



Fact Sheet - 43 CFR 3174: OIL MEASUREMENT

October 17, 2016

43 CFR 3174 (the rule updating and replacing Order 4) establishes minimum standards for the measurement of oil produced from Federal and Indian (except Osage Tribe) leases to ensure that production is accurately measured and properly accounted for.

Overview of Final Rule

Like the proposed rule, the final rule addresses the use of new oil meter technology, proper measurement documentation, and recordkeeping; establishes performance standards for oil measurement systems; and includes a mechanism for the BLM to review, and approve for use, new oil measurement technology and systems. Specifically, the final rule:

- Incorporates proven industry standards developed by oil measurement experts from industry and the BLM;
- Formally authorizes the use of Coriolis Measurement Systems (CMSs);¹
- Establishes a process to recognize and approve the use of new measurement technology and methods through the Production Measurement Team, without the BLM having to amend its regulations;
- Increases the accountability of high-volume production wells by requiring operators to verify the accuracy of the meters on those wells more frequently; and
- Makes changes to improve the BLM's ability to verify and audit production records in order to ensure that production is being properly tracked.

By updating its minimum standards for oil measurement, the final rule strengthens the BLM's production accountability program to reflect the considerable changes in technology and industry practices that have occurred in the 25 years since the current Order 4 was issued.

Principal Changes Between the Proposed and Final Rules

Based on comments, data received, and additional internal reviews, the BLM made a number of revisions to the proposed rule. The five key areas receiving the most feedback were:

- 1) The level of detail in the proposed rule;
- 2) The requirements with respect to manual tank gauging accuracy;

¹ Even though CMSs have been proven reliable and accurate, Order 4 currently only expressly allows oil to be measured by manual tank gauging or with a positive displacement meter, which means operators wanting to use CMSs must seek a variance. The proposed rule would eliminate the need for industry to submit, and for the BLM to process, such variance requests.

- 3) The failure of the proposed rule to expressly authorize automatic tank gauging;
- 4) The phase-in periods provided for under the proposed rule; and
- 5) The process used by the BLM's new Production Measurement Team to review and approve new technology, systems, and methods.

Based on the comments received on these and other issues, the BLM made a number of changes to the final rule to address the concerns it heard. Key changes are summarized below (other changes are addressed in the preamble to the final rule):

- In response to comments and based on project market conditions, the BLM reduced the rule performance tiers from three in the proposed rule to two in the final (§ 3174.4(a)).
 - Facility measurement points (FMPs) measuring an average monthly volume greater than or equal to 30,000 barrels (bbl) per month would be subject to an uncertainty limit of ± 0.50 percent.
 - For FMPs measuring an average monthly volume of less than 30,000 bbl per month, the uncertainty limit would be ± 1.50 percent.
 - As result of these changes, only the highest producing facilities are subject to the rule's most stringent requirements.
- Adjusts meter proving requirements. Instead of requiring meter proving quarterly or every 50,000 bbl, the final rule requires meter proving to be: At least quarterly, or every 75,000 bbl, whichever comes first, but no more frequently than monthly (§ 3174.11(d)(2)).
 - Requiring operators to follow industry standards on proving master meters (§ 3174.11(b)(1)).
- Modifies the phase-in requirements in the final rule by:
 - Giving operators a phase-in period of 1 to 4 years after the rule's effective date to bring existing facility measurement point (FMP) equipment into compliance. This timeframe is based on the operators' production volumes and coincides with their schedule for applying for their FMP numbers (§ 3174.2(f)).
 - Providing 2 years to implement a requirement that operators begin using approved equipment listed on the BLM website (www.blm.gov) (§ 3174.2(g)).
- The final rule is less prescriptive than the proposed rule. In lieu of all the detailed procedures in the proposed rule, the final rule relies more generally on references to applicable API standards where the BLM has determined by following these standards FMPs would be capable of achieving the necessary performance objectives.
 - The final rule incorporates by reference many API standards that did not appear in the proposed rule and removes two industry standards developed by the American Society for Testing and Materials (ASTM).
 - It also incorporates recently published API standard governing tank measurement by Alternative Methods.

- Affirmatively allows operators to use Coriolis measurement systems (CMS) (§ 3174.9) and automatic tank gauging (ATG) systems (§ 3174.6(b)(2)(ii)) without having to obtain variances from the BLM – e.g., clarifying that lease automated custody transfer (LACT) systems may have either a Coriolis meter or a positive displacement (PD) meter.
- Allows the BLM to approve – through the Production Measurement Team – alternate measurement methods and technologies (§ 3174.13).
- Requires operators to submit sales tank calibration charts to the authorized officer within 45 days after calibrating or recalibrating instead of within 30 days as was originally proposed.
- Increases the maximum allowable measurement uncertainty levels for facilities producing at least 100 barrels per month.
- Allows use of electronic measurement tickets (§ 3174.12). The final rule requires that oil measurement tickets for LACT systems and CMS be closed at the end of each month and before proving, unless utilizing flow computers. Under the new rule operators are no longer required to close a run ticket before proving if they are utilizing flow computers.

Compliance Costs

The BLM estimates that the rule to replace Onshore Order 4 (will result in one-time transition costs of \$4.6 million (spread over 3 years), and on-going, annual costs of \$3.3 million. These aggregate costs translate to approximately \$1,538 per affected entity per year for each of the first 3 years, followed by \$1,242 per entity thereafter. Much of the estimated one-time costs come from a provision requiring all operators with LACT systems to install electronic temperature averagers, while much of the annual costs come from a provision requiring operators to utilize tank specific calibration tables for measurement by tank gauging.

Procedural History

- The Proposed Rule to Replace Onshore Order 4 was available for public comment for a total of 75 days.
 - Published September 30, 2015 for a 60-day comment period, which was subsequently extended until Dec. 14, 2015.
- BLM held 3 public meetings (Dec. 1st, 3rd, and 8th) in 2015.
- The BLM received at total of 106 unique and detailed comment letters.