December 14, 2015

VIA ELECTRONIC FILING

Director Neil Kornze
U.S. Department of the Interior
Bureau of Land Management
Mail Stop 2134 LM
1849 C Street, NW
Washington, D.C. 20240

Re: Docket No. BLM-2015-0005(Onshore Order No. 5): Proposed Rule on Onshore Oil and Gas Operations; Federal and Indian Oil and Gas Leases; Measurement of Gas; Federal Register Vol. 80. No. 197 (Tuesday, October 13, 2015); RIN 1004-AE17

Dear Director Kornze:

The Gas Processors Association (GPA) appreciates the opportunity to submit comments on the Bureau of Land Management's (BLM) proposed rulemaking "Onshore Oil and Gas Operations; Federal and Indian Oil and Gas Leases; Measurement of Gas," 80 Fed. Reg. 61646 (October 13, 2015).

GPA has served the U.S. energy industry since 1921 as an incorporated non-profit trade association. GPA is composed of over 100 corporate members of all sizes that are engaged in the gathering and processing of natural gas into merchantable pipeline gas, commonly referred to in the industry as "midstream activities." Such processing includes the removal of impurities from the raw gas stream produced at the wellhead, as well as the extraction for sale of natural gas liquid products ("NGLs") such as ethane, propane, butane and natural gasoline. GPA members account for more than 90 percent of the NGLs produced in the United States from natural gas processing. Our members also operate hundreds of thousands of miles of domestic gas gathering lines and are involved with storing, transporting, and marketing natural gas and NGLs.

BLM's proposed rule is intended to replace Onshore Oil and Gas Order Number 5, Measurement of Gas with new regulations. Order 5 establishes minimum standards for accurate measurement and proper reporting of all gas removed or sold from Federal and Indian leases (except the Osage Tribe), units, unit participating areas, and areas subject to communitization agreements by providing a system for production accountability by operators, lessees, purchasers, and transporters. This proposed rule includes requirements for the hardware and software related to approved metering equipment, overall measurement performance standards, and reporting and record keeping. The proposed rule identifies certain specific acts of noncompliance that would result in an immediate assessment and provides a process for the BLM to consider variances from the requirements of this proposed rule.

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GPA requests that BLM withdraw the proposed rule due to the negative impacts it will have on the midstream sector. As the proposed rule is currently drafted, it would require affected parties to remove equipment that is functioning properly and measuring accurately. Changing equipment out because it was built to an older standard does not mean the measurement will give a different answer. Change for the sake of change with no improvement is wasteful, will pose unnecessary costs on the midstream sector, and will cause operational delays.

If BLM does move forward with finalizing the rule, GPA requests that BLM add a grandfathering clause to exempt equipment with measurement results within BLM's desired overall performance. Since there is no grandfathering clause in the proposed rule, facilities with equipment that do not meet the current AGA or API recommendations likely will either be replaced or abandoned. This represents an undue burden on regulated entities.

The order of our comments below does not necessarily reflect the relative importance to GPA members, rather the order reflects the organization of the proposed rule.

3175.10 Definitions and Acronyms:

(a) AO: There is no definition of AO
(b) CA: There is no definition of CA
(c) Certainty: There is no definition of Certainty
(d) FMP: There is no definition of FMP
(e) PA: There is no definition of PA
(f) PMT: There is no definition of PMT
(g) Uncertainty: There is no definition of Uncertainty

3175.31 Incorporation by Reference:

Many API MPMS Chapters are not incorporated. These include, but are not limited to Chapter 1, the balance of Chapter 14, the balance of Chapter 21 and the balance of Chapter 22

3175.40-45 Measurement Equipment Approved by Standard or Make and Model:

The explanation of these sections indicates the same type of process for equipment approval (type testing) found in 80 Fed. Reg. 58952 (September 30, 2015), otherwise known as the proposed replacement to On-Shore Order 4: The Measurement of Crude Oil. This type testing will effectively eliminate the use of equipment that is functioning properly yet is out of manufacture or obsolete. Replacement of equipment that is otherwise functioning properly presents an undue burden to producers and transporters. To prevent this undue burden, properly functioning equipment that is out of manufacture or obsolete should be grandfathered and exempted from this rule.

3175.48 Linear measurement devices:

This section is an example of the worrisome language of §3175 in that the BLM "may" approve linear devices such as ultrasonic meters. §3175 is written entirely for orifice meters. The gas industry is using ultrasonic meters in more and more applications. §3175 provides for an extensive type-testing process for the BLM to approve the use of equipment. Ultrasonic meters have been used by the gas industry for a number of years; however, the proposed regulations will stagnate technological advances in gas measurement on federal and Indian lands. §3175 should be re-written to reflect the current state of gas measurement. Otherwise, §3175 is not an improvement on the existing On-Shore Order 5.

3175.60 Timeframe for Compliance:
The proposed timeframe for compliance does not take into account: (1) delivery times for equipment changes; (2) delivery times for the as yet to be developed flow computers; and (3) the time required by affected parties to implement the required accounting changes. The BLM should allow companies two (2) years to begin implementation – still on a phased-in approach.

3175.60(b)(2) Timeframe for Gas analysis reporting:
BLM proposes that all gas analysis reporting requirements will become effective immediately upon the issuing of the final regulations. This presents a number of problems. First, BLM has not finished the GARV system. Second, because BLM has not finished the GARV system, affected parties are unable to make software changes that will allow said affected parties to comply with this requirement. Third, the gas chromatographs meeting the BLM's new requirements will have neither been purchased nor upgraded until after the regulation is final. Fourth, the reporting is part of an affected party's accounting system – which, may take as much as two (2) years to modify. Lastly, as pointed out previously, there are no flow computers installed which will comply with the FM requirements. Therefore, the reports will be incomplete until FMP compliant flow computers are available and can be integrated into the affected parties accounting and laboratory systems.

3175.80 Flange-tapped orifice plates (primary devices): [Adoption of MPMS 14.3]:
3175.80 conflicts with other sections on sampling and the BLM's expressed intent. By adopting MPMS 14.3, the BLM is requiring single-phase fluid flow through the primary device. Unfortunately, other sections of this proposed regulation are written with the expectation of free liquids flowing through the system and being sampled by the analyzer (hence, the requirement to remove filters from analyzer sample probes) with the analyses being used for the calculation of BTU content and gravity. The adoption of MPMS 14.3 is appropriate for the accurate measurement of natural gas.

3175.80(b) Flange-tapped orifice plates (primary devices): [Orifice Bore]:
3175.80(b) specifies a minimum orifice bore of 0.45 inches. There are many orifice plates with smaller bores. By limiting the minimum orifice plate bore to 0.45 inches, the BLM is requiring affected parties to replace entire meter tubes (because of beta ratio requirements). This presents an undue burden to the affected parties. While limiting future orifice plate bores to 0.45 inches may be a reasonable approach, the BLM should exempt existing orifice plates with smaller bores.

3175.80(d) Flange-tapped orifice plates (primary devices): [Inspection]:
3175.80(d) states the operator must pull and inspect the orifice plate at intervals of one (1) to twelve (12) months, depending on flow-rate, with the larger flow orifice plates being inspected more frequently. For wells with Senior Fitting orifice plates, these requirements appear to be reasonable. However, for those wells whose orifice plates are not the Senior Fitting type, the requirement means producers must be blocked in, flanges loosened and tightened, a gas stream vented to the air and repressuring the orifice run. These activities are more prone to incidents and increase the exposure of measurement personnel to such incidents. Therefore, the stated requirements should be only for Senior Fitting orifices. For other orifice installations, inspections on a one (1) or two (2) year interval would seem more reasonable.

3175.80f Flange-tapped orifice plates (primary devices): [Meter tube length]:
3175.80f requires all non-marginal flow meter tubes to meet the current API MPMS 14.3 requirements. This will mean that all non-marginal flow meter tubes built to the pre-1985 AGA Report 3 requirements will need to be replaced. This will place an undue burden on affected parties. In addition, this regulation does not take into account the number of meter tubes that will need to be manufactured and installed in a very short period of time. Affected parties will be bidding for a limited supply. A better solution is to make all future meter tubes meet the new requirement.

3175.80k Meter tube lengths:
3175.80k specifies the placement of flow conditioners. Like 3175.80f, 3175.80k will place an undue burden on affected parties by requiring the replacement of many existing tubes and flow conditioners. In addition, this regulation does not take into account the number of meter tubes and flow conditioners that will need to be manufactured and installed in a very short period of time. Affected parties will be bidding for a limited supply. A better solution is to make all future meter tubes meet the new requirement.

3175.102(a)(2) Verification and calibration of electronic gas measurement systems – Verification after installation or following repair:
3175.102(a)(2) incorporates by reference API MPMS 21.1.7.3.3 ("Secondary Devices Commissioning") and 21.1.8.2.2.2 ("Verification Tolerance"). API MPMS 21.1.8.2.2.2 states, in part, that "if the device verification cannot be brought into tolerance by zeroing, after the verification is complete, the transmitter shall be calibrated or replaced." However, the Bureau has added additional language stating "If any of these as-left readings vary from the tolerance determined by API 21.1.8.2.2.2, Equation 24, …, then that transducer must be replaced and retested under this paragraph." This language could be interpreted to mean that anytime a transmitter is found to be out of tolerance as compared to the prior calibration, the transmitter must be replaced. In other words, the language added by the Bureau adds confusion to the issue. Therefore, the cited sentence should be deleted.

3175.102g Verification and calibration of electronic gas measurement systems:
3175.102g states that volume report corrections must be made if the transducer calibration resulted in a change greater than 2% or 2 Mcf/day, whichever is less. While the 2% would appear to be reasonable, the 2 Mcf/day is onerous. With natural gas at $2.50 per million Btu, a 2 Mcf change represents approximately 2 million Btu per day or $5 per day. This would mean that almost all volume report corrections would have to be re-written. The 2Mcf/day is appropriate for marginal wells. A better solution would be to replace "whichever is less" with "whichever is greater." In that way, large wells would not be impacted by the small 2 Mcf limit.

3175.103(a)(2) Flow rate, volume, and average value calculations:
3175.103(a)(2) states that for meters other than flange-tapped orifice plates the Bureau's PMT (an undefined term) will establish the calculations used to determine flow rate, volume and average value, based on the primary device make, model, size and area ratio. This establishes the PMT as more knowledgeable than either AGA or API. Rather than the PMT establishing these calculation methods, the language should state that the values of the meters other than flange-tapped orifice plates shall be those calculations established by either the AGA or the

API. This will also require the BLM to work with manufacturers and software providers to implement the flow equations chosen by BLM.

3175.104(a) Logs and Records:
The section-by-section analysis indicates that data submitted to the BLM that was generated by third-party software would not meet the requirements of this section and the BLM would not accept it. Third-party software exists that is able to represent original, unaltered, unprocessed, and unedited daily and hourly data. BLM should allow for the use of third-party software that meets the requirements of 3175.104. This rule may preclude the use of third-party software that is widely used and capable of meeting the specified requirements.

3175.112(b) Sampling probe and tubing:
3175.112(b) places the location of the sample probe 1.0 – 2.0 downstream lengths (industry refers to this as pipe diameters) from the primary device. There are at least three issues with this language. First, API MPMS 14.3.2 deals only with square-edged orifice meters. The cited language will not work with other types of meters. Second, there are many instances where sample probes have been installed and located in buildings which are outside of the required length. Third, the sample probe location chosen is within the vena contracta pressure recovery portion of an orifice run (note: the vena contract length is based on the velocity of the meter, which makes a fixed location impractical). Because affected parties may change the orifice plate size, the exact location of the vena contract length varies with flow conditions and orifice size. The BLM should produce any data it has supporting a one-size fits all approach to sample probe placement. In addition, this language will mean moving those probes (which will cost more than the BLM estimated in its Economic Analysis). At a meeting facilitated by the API, the BLM representative indicated this was to be able to capture free liquids. However, the measurement of gaseous hydrocarbons requires the gas entering the measurement device to be liquid free. Therefore, the movement of the sample probe is unnecessary and burdensome. This language should be stricken.

3175.112(c)(4) Sample probe and tubing – Sample probe design and type:
At the aforementioned API facilitated meeting, BLM representatives indicated this provision was to allow entrained liquids to enter the sample and GC. There are a number of issues with this language. First, it conflicts with 3175.113(d)(iii)(2) which requires filters on the inlet of the GC to be cleaned or replaced. These filters will prevent liquids from entering the GC and, thus, prevent expensive repairs to the GC. Second, the language ignores the requirement that the gas entering the meter be liquid free. Third, the filters exist not only to prevent any entrained liquids in the sample but also to prevent debris from entering the sample delivery system. Lastly, API 14.3, which is incorporated by reference, indicates the filtration is an industry practice.

3175.113(c)(4) Sample cylinder requirements:
3175.113(c) gives the requirements for sample cylinders. 3175.113(c)(4) states that sample cylinders must be physically sealed in a manner that prevents opening the sample cylinder without breaking the seal before sampling. To our knowledge, there are no sample cylinders meeting this requirement. If that is so, once a suitable means of sample cylinder sealing is developed, the industry will be bidding up the cost so as to not receive some penalty. In addition, this rule presumes the sampling without a seal is erroneous. That is akin to being guilty until proven innocent. This provision should be eliminated.

3175.120 (e) Gas analysis report requirements:
In 3175.120 (e), BLM proposes that all gas analysis reporting be done within five (5) days of the analysis. 3175.60(b)(2) makes this requirement effective immediately upon the issuance of the final regulation. As pointed out previously, this presents a number of problems. First, BLM has not finished the GARV system. Second, because BLM has not finished the GARV system, affected parties are unable to make software changes that will allow said affected parties to comply with this requirement. Third, the gas chromatographs meeting the BLM's new requirements will have neither been purchased nor upgraded until after the regulation is final. Fourth, the reporting is part of an affected party's accounting system – which, may take as much as two (2) years to modify. Lastly, as pointed out previously, there are no flow computers installed which will comply with the FMP requirements. Therefore, the reports will be incomplete until FMP compliant flow computers are available and can be integrated into the affected parties accounting and laboratory systems.

3175.126(a)(1) Reporting of Heating Value and Volume:
The water content of the typical low pressure natural gas that is gathered from BLM leases has water content that is at saturation levels or close to saturation. Dehydrators are uncommon at the wellhead, so the water content of the gas is never dry. Requiring application of a dry heating value to a volume that includes water vapor is a bias resulting in overstated energy values.

3175.131-.135 Transducer Testing and 3175.142-144 Flow computer software testing:
These sections work in conjunction with 3175.40 – 48 (so called "type-testing") and detail testing regimens for the inclusion of a new transducer or flow computer software on the Bureau's approved list, which will be posted on the Bureau's website. These regulations allow the Bureau to supersede such organizations as ANSI, ISA, NFPA, GPA and API, which all, in various forms, have specifications regarding the performance of electronic products.

3175.150 Immediate assessments:
3175.150 grants the BLM the right to "impose" immediate assessments for certain listed violations, with each having a penalty of $1,000.

GPA objects to the provisions of 3175.150 based on the following:

1. Because the regulations do not specify whether or not immediate assessments are appealable, must be paid immediate, etc., the use of immediate assessments could be construed to bypass the Constitutional provisions for due process.
2. The rules by which the BLM will assess violations do not appear to be transparent. The proposed rule states that the BLM will develop an internal handbook and that the handbook will be in place by the effective date of the final rule.
3. The immediate assessment may give the BLM "two bites at the apple," as there is no provision that BLM may not issue both immediate assessments and later violations based on the aforementioned handbook of violations.

Recommendations:

1. BLM should drop this provision and rely solely on the violation handbook.

2. BLM should develop the handbook through the comment process used for promulgation of regulations.
3. Once developed, the BLM should post the handbook on the website.

Grandfathering:
The BLM is not allowing grandfathering. The stated reason is that grandfathering would result in two classes of equipment: older and newer. As a result, BLM would need to know two standards – old and new. In lieu of grandfathering, BLM is proposing a phase-in period. However, BLM's refusal to allow grandfathering places an unnecessary cost burden on producers and transporters. As pointed out above, the cost to retrofit equipment built to older standards will be in excess of $10,000 per well – much more than the cost estimated by BLM. Further, BLM is already keeping records on existing wells. Only new wells should have the new standards. This will allow BLM its own phase in period – especially as depressed oil and gas prices have reduced drilling activities in the United States.

FMP:
The requirement to use an FMP would seem to be very innocuous. However, BLM proposes an 11 alphanumeric character FMP. This FMP would be required to be labeled on all equipment and shown on all documents, whether electronic or paper, submitted or available to the BLM. We believe this will be accomplished in the flow computer and accounting systems of producers and transporters. There is no installed flow computer capable of utilizing an 11 character tag name. In addition, once a flow computer is developed, every producer and transporter will be scrambling to purchase the limited quantity. Also, every producer and transporter will be required to modify their accounting systems to accommodate this change. This will take a number of years to complete and put a strain on available software manpower.

Economic and Threshold Analysis Comments:

(a) The Economic and Threshold Analysis ("ETA") has a number of flaws which lead to erroneous conclusions. The following is an estimate based on a hypothetical transportation company – Transporter Co:
   a. A typical 3" natural gas meter skid costs about $35,000 sitting in a shop. We recognize there are no "skids," but this represents shop fabricated assemblies. The big picture cost breakdown would be:
      i. Skid: $10,000
      ii. Meter tube: $8,000
      iii. Electronics package: $10,000, of which $2,500 is the flow computer
      iv. Sampling/Analysis/Communications: $7,000
      v. Total: $35,000
   b. For installation, Transporter Co sees a typical multiplier of 2.5:1.
   c. Meter Tubes
      i. Tube replacements: 40% of Transporter Co's meter tubes will need to be replaced.
      vi. Tube modifications: about 40% of Transporter Co's meter tubes will require modification. Because shop fabrication is much cheaper than

field fabrication, Transporter Co will shop fab meter tubes and replace the tubes requiring modifications

vii. Total cost:
   1. Parts: 80 x $8,000 = $640,000
   2. Installation: $640,000 x 2.5 = $1,600,000
   3. Sub-total = $2,240,000

d. Electronics (flow computers): All of Transporter Co's flow computers will need to be replaced. 80% of Transporter Co's flow computers are out of manufacture and will not be on the approved list. 100% of Transporter Co's flow computers will not accept an 11 character tag name. 100-% have no provisions for a 2nd tag name. Because company policy requires equipment to comply with company and industry name requirements (such as Instrument Society of America), the company will have one tag name and the BLM a 2nd tag name.
   i. Equipment Cost: 100 x $2,500 = $250,000
   ii. Installation Cost: $250,000 x 2.5 = $625,000
   iii. Sub-total: $875,000

e. Sample Point Relocation: About 50 of Transporter Co's sample points will have to moved. While the BLM estimated this cost at $100, Transporter Co believes the cost to be more like $2,500 when one figures the time requirements and personnel requirements for shutting down the well, purging the meter tube, cutting, welding and repiping the sample point. Also, Transporter Co is concerned for the safety of their personnel because these types of operations are more dangerous than routine operations.
   i. Cost: 50 x $2,500 = $125,000

f. Other Pipe Modifications: Because of the other piping requirements (such as stainless steel tubing and minimum sizes), Transporter Co will be modifying the other piping on 35 of its meter runs. Because this is in the field and requires 2 people (safety concerns), the cost per meter run is about $2,500.
   i. Cost: 35 x $2,500 = $87,500

g. Gas Chromatographs: Because of the increased amount of sampling, Transporter Co will be buying an additional Gas Chromatograph.
   i. Cost: $70,000

h. Personnel: Because of the number Vehicles: The inspections required will require the addition of a field technician. The increased lab samples will require the hiring of 1 lab technician (unfortunately, we can't hire partial lab techs).
   i. Cost (including benefits):2 x $150,000 = $300,000 per year

i. Vehicles: Because of the number of inspections required and samples required, Transporter Co had to hire an addition field technician. That technician will require a vehicle – typically, a heavy-duty ¾ ton 4-wheel drive.
   i. Cost: $70,000

j. Borescopes: Transporter Co does not borescope its meter tubes. Therefore, Transporter Co will be purchasing a borescope.

i. Cost: $60,000

k. Accounting Systems: Transporter Co moves a number of products – not just natural gas for the BLM. Transporter Co's accounting system is a combination of major supplier software and home-grown systems. Transporter Co has 2 software developers. These 2 developers will require 2 calendar years to modify the system – remember, custom systems and support of existing operations. The hourly cost: $100 per person per hour. If only ½ their time goes to this effort, the cost will be:
   i. Cost: $416,000

l. Total:
   i. Transporter Co's cost for 100 wells: $4,243,500 or $42,435/ well

m. Benefit: Transporter Co monitors the gain/loss on all of its systems. Currently, they are averaging less than +/-0.25% gain/loss on their systems. Therefore, spending even $1 will not improve the results. Further, Transporter Co's gain/loss numbers indicate they are slightly over-counting the amount of gas coming from wells. **If there is any improvement in measurement, it will mean less revenue to the various Indian tribes, governments, producers and other equity owners.**

(b) Given that BLM lands have over 60,000 gas wells, the analysis above shows the industry impact of these proposed regulations at well over $100,000,000.

Conclusion

GPA appreciates the opportunity to submit comments on the proposed rule. We look forward to working with BLM as the process moves forward. Please contact me at (202)279-1664 or mhite@gpaglobal.org if GPA can be of assistance.

Sincerely,

Matthew Hite
Vice President of Government Affairs
Gas Processors Association