, and III.C.19 are unique to chart recorders and are not applicable to EFCs;
  - Paragraph 8 of this NTL provides requirements for EFCs similar to those provided for chart recorders in requirements III.C.13 and III.C.15;
  - Paragraphs 9, 11, 13, and 14 of this NTL provide requirements for EFCs similar to those provided for chart recorders in requirement III.C.19; and
  - Paragraph 15 of this NTL provides requirements for EFCs similar to those provided for chart recorders in requirements III.C.4 and III.C.5.
2. EFCs shall be installed, operated, and maintained in accordance with the portions of API Chapter 21, Section 1, September, 1993, that apply to differential types of flow meters. In addition, Paragraphs 4, 5, 6, 8, 9, 10, 12, 13, and 16 specify additional requirements or exceptions to API 21.1. Paragraphs 8, 10, 12, and 13, also state that only some of the provisions of API 21.1 will be enforced by BLM. Specific portions of API 21.1 are referenced at the end of each paragraph listed above.
  3. All flow rate calculations shall be made in accordance with either API 14.3, 1985 (AGA Committee Report No. 3, 1985), or API Chapter 14.3.3, 1992 (AGA Committee Report No. 3, Part 3, 1992). Supercompressibility shall be determined in accordance with API 14.3, 1985 (AGA Committee Report No. 3, 1985), AGA-8, or NX-19.

#### Informational Requirements

4. For each meter, the EFC shall display, at a minimum, the previous day gas volume and the current instantaneous values of flowing (static) pressure, differential pressure, flowing temperature, and flow rate. The display shall be readable without the need for data collection units, laptop computers, or any special equipment, shall be on-site, and shall be in a location that is accessible to BLM. (Note: This is an additional requirement to API 21.1.5.1.1.)
5. The following information must be onsite and be accessible to BLM personnel without the need for data collection units, laptop computers, or any special equipment. (Note 1: This is an additional requirement to API 21.1.5.1.1. Note 2: Operators must make every effort to keep this information accurate and up to date. If BLM finds this information to be inaccurate, operators shall correct the information.):
  - The units of measure for each variable required in paragraph 4;
  - Make, range, and model number of each transducer/transmitter;
  - Calibrated span of each transducer/transmitter;
  - The physical location of the flowing (static) pressure (upstream or downstream).
  - Meter run inside diameter (mean);
  - Orifice bore or other primary device dimensions necessary for device verification, beta ratio determination, and gas volume calculation;
  - Atmospheric pressure or elevation above sea level;