

**PRODUCTION MEASUREMENT AND SITE  
SECURITY  
LAST UPDATE 2015**

**NOTE TO INSPECTOR:**

Before issuing an INC for an apparent violation, verify from on-site records or communications with the appropriate office that no waivers exist concerning said violation.

**MEASUREMENT OF LIQUID HYDROCARBONS**

**DOES THE OPERATOR ENSURE THAT ROYALTY METER FACILITIES INCLUDE THE FOLLOWING APPROVED COMPONENTS (OR OTHER MMS-APPROVED COMPONENTS) WHICH ARE COMPATIBLE WITH THE SYSTEMS TO WHICH THEY ARE CONNECTED:**

**M-100**

**A METER EQUIPPED WITH A NON-RESET TOTALIZER?**

**Authority:** 30 CFR 250.1202(b)(1)(i)

**Enforcement Action:** W/C

**INSPECTION PROCEDURE:**

1. Determine by visual inspection of, and/or from onsite records, that the royalty meter in use is of a type approved by the Regional Supervisor.
2. Visually inspect recording device and determine by make and model information that the counter head being used has a totalizer intended for non-resettable service.
3. Determine continuity of totalizer service by reviewing run tickets and/or meter proving reports. Where a break in totalizer service occurs determine cause and document findings in the inspection report.

**IF NONCOMPLIANCE EXISTS:**

Issue a warning (W) INC if records indicate there was a break in totalizer service. Issue a component shut-in (C) INC if:

1. Royalty meter in use is not of a type approved by the Regional Supervisor.
2. Meter is not equipped with a non-reset totalizer.

**INSPECTION COUNT/ INC COUNT:**

Enter one item checked/ issue one INC for each meter inspected.

**M-101**

**A CALIBRATED PROVER TANK, A MASTER METER, OR A MECHANICAL DISPLACEMENT (PIPE) PROVER?**

**Authority:** 30 CFR 250.1202(b)(1)(ii)

**Enforcement Action:** W/C

**INSPECTION PROCEDURE:**

1. Determine by on-site inspection that the facility is equipped with either a prover tank, a master meter, or a mechanical displacement prover.
2. Confirm from on-site records that the prover tank, master meter, or mechanical displacement prover has been calibrated within specified time frames.

**IF NONCOMPLIANCE EXISTS:**

Issue a warning (W) INC if on-site records show last calibration to be outside of specified time period. Issue a component shut-in (C) INC if:

1. Facility is not equipped with a prover tank, a master meter, or a mechanical displacement prover.
2. Prover tank or mechanical displacement prover has not been calibrated within the last five (5) years.
3. Master meter has not been calibrated within the last 42 days.

**INSPECTION COUNT/ INC COUNT:**

Enter one item checked/ issue one INC for each prover inspected.

**M-102**

**A PROPORTIONAL TO FLOW SAMPLING DEVICE WHICH IS PULSED BY THE METER OUTPUT?**

**Authority:** 30 CFR 250.1202(b)(1)(iii)

**Enforcement Action:** C

**INSPECTION PROCEDURE:**

Visually inspect the sampler system for a sampling device which is pulsed by the meter output.

**IF NONCOMPLIANCE EXISTS:**

Issue a component shut-in (C) INC if:

1. Sampling device does not exist.
2. Sampling device is not pulsed by the meter output.
3. Sampling device is not proportional to flow or is inoperable.

**INSPECTION COUNT/ INC COUNT:**

Enter one item checked/ issue one INC for each meter inspected.

**M-103**                    **A TEMPERATURE MEASUREMENT OR TEMPERATURE COMPENSATION DEVICE?**

**Authority: 30 CFR 250.1202(b)(1)(iv)**

**Enforcement Action: C**

**INSPECTION PROCEDURE:**

Visually inspect the metering system for one of the following temperature devices:

1. The ATC (Automatic Temperature Compensator) - non-resettable.
2. The ATG (Automatic Temperature Gravity) - gravity selective.
3. Recording temperature device (circular chart).
4. Other.

**IF NONCOMPLIANCE EXISTS:**

Issue a component shut-in (C) INC if:

1. Temperature device does not exist.
2. Temperature device is inoperable.

**INSPECTION COUNT/ INC COUNT:**

Enter one item checked/ issue one INC for each temperature device inspected.

**M-104**                    **IS EACH ROYALTY METER FACILITY MAINTAINED TO ENSURE THAT METERS ARE OPERATED WITHIN THE GRAVITY RANGE SPECIFIED BY THE MANUFACTURER? Authority: 30 CFR 250.1202(b)(3)(i)**

**Enforcement Action: W/C**

**INSPECTION PROCEDURE:**

1. Visually inspect the gravity setting of each ATG and compare these findings with the gravity range specified by the manufacturer.
2. Check previous run tickets to ensure meter has operated within gravity range specified by the manufacturer.
3. Document any instances when the meter was operating out of range found in the inspection report.

**IF NONCOMPLIANCE EXISTS:**

Issue a warning (W) INC if records indicate that meter has previously operated beyond manufacturer's specified limits.

Issue a component shut-in (C) INC if meter is presently operating outside of manufacturer's specified limits.

**INSPECTION COUNT/ INC COUNT:**

Enter one item checked/ issue one INC for each meter inspected.

**M-105**                    **IS EACH ROYALTY METER FACILITY MAINTAINED TO ENSURE THAT METERS ARE OPERATED WITHIN THE MANUFACTURER'S SPECIFICATIONS FOR MAXIMUM AND MINIMUM FLOW RATES?**

**Authority: 30 CFR 250.1202(b)(3)(ii)**

**Enforcement Action: W/C**

**INSPECTION PROCEDURE:**

1. Confirm from on-site records the manufacturer's specifications for maximum and minimum flow rates. If accessible, these rates can also be confirmed from visually inspecting the I.D. plate located on the meter body.
2. If meter is in operation, verify the flow rate and compare findings with the flow rate specified by the manufacturer.
3. Check previous meter proving reports to ensure that meter has operated within manufacturer's specified range for maximum and minimum flow rates. Document any instance the meter operated out of flow rate range in the inspection report.

**IF NONCOMPLIANCE EXISTS:**

1. Issue a warning (W) INC if records indicate that meter has previously operated beyond manufacturer's limits.
2. Issue a component shut-in (C) INC if meter is presently operating outside of manufacturer's specified limits.

**INSPECTION COUNT/ INC COUNT:**

Enter one item checked/ issue one INC for each meter inspected.

**M-106**                    **IS EACH ROYALTY METER FACILITY MAINTAINED TO ENSURE THAT METERS ARE RE-PROVEN WHEN CHANGES IN METERING CONDITIONS AFFECT THE METERS PERFORMANCE?**

**Authority: 30 CFR 250.1202(b)(3)(iii)**

**Enforcement Action: W/C**

**INSPECTION PROCEDURE:**

Check on-site records to ensure meters are re-proven when changes in metering conditions affect meter performance. Changes include but are not limited to:

1. Pressure
2. Temperature
3. Gravity
4. Viscosity
5. Flow rate
6. Water cut
7. Malfunction

**IF NONCOMPLIANCE EXISTS:**

Issue a warning (W) INC if records indicate that meter has previously operated during conditions which affected its performance without being re-proven, but at present is operating within specified limits.

Issue a component shut-in (C) INC if meter is presently operating under conditions that affect meter integrity without having been re-proven.

**INSPECTION COUNT/ INC COUNT:**

Enter one item checked/ issue one INC for each meter inspected.









M-127

**IS THE AVERAGE OF THE RESULTS OF THE FIVE OUT OF SIX CONSECUTIVE RUNS, PRODUCE A DIFFERENCE BETWEEN INDIVIDUAL RUNS OF NO GREATER THAN .05 PERCENT, WITH A MECHANICAL-DISPLACEMENT PROVER USED TO COMPUTE THE METER FACTOR?**

**Authority: 30 CFR 250.1202(h)(1)**

**Enforcement Action: C**

**INSPECTION PROCEDURE:**

Verify by on-site inspection or by reviewing calibration records that:

1. Five out of six consecutive runs produce results such that the difference between the results is not greater than 5 percent.
2. The average of the results of the five runs is used to compute the meter factor.

**IF NONCOMPLIANCE EXISTS:**

Issue a component shut-in (C) INC if meter is operating with a meter factor that was not established as per required procedure for mechanical-displacement prover.

**INSPECTION FORM: INSPECTION COUNT/ INC COUNT:**

Enter one item checked/ issue one INC for each mechanical displacement prover inspected.

M-129

**ARE SAMPLES FROM AN ALLOCATION METER TAKEN CONTINUOUSLY OR DAILY, OR IN THE CASE OF TURBINE METERS, TAKEN PROPORTIONAL TO THE FLOW ONLY?**

**Authority: 30 CFR 250.1202(k)(1)**

**Enforcement Action: W**

**30 CFR 250.1202(k)(2)**

**INSPECTION PROCEDURE:**

Verify there is equipment that allows for sampling of product that passes through the meter and that samples are taken continuously or daily.

**IF NONCOMPLIANCE EXISTS:**

Issue a warning (W) INC if records indicate that samples were not taken continuously or daily.

**INSPECTION FORM: INSPECTION COUNT/ INC COUNT:**

Enter one item checked/ issue one INC for each allocation sampling device inspected.

M-130

**ARE ALLOCATION METERS MEASURING 50 BARRELS OF OIL PER DAY OR MORE PROVEN MONTHLY?**

**Authority: 30 CFR 250.1202(k)(3)**

**Enforcement Action: W**

**INSPECTION PROCEDURE:**

Verify by inspection of field records or other appropriate records that allocation meter measuring more than 50 barrels of oil per day is proven at least monthly.

**IF NONCOMPLIANCE EXISTS:**

Issue a warning (W) INC if:

1. An operating allocation meter measuring more than 50 barrels per day has not been proven monthly.
2. A review of records reveals that a period greater than a month has elapsed between any prior provings.

**INSPECTION COUNT/ INC COUNT:**

Enter one item checked/ issue one INC for each operating allocation meter measuring more than 50 barrels of oil per day inspected.

M-131

**ARE ALLOCATION METERS MEASURING LESS THAN 50 BARRELS OF OIL PER DAY PROVEN EACH CALENDER QUARTER?**

**Authority: 30 CFR 250.1202(k)(4)**

**Enforcement Action: W**

**INSPECTION PROCEDURE:**

Verify by inspection of field records or other appropriate records that allocation meter measuring less than 50 barrels of oil per day is proven at least each calendar quarter.

**IF NONCOMPLIANCE EXISTS:**

Issue a warning (W) INC if operating allocation meter measuring less than 50 barrels of oil per day has not been proven each calendar quarter.

**INSPECTION COUNT/ INC COUNT:**

Enter one item checked/ issue one INC for each operating allocation meter measuring less than 50 barrels of oil per day inspected.

- M-132** **IS A COPY OF EACH ALLOCATION METER PROVING REPORT KEPT AT THE FIELD LOCATION FOR A PERIOD OF 2 YEARS?**  
**Authority: 30 CFR 250.1202(k)(5)** **Enforcement Action: W**  
**INSPECTION PROCEDURE:**  
Verify by on-site inspection that meter proving records are retained and completed for two (2) years at the field location.  
**IF NONCOMPLIANCE EXISTS:**  
Issue a warning (W) INC if two (2) years of prior proving records are not present for review at the field location.  
**INSPECTION FORM:**  
Enter one item checked for each allocation meter measuring more than 50 barrels of oil inspected.  
**INSPECTION COUNT/ INC COUNT:**  
Enter one item checked/ issue one INC for each allocation meter inspected.
- M-133** **IF AN ALLOCATION METER PROVING RESULTS IN A METER FACTOR WHICH DIFFERS FROM THE PREVIOUS METER FACTOR BY AN AMOUNT GREATER THAN 2 PERCENT AND LESS THAN 7 PERCENT, IS THE ALLOCATION METER ADJUSTED AND RE-PROVEN PRIOR TO RETURN TO SERVICE?**  
**Authority: 30 CFR 250.1202(k)(6)** **Enforcement Action: W**  
**INSPECTION PROCEDURE:**  
Verify from on-site proving records that for any episode when the meter factor differs from the previous meter factor by more than 2 percent but less than 7 percent, the allocation meter is:  
1. Adjusted  
2. Re-proven so that meter factor differs by less than 2 percent from previous good meter factor.  
3. Returned to service.  
**IF NONCOMPLIANCE EXISTS:**  
Issue warning (W) INC if :  
1. Review of proving records reveals that the allocation meter had a meter factor that differed from prior factor by more than 2 percent but less than 7 percent and was not adjusted and re-proven to acceptable tolerance.  
2. The allocation meter is operating with a meter factor that differs from prior meter factor by more than 2 percent but less than 7 percent and has not been adjusted and re-proven.  
**INSPECTION COUNT/ INC COUNT:**  
Enter one item checked/ issue one INC for each allocation meter inspected.
- M-134** **IF AN ALLOCATION METER PROVING RESULTS IN A METER FACTOR WHICH DIFFERS FROM THE PREVIOUS METER FACTOR BY AN AMOUNT EQUAL TO OR GREATER THAN 7 PERCENT, IS THE ALLOCATION METER REPAIRED AND RE-PROVEN PRIOR TO RETURN TO SERVICE?**  
**Authority: 30 CFR 250.1202(k)(8)** **Enforcement Action: W**  
**INSPECTION PROCEDURE:**  
Verify from on-site proving records that for any episode when the meter factor is greater than or equal to a 7 percent difference from the previous meter factor, the allocation meter is:  
1. Repaired or replaced  
2. Re-proven so that meter factor differs 7 percent or less from the previous good meter factor.  
3. Returned to service.  
**IF NONCOMPLIANCE EXISTS:**  
Issue a warning (W) INC if:  
1. A review of proving records reveals that allocation meter had a meter factor greater than or equal to 7 percent difference from the prior factor and was not repaired and re-proven to acceptable tolerance.  
2. The allocation meter is operating with a meter factor that is greater than or equal to 7 percent from prior factor and has not been repaired and re-proven.  
**INSPECTION COUNT/ INC COUNT:**  
Enter one item checked/ issue one INC for each allocation meter inspected.
- M-135** **IS EACH ROYALTY AND INVENTORY TANK FACILITY DESIGNATED AS A LOCATION ON WHICH ROYALTY SHALL BE BASED EQUIPPED WITH A VAPOR-TIGHT THIEF HATCH? Authority: 30 CFR 250.1202(l)(1)** **Enforcement Action: C**  
**INSPECTION PROCEDURES:**  
Verify by on-site inspection that a vapor-tight thief hatch exists at designated royalty tank facilities and there is no visible evidence of leakage and gasket is in good working condition.  
**IF NONCOMPLIANCE EXISTS:**  
Issue a component shut-in (C) for sales tank facilities that:  
1. Do not have a thief hatch that can be secured vapor-tight.  
2. Show visible signs of leakage.  
**INSPECTION COUNT/ INC COUNT:**  
Enter one item checked/ issue one INC for each royalty tank inspected.



M-136

**IS EACH ROYALTY OR INVENTORY TANK DESIGNATED AS A LOCATION ON WHICH ROYALTY SHALL BE BASED EQUIPPED WITH A VENT-LINE VALVE?**

**Authority:** 30 CFR 250.1202(l)(1)

**Enforcement Action:** C

**INSPECTION PROCEDURE:**

Verify by on-site inspection of designated royalty tank facility that any of the following exists:

1. A vent-line valve is installed.
2. The valve is operable.
3. The valve is in the closed position when not in service.

**IF NONCOMPLIANCE EXISTS:**

Issue a component shut-in (C) INC for royalty tank facilities that:

1. Are not equipped with a vent-line valve.
2. Have a valve which is not fully functional.
3. Have a valve which is found in the open position when not in service.

**INSPECTION COUNT/ INC COUNT:**

Enter one item checked/ issue one INC for each royalty tank inspected.

M-137

**IS EACH ROYALTY OR INVENTORY TANK FACILITY DESIGNATED AS A LOCATION ON WHICH ROYALTY SHALL BE BASED EQUIPPED WITH A FILL LINE DESIGNED TO MINIMIZE FREE FALL AND SPLASHING?**

**Authority:** 30 CFR 250.1202(l)(1)

**Enforcement Action:** C

**INSPECTION PROCEDURE:**

Verify by on-site inspection that a fill line designed to minimize free fall and splashing is installed at designated royalty tank facility.

**IF NONCOMPLIANCE EXISTS:**

Issue a component shut-in (C) INC for royalty tank facility that is not equipped with a fill line designed to limit free fall and splashing.

**INSPECTION COUNT/ INC COUNT:**

Enter one item checked/ issue one INC for each royalty tank inspected.

M-138

**DOES EACH ROYALTY METER FACILITY PREVENT REVERSAL OF FLOW THROUGH THE METER?**

**Authority:** 30 CFR 250.1202(b)(2)(i)

**Enforcement Action:** C

**INSPECTION PROCEDURE:**

Verify by on-site inspection that the royalty meter facility is designed to prevent reversal of flow through the royalty meter by the presence of a check valve (FSV) upstream or downstream of meter.

**IF NONCOMPLIANCE EXISTS:**

Issue a component shut-in (C) INC for the royalty meter facility that is not equipped to prevent reversal of flow through the royalty meter.

**INSPECTION COUNT/ INC COUNT:**

Enter one item checked/ issue one INC for each royalty tank inspected.

M-139

**DOES EACH ROYALTY METER FACILITY PROTECT METERS FROM PRESSURE PULSATIONS OR SURGES?**

**Authority:** 30 CFR 250.1202(b)(2)(ii)

**Enforcement Action:** C

**INSPECTION PROCEDURE:**

Verify by on-site inspection that the royalty meter facility is designed to protect meter from incidental pressure surges by the presence of one of the following devices upstream of the meter:

1. Surge tank
2. Expansion chamber
3. Other acceptable means of protection

**IF NONCOMPLIANCE EXISTS:**

Issue a component shut-in (C) INC for the royalty meter facility that:

1. Is not equipped to protect meter from pressure surges.
2. Has an inoperative pressure surge protection device.

**INSPECTION COUNT/ INC COUNT:**

Enter one item checked/ issue one INC for each meter inspected.

**M-140** **DOES EACH ROYALTY METER FACILITY PREVENT THE METER FROM BEING SUBJECTED TO SHOCK PRESSURES WHICH ARE GREATER THAN ITS MAXIMUM RATED WORKING PRESSURE?**  
**Authority:** 30 CFR 250.1202(b)(2)(iii) **Enforcement Action:** C  
**INSPECTION PROCEDURE:**  
Verify by on-site inspection and review of related records that the royalty meter facility is designed to prevent shock pressures to meter in excess of maximum rated working pressure by the presence of one of the following devices upstream of the meter:  
1. Pressure-limiting valve (pressure regulator)  
2. Relief valve (PSV)  
3. Other acceptable means of protection  
**IF NONCOMPLIANCE EXISTS:**  
Issue a component shut-in (C) INC for the royalty meter facility that:  
1. Is not equipped to prevent the meter from being subjected to shock pressure.  
2. Has an inoperative shock pressure protection device.  
**INSPECTION COUNT/ INC COUNT:**  
Enter one item checked/ issue one INC for each meter inspected.

**M-141** **IS THE LESSEE USING PROCEDURES AND CORRECTION FACTORS ACCORDING TO THE APPLICABLE CHAPTERS OF API MPMS, AS INCORPORATED BY REFERENCE IN 30 CFR 250.198, WHEN OBTAINING NET STANDARD VOLUME AND ASSOCIATED MEASUREMENT PARAMETERS?**  
**Authority:** 30 CFR 250.1202(a)(3) **Enforcement Action:** C  
**INSPECTION PROCEDURE:**  
Verify by a review of the records that the lessee is using procedures and correction factors according to the applicable chapters of API MPMS, as incorporated by reference in 30 CFR 250.198.  
**IF NONCOMPLIANCE EXISTS:**  
Issue a component shut-in (C) INC if the lessee is not using procedures and correction factors according to the applicable chapters of API MPMS, as incorporated by reference in 30 CFR 250.198.  
**INSPECTION COUNT/ INC COUNT:**  
Enter one item checked/ issue one INC for each meter inspected.

**M-142** **WHEN REQUESTED BY THE MMS REGIONAL SUPERVISOR, DOES THE LESSEE PROVIDE THE PIPELINE (RETROGRADE) CONDENSATE VOLUMES AS ALLOCATED TO THE INDIVIDUAL LEASES OR UNITS?**  
**Authority:** 30 CFR 250.1202(a)(4) **Enforcement Action:** C  
**INSPECTION PROCEDURE:**  
Verify that, when requested by the MMS Regional Supervisor, the lessee has provided the pipeline (retrograde) condensate volumes as allocated to the individual leases or units.  
**IF NONCOMPLIANCE EXISTS:**  
Issue a component shut-in (C) INC if the lessee, when requested by the MMS Regional Supervisor, has not provided the pipeline (retrograde) condensate volumes as allocated to the individual leases or units. **INSPECTION COUNT/ INC COUNT:**  
Enter one item checked/ issue one INC for each lease or unit inspected.

## **RUN TICKETS**

**M-143** **FOR ROYALTY METERS AND ROYALTY TANKS, DOES THE LESSEE ENSURE THAT THE RUN TICKETS CLEARLY IDENTIFY ALL OBSERVED DATA, ALL APPLICABLE CORRECTION FACTORS, ON/OFF SEAL NUMBERS, AND THE NET STANDARD VOLUME?**  
**Authority:** 30 CFR 250.1202(c)(1)  
30 CFR 250.1202(c)(2) **Enforcement Action:** W/C  
**INSPECTION PROCEDURE:**  
1. Verify that the royalty meter or royalty tank run tickets are available for review.  
2. Review the royalty meter or royalty tank run tickets to verify that they clearly identify all observed data, all correction factors, on/off seal numbers, and the net standard volume.  
**IF NONCOMPLIANCE EXISTS:**  
1. Issue a warning (W) INC if the royalty meter or royalty tank run tickets are not available for review.  
2. Issue a component shut-in (C) INC if the royalty meter or royalty tank run tickets do not clearly identify all observed data, all correction factors, on/off seal numbers (royalty tank only), and the net standard volume.  
**INSPECTION COUNT/ INC COUNT:**  
Enter one item checked/ issue one INC for each run ticket inspected.

M-144

**DOES THE LESSEE PULL A RUN TICKET AT THE BEGINNING OF THE MONTH AND IMMEDIATELY AFTER ESTABLISHING THE MONTHLY METER FACTOR OR A MALFUNCTION METER FACTOR?**

**Authority:** 30 CFR 250.1202(e)(3)

**Enforcement Action:** C

**INSPECTION PROCEDURE:**

Verify that the lessee pulled a run ticket at the beginning of the month and immediately after establishing the monthly meter factor or a malfunction meter factor.

**IF NONCOMPLIANCE EXISTS:**

Issue a component shut-in (C) INC if the lessee has not pulled a run ticket at the beginning of the month and immediately after establishing the monthly meter factor or a malfunction meter factor.

**INSPECTION COUNT/ INC COUNT:**

Enter one item checked/ issue one INC for each run ticket inspected.

**MEASUREMENT OF LIQUID HYDROCARBONS**

M-150

**ARE LIQUID ROYALTY METERS TAKEN OUT OF SERVICE, REPAIRED OR REPLACED, AND REPROVEN IF THE DIFFERENCE BETWEEN THE METER FACTOR AND THE PREVIOUS METER FACTOR EXCEEDS 0.0025?**

**Authority:** 30 CFR 250.1202(i)(1)(i)

**Enforcement Action:** W/C

30 CFR 250.1202(i)(1)(ii)

30 CFR 250.1202(i)(1)(iii)

30 CFR 250.1202(i)(1)(iv)

**INSPECTION PROCEDURE:**

1. If a malfunction occurs during witnessing:

A. Ensure that the meter remains out of service until the malfunction is corrected.

B. Ensure that the average of the malfunction factor and the previous factor is applied to the production measured through the meter between the date of the previous factor and the date of the malfunction factor.

C. Ensure that proving reports indicate that a malfunction occurred and show all appropriate remarks regarding subsequent repairs or adjustments.

**Note:** If A through C above are accomplished, an INC is not warranted.

2. Check proving reports for previous meter malfunctions.

**IF NONCOMPLIANCE EXISTS:**

Issue a warning (W) INC if proving reports indicate that a previous meter malfunction occurred, the meter was taken out of service, repaired or replaced, and reproved; but information as to production averaging and meter repair or replacement is not available.

Issue a component shut-in (C) INC if proving reports indicate that a previous meter malfunction occurred and the meter was not taken out of service, repaired or replaced, and reproved.

**INSPECTION COUNT/ INC COUNT:**

Enter one item checked/ issue one INC for each meter inspected.

**MEASUREMENT OF GAS**

M-200

**IS THE GAS MEASURING EQUIPMENT INSTALLED AND OPERATED IN ACCORDANCE WITH THE RECOMMENDATIONS CONTAINED IN API MPMS, AS INCORPORATED BY REFERENCE IN 30 CFR 250.198?**

**Authority:** 30 CFR 250.1202(b)(2)

**Enforcement Action:** W/C

**INSPECTION PROCEDURE:**

1. Determine by visual inspection and review of on-site records that the gas measuring equipment is installed and operated in accordance with specifications and recommendations contained in API MPMS, as incorporated by reference in 30 CFR 250.198. Use of gas meter inspection form will ensure compliance with this requirement.

2. Verify from on-site records that all data which determines the hourly meter factor is correctly recorded, including static and differential range, meter tube I.D., and orifice plate size.

**IF NONCOMPLIANCE EXISTS:**

Issue a warning (W) INC if:

1. Records indicate that the meter has operated outside the limits prescribed in API MPMS, as incorporated by reference in 30 CFR 250.198.

2. Data which determine the hourly meter factor are incorrectly recorded.

Issue a component shut-in (C) INC if meter is operating outside of the limits prescribed in API MPMS, as incorporated by reference in 30 CFR 250.198.

**INSPECTION COUNT/ INC COUNT:**

Enter one item checked/ issue one INC for each meter inspected.

- M-201** **IS THE MMS REPRESENTATIVE(S) PERMITTED TO WITNESS ALL REGULARLY SCHEDULED GAS METER CALIBRATIONS OR CALIBRATIONS REQUESTED BY THE REGIONAL SUPERVISOR?**  
**Authority: 30 CFR 250.1202(c)(5)** **Enforcement Action: W**  
**INSPECTION PROCEDURE:**  
Verify the MMS representative(s) is permitted to witness all regularly scheduled gas meter calibrations or any gas meter calibration requested by the MMS Regional Supervisor.  
**IF NONCOMPLIANCE EXISTS:**  
Issue a warning (W) INC if MMS representative(s) is not permitted to witness the gas meter calibrations.  
**INSPECTION COUNT/ INC COUNT:**  
Enter one item checked/ issue one INC for each calibration not permitted to witness.
- M-202** **IS EACH GAS METER CALIBRATED MONTHLY, BUT NOT TO EXCEED 42 DAYS?**  
**Authority: 30 CFR 250.1202(c)(1)** **Enforcement Action: W/C**  
**INSPECTION PROCEDURE:**  
Verify from visual inspection of on-site calibration records that gas meter was calibrated within last 42 days.  
**IF NONCOMPLIANCE EXISTS:**  
Issue a warning (W) INC if 2 years of calibration test data is not available for inspection at the field location, or if review of records reveals time periods between gas meter calibrations of greater than 42 days.  
Issue a component shut-in (C) INC if operating gas meter was last calibrated more than 42 days ago.  
**INSPECTION COUNT/ INC COUNT:**  
Enter one item checked/ issue one INC for each gas meter inspected.
- M-203** **IS THE METER CALIBRATED ACCORDING TO THE MANUFACTURER’S SPECIFICATIONS?**  
**Authority: 30 CFR 250.1202(c)(1)** **Enforcement Action: C**  
**INSPECTION PROCEDURE:**  
Verify by lessee records that the meter has been calibrated according to the manufacturer’s specifications.  
**IF NONCOMPLIANCE EXISTS:**  
Issue a warning (C) INC if the records show the meter has not been calibrated according to the manufacturer’s specifications.  
**INSPECTION COUNT/ INC COUNT:**  
Enter one item checked/ issue one INC for each meter inspected
- M-204** **ARE METER CALIBRATIONS CONDUCTED AS CLOSE AS POSSIBLE TO THE AVERAGE HOURLY RATE OF FLOW SINCE THE LAST CALIBRATION?**  
**Authority: 30 CFR 250.1202(c)(3)** **Enforcement Action: W**  
**INSPECTION PROCEDURE:**  
Verify by on-site witnessing if meter calibrations are conducted as close as possible to the average hourly rate of flow since the last calibration.  
**IF NONCOMPLIANCE EXISTS:**  
Issue a warning (W) INC if the meter calibrations were not conducted as close as possible to the average hourly rate of flow since the last calibration.  
**INSPECTION COUNT/ INC COUNT:**  
Enter one item checked/ issue one INC for each meter inspected.
- M-205** **DOES THE LESSEE RETAIN CALIBRATION TEST DATA AT THE FIELD LOCATION FOR A PERIOD OF 2 YEARS?**  
**Authority: 30 CFR 250.1202(c)(4)** **Enforcement Action: W**  
**INSPECTION PROCEDURE:**  
Verify from appropriate on-site records that calibration test data are maintained for a period of 2 years.  
**IF NONCOMPLIANCE EXISTS:**  
Issue a warning (W) INC if records show that calibration test data are not maintained at the field location for a period of 2 years.  
**INSPECTION COUNT/ INC COUNT:**  
Enter one item checked/ issue one INC for each meter inspected.

M-206

**WHENEVER A GAS METER IS NOT FUNCTIONING OR NOT REGISTERING WITHIN THE LIMITS OF ACCURACY PRESCRIBED BY THE MANUFACTURER, IS IT REMOVED FROM SERVICE AND NOT RETURNED TO SERVICE UNTIL REPAIRED OR ADJUSTED TO READ ACCURATELY?**

**Authority:** 30 CFR 250.1202(d)(1)  
30 CFR 250.1202(d)(2)

**Enforcement Action:** C

**INSPECTION PROCEDURE:**

1. Verify from on-site records of manufacturer's specifications and visual inspection if a gas meter is operating within the limits of accuracy.
2. Verify by on-site records and visual inspection that a gas meter operating outside the limits of accuracy prescribed by the manufacturer is removed from service.
3. Verify that repairs or adjustments are made so that gas meter will again read accurately.

**IF NONCOMPLIANCE EXISTS:**

Issue a component shut-in (C) INC if a gas meter is operating outside the limits of accuracy as prescribed by the manufacturer.

**INSPECTION COUNT/ INC COUNT:**

Enter one item checked/ issue one INC for each gas meter inspected.

M-207

**ARE BOEMRE REPRESENTATIVES PERMITTED TO INSPECT THE MEASUREMENT AND SAMPLING EQUIPMENT OF NATURAL GAS PROCESSING PLANTS THAT PROCESS FEDERAL PRODUCTION?**

**Authority:** 30 CFR 250.1202(e)(2)

**Enforcement Action:** W

**INSPECTION PROCEDURE:**

Notify the lessee or gas plant operator that inspection procedures will be conducted on the measurement and sampling equipment associated with Federal production.

**IF NONCOMPLIANCE EXISTS:**

Issue a warning (W) INC if the lessee or gas plant operator attempts to prevent inspection procedures on the measurement and sampling equipment associated with Federal production.

**INSPECTION COUNT/ INC COUNT:**

Enter one item checked/ issue one INC for each meter inspected denied.

M-208

**UPON REQUEST, DOES THE OPERATOR PROVIDE THE MMS REGIONAL SUPERVISOR A COPY OF THE MONTHLY GAS PROCESSING PLANT ALLOCATION STATEMENT, AND THE GROSS HEATING VALUES OF THE INLET AND RESIDUE STREAMS WHEN NOT REPORTED ON THE GAS PLANT STATEMENT?**

**Authority:** 30 CFR 250.1202(e)(1)(i)  
30 CFR 250.1202(e)(1)(ii)

**Enforcement Action:** W

**INSPECTION PROCEDURE:**

Verify that the operator, upon request, has provided the Regional Supervisor with a copy of the monthly gas processing plant allocation statement, and the gross heating values of the inlet and residue streams when not reported on the gas plant statement.

**IF NONCOMPLIANCE EXISTS:**

Issue a warning (W) INC if the operator, after requested, has not provided the Regional Supervisor a copy of the monthly gas processing plant allocation statement, and the gross heating values of the inlet and residue streams when not reported on the gas plant statements.

**INSPECTION COUNT/ INC COUNT:**

Enter one item checked/ issue one INC for each allocation statement inspected.

M-209

**DOES OPERATOR MAINTAIN CONSISTENT LEVELS OF ACCURACY FOR MEASUREMENT COMPONENTS THROUGHOUT THE SYSTEM?**

**Authority:** 30 CFR 250.1202(b)(3)

**Enforcement Action:** W

**INSPECTION PROCEDURE:**

Verify through records that operator ensures measurement components demonstrate consistent levels of accuracy throughout the system.

**IF NONCOMPLIANCE EXISTS:**

Issue a warning (W) INC if the operator, does not maintain consistent levels of accuracy for measurement components throughout the system.

**INSPECTION COUNT/ INC COUNT:**

Enter one item checked/ issue one INC for each measurement component inspected.

**M-210** **DID OPERATOR TAKE PROPORTIONAL-TO-FLOW OR SPOT SAMPLES UPSTREAM OR DOWNSTREAM OF THE METER AT LEAST ONCE EVERY SIX MONTHS?**  
**Authority:** 30 CFR 250.1202(b)(5) **Enforcement Action:** W  
**INSPECTION PROCEDURE:**  
Verify through records that operator obtained proportional-to-flow or spot samples upstream or downstream of the meter at least once every 6 months.  
**IF NONCOMPLIANCE EXISTS:**  
Issue a warning (W) INC if the operator, did not obtain proportional-to-flow or spot samples upstream or downstream of the meter at least once every 6 months.  
**INSPECTION COUNT/ INC COUNT:**  
Enter one item checked/ issue one INC for each meter inspected.

## **SURFACE PRODUCTION AND COMMINGLING**

**M-248** **HAS THE LESSEE SUBMITTED A WRITTEN APPLICATION AND RECEIVED APPROVAL FROM THE MMS REGIONAL SUPERVISOR BEFORE DOING THE FOLLOWING: (1) COMMENCING GAS OR LIQUID HYDROCARBON PRODUCTION, (2) COMMENCING THE COMMINGLING OF PRODUCTION, OR (3) MAKING CHANGES TO THE PREVIOUSLY-APPROVED PRODUCTION MEASUREMENT OR COMMINGLING PROCEDURES?**  
**Authority:** 30 CFR 250.1202(a)(1) **Enforcement Action:** C  
30 CFR 250.1202(b)(1)  
30 CFR 250.1204(a)(1)  
**INSPECTION PROCEDURE:**  
Review the records to verify the lessee has submitted a written application and did receive approval from the MMS Regional Supervisor before (1) commencing production, (2) commencing the commingling of production, or (3) making changes to the previously-approved production measurement or commingling procedures.  
**IF NONCOMPLIANCE EXISTS:**  
Issue a component shut-in (C) INC if the lessee did not submit a written application and/or approval was not received from the MMS Regional Supervisor.  
**INSPECTION COUNT/ INC COUNT:**  
Enter one item checked/ issue one INC for each lease commingling observed.

**M-249** **UPON REQUEST, HAS THE LESSEE DELIVERING STATE LEASE PRODUCTION INTO A FEDERAL COMMINGLING SYSTEM PROVIDED THE MMS REGIONAL SUPERVISOR WITH VOLUMETRIC FRACTIONAL ANALYSIS DATA ON THE STATE LEASE PRODUCTION THROUGH THE DESIGNATED SYSTEM OPERATOR?**  
**Authority:** 30 CFR 250.1202(a)(2) **Enforcement Action:** C  
**INSPECTION PROCEDURE:**  
Verify that lessee delivering State lease production into a Federal commingling system has, upon request, provided the MMS Regional Supervisor with volumetric fractional analysis data on the State lease production through the designated system operator.  
**IF NONCOMPLIANCE EXISTS:**  
Issue a component shut-in (C) INC if the lessee, upon request, has not provided the MMS Regional Supervisor with the volumetric fractional analysis data on the State lease production through the designated system operator.  
**INSPECTION COUNT/ INC COUNT:**  
Enter one item checked/ issue one INC for each lease commingling observed

**M-250** **DOES THE LESSEE CONDUCT A WELL TEST FOR ALLOCATION PURPOSES AT LEAST ONCE EVERY 2 MONTHS (1 TIME EVERY 60 DAYS) (OR AS OTHERWISE APPROVED BY THE BOEMRE REGIONAL SUPERVISOR), AND FOLLOW THE WELL TEST PROCEDURES IN 30 CFR PART 250, SUBPART K?**  
**Authority:** 30 CFR 250.1204(b)(1) **Enforcement Action:** W  
30 CFR 250.1204(b)(2)  
**INSPECTION PROCEDURE:**  
Verify from appropriate records that each well has been tested for allocation purposes at least once every 2 months (1 time every 60 days) (or as otherwise approved by the MMS Regional Supervisor), and the well test procedures in 30 CFR part 250, Subpart K, are followed.  
**IF NONCOMPLIANCE EXISTS:**  
Issue a warning (W) INC if records show that well tests occurred outside the 2-month period or the lessee did not follow the well test procedures in 30 CFR part 250, Subpart K.  
**INSPECTION COUNT/ INC COUNT:**  
Enter one item checked/ issue one INC for each producing well inspected.

**M-251** **DOES THE LESSEE RETAIN TEST DATA AT THE FIELD LOCATION FOR A PERIOD OF 2 YEARS?**

**Authority:** 30 CFR 250.1204(b)(3)

**Enforcement Action:** W

**INSPECTION PROCEDURE:**

Verify from on-site records that test data are maintained at the field location for a period of 2 years.

**IF NONCOMPLIANCE EXISTS:**

Issue a warning (W) INC if records show that test data are not maintained for a period of 2 years.

**INSPECTION COUNT/ INC COUNT:**

Enter one item checked/ issue one INC for each producing well inspected.

## SITE SECURITY

**M-298** **IS THE LESSEE PROTECTING FEDERAL PRODUCTION AGAINST PRODUCTION LOSS OR THEFT?**

**Authority:** 30 CFR 250.1205(a)(1)

**Enforcement Action:** C/S

**INSPECTION PROCEDURE:**

Conduct an on-site inspection to verify the lessee is protecting Federal production against any, and all, production loss or theft.

**IF NONCOMPLIANCE EXISTS:**

Issue a component shut-in (C) INC for the component involved in the production loss or theft.

Issue a facility shut-in (S) INC if the lessee is not protecting Federal production against production loss or theft.

**INSPECTION COUNT/ INC COUNT:**

Enter one item checked/ issue one INC for each measurement facility inspected.

**M-299** **IF THEFT, MISHANDLING OF PRODUCTION, TAMPERING OR BYPASSING OF ANY COMPONENT OF THE ROYALTY MEASUREMENT FACILITY, OR THE FALSIFYING OF PRODUCTION MEASUREMENT HAS OCCURRED, DID THE LESSEE REPORT IT TO THE MMS REGIONAL SUPERVISOR AS SOON AS POSSIBLE, BUT NO LATER THAN THE NEXT BUSINESS DAY AFTER DISCOVERY?**

**Authority:** 30 CFR 250.1205(a)(4)(i)

**Enforcement Action:** W

30 CFR 250.1205(a)(4)(ii)

30 CFR 250.1205(a)(4)(iii)

**INSPECTION PROCEDURE:**

Verify that if any of the above violations have occurred, the lessee reported the violation(s) to the MMS Regional Supervisor as soon as possible, but no later than the next business day after discovery.

**IF NONCOMPLIANCE EXISTS:**

Issue a warning (W) INC if the lessee failed to report any of the above violations to the MMS Regional Supervisor within the time prescribed.

**INSPECTION COUNT/ INC COUNT:**

Enter one item checked/ issue one INC for each violation not reported.

**M-300** **ARE THE COMPONENTS OF ROYALTY MEASURING DEVICES (METERING UNITS AND TANKS) SEALED IN A MANNER TO PRECLUDE TAMPERING?**

**Authority:** 30 CFR 250.1205(b)(1)

**Enforcement Action:** W/C

**INSPECTION PROCEDURE:**

Verify by on-site inspection that the components of royalty measuring devices are sealed in a manner to preclude tampering.

**IF NONCOMPLIANCE EXISTS:**

Issue a warning (W) INC if seals have been broken and records do not address reason or justification.

Issue a component shut-in (C) INC if components of royalty measuring devices are not sealed in a manner to preclude tampering.

**INSPECTION COUNT/ INC COUNT:**

Enter one item checked/ issue one INC for each metering unit or tank inspected.

- M-301 ARE WIRE OR OTHER ACCEPTABLE TYPES OF SEALS NUMBERED AND RECORDED?**  
**Authority: 30 CFR 250.1205(b)(3) Enforcement Action: W/C**  
**INSPECTION PROCEDURE:**  
 Verify by on-site inspection and review of appropriate records that wire or other acceptable types of seals are numbered and recorded.  
**IF NONCOMPLIANCE EXISTS:**  
 Issue a warning (W) INC if seals are not recorded properly.  
 Issue a component shut-in (C) INC if wire or other acceptable types of seals are not numbered.  
**INSPECTION COUNT/ INC COUNT:**  
 Enter one item checked/ issue one INC for each meter or tank inspected.
- M-302 IS A LIST OF THE SEAL NUMBERS MAINTAINED AT THE FIELD LOCATION FOR AT LEAST 2 YEARS AND IS THE LOCATION MADE AVAILABLE FOR INSPECTION BY MMS REPRESENTATIVES?**  
**Authority: 30 CFR 250.1205(b)(3) Enforcement Action: W**  
**30 CFR 250.1205(b)(4)**  
**INSPECTION PROCEDURE:**  
 Verify by review of appropriate on-site records that a list of the seal numbers is maintained at the field location for at least 2 years.  
**IF NONCOMPLIANCE EXISTS:**  
 Issue a warning (W) INC if:  
 1. The field location is not made available for inspection by MMS representatives.  
 2. A list of seal numbers is not maintained at the field location for at least 2 years.  
**INSPECTION COUNT/ INC COUNT:**  
 Enter one item checked/ issue one INC for each meter site inspected.
- M-304 ARE ALL METER STACK COMPONENT CONNECTIONS, FROM THE BASE OF THE STACK TO THE REGISTER, SEALED IN SUCH A MANNER THAT TAMPERING CANNOT OCCUR WITHOUT DESTROYING THE SEAL?**  
**Authority: 30 CFR 250.1205(b)(1)(i) Enforcement Action: W/C INSPECTION**  
**PROCEDURE:**  
 Verify by on-site inspection that all meter stack component connections are sealed in such a manner that the component cannot be opened, closed, or altered in any way without destroying the seal.  
**IF NONCOMPLIANCE EXISTS:**  
 Issue a warning (W) INC if seal has been broken and records do not address reason or justification. Issue a component shut-in (C) INC if a meter stack component connection is not adequately sealed.  
**INSPECTION COUNT/ INC COUNT:**  
 Enter one item checked/ issue one INC for each meter inspected.
- M-305 ARE SAMPLING SYSTEMS, INCLUDING PACKING DEVICES, FITTINGS, SIGHT GLASS, AND CONTAINER LIDS, SEALED IN SUCH A MANNER THAT TAMPERING CANNOT OCCUR WITHOUT DESTROYING THE SEAL?**  
**Authority: 30 CFR 250.1205(b)(1)(ii) Enforcement Action: W/C**  
**INSPECTION PROCEDURE:**  
 Verify by on-site inspection that the meter sampling system, including packing device, fittings, sight glass, and container lid, is sealed in such a manner that the component cannot be opened, closed, or altered in any way without destroying the seal.  
**IF NONCOMPLIANCE EXISTS:**  
 Issue a warning (W) INC if seal has been broken and records do not address reason or justification.  
 Issue a component shut-in (C) INC if the sampling system and its components are not adequately sealed.  
**INSPECTION COUNT/ INC COUNT:**  
 Enter one item checked/ issue one INC for each meter inspected.



