U.S. Department of the Interior
Bureau of Land Management

Fact Sheet – Methane Waste Prevention Rule

November 15, 2016

OVERVIEW: The Bureau of Land Management (BLM) has updated its regulations to reduce the waste of natural gas from flaring, venting, and leaks from oil and gas production operations on public and Indian lands. The final requirements, which will be phased in, will help curb waste of our nation's natural gas supplies; reduce harmful air pollution, including greenhouse gases; and provide a fair return on public resources for federal taxpayers, Tribes, and States.

The BLM's final rule requires oil and gas producers to take commonsense and cost-effective measures to reduce this waste of gas, modernizing the existing, more than 30-year-old oil and gas production rules and bringing them in line with technological advances in the industry. In addition, the rule modifies the existing royalty rate provisions to better align with the BLM's authority and enhance flexibility, but the rule would not raise royalty rates.

FACT: The BLM's onshore oil and gas management program is a major contributor to our nation's oil and gas production. Domestic production from almost 100,000 federal onshore oil and gas wells accounts for five percent of the nation's oil supply and eleven percent of its natural gas. In Fiscal Year 2015, the production value of this oil and gas was worth almost $21 billion and generated over $2 billion in royalties.

FACT: Large quantities of natural gas are wasted during oil and gas production. Between 2009 and 2015, oil and gas producers on public and Indian lands vented, flared and leaked about 462 billion cubic feet (Bcf) of natural gas. That's enough gas to supply about 6.2 million households for a year. These losses create a myriad of problems, including: releasing harmful emissions, including methane, into the atmosphere; safety issues, if not properly handled; and waste of a valuable domestic energy resource.

FACT: Taxpayers are losing out. States, Tribes and federal taxpayers also lose royalty revenues when natural gas is wasted – as much as $23 million annually in royalty revenue for the Federal Government and the States that share it, according to a 2010 Government Accountability Office (GAO) report.

FACT: The rule minimizes waste of natural gas. The final rule will save and put to productive use up to 41 Bcf of gas a year – enough to supply up to about 740,000 households each year. Overall, the rule will reduce flaring by an estimated 49 percent and venting and leaks by roughly 35 percent (compared to 2014 rates).

FACT: Inaction is not an option. Methane, a powerful greenhouse gas about 25 times more potent than carbon dioxide, accounts for nine percent of all U.S. greenhouse gas emissions, and almost one-third of that is estimated to come from oil and gas operations. U.S. methane emissions are projected to rise substantially without additional steps to lower them. Several states, including North Dakota, Colorado, Wyoming, Utah and most recently Pennsylvania, as well as the U.S. Environmental Protection Agency (EPA), have also taken steps to limit venting, flaring and/or leaks.

FACT: The rule will reduce emissions that worsen climate change. BLM estimates that this rule could avoid an estimated 175,000-180,000 tons of methane emissions per year, roughly equivalent to 4.4-4.5 million metric tons of carbon dioxide emissions. This is also roughly equivalent to eliminating the greenhouse gas emissions from 924,000 to 950,000 vehicles.

FACT: The rule's benefits are projected to outweigh its costs. Using conservative assumptions, the BLM estimates that the rule's net benefits could range from $46 to $204 million per year. Benefits include revenues for operators from sale of recovered natural gas and environmental benefits of reducing methane emissions and other air pollutants.

FACT: Impacts to operators are expected to be minimal. Many oil and gas operators are voluntarily taking steps required in the rule to reduce wasted gas and improve operations. The BLM estimates that the annual cost to industry of implementing the rule will be $110-279 million. Individual, small business operators may see profit margins reduced by less than two-tenths of one percent, on average. About 40 percent of natural gas now vented or flared from onshore Federal leases could be economically captured with currently available technologies, according to the 2010 GAO report.

FACT: The rule reflects stakeholder outreach through public meetings and tribal consultations. The BLM conducted public and tribal meetings in 2014 and again in 2015 during the public comment period. The BLM received over 300,000 comments on the proposed rule. The BLM has also coordinated with individual states, as well as the Environmental Protection Agency, to avoid inconsistency or redundancy in regulations.

FINAL RULE OVERVIEW

The Mineral Leasing Act requires the BLM to ensure that operators "use all reasonable precautions to prevent waste of oil or gas." Important elements of the final rule include:

LIMITING ROUTINE GAS FLARING

Until now, there has been no upper limit on how much an operator can flare. The rule requires operators to capture most of their gas after accounting for specified volumes of allowed flaring.

- Capture targets phase in from 2018-2026 from 85% to 98% of associated gas produced from development oil wells (i.e., targets don't apply to exploratory wells, well testing).
- Capture targets do not apply to "flaring allowable" volumes, which phase down from 2018-2025 from 5,400 Mcf/per well to 750 Mcf/per well, on average across operations in a state.
- Capture targets can be met lease-by-lease or through averaging state-wide across all of an operators' operations on federal and Indian leases.
- Excess flaring beyond the capture targets pays royalty and is subject to enforcement.
- Provides for alternative requirement if meeting capture target would cause an operator to cease production and abandon significant recoverable reserves under a lease.
- Operators could comply with the proposed flaring limits by: expanding gas-capture infrastructure (e.g. installing compressors to increase pipeline capacity, or connecting wells to existing infrastructure through gathering lines); adopting alternative on-site capture technologies (e.g. compressing the natural gas or stripping out natural gas liquids and trucking the product to a gas processing plant); or temporarily slowing production at a well to minimize losses until capture infrastructure is installed.
- Also improves disclosure of flared volumes by requiring measurement (through meters or calculation based on gas-to-oil ratio) when flared volumes reach 50 Mcf/day.

PRE-DRILLING PLANNING FOR GAS CAPTURE

Until now, we had no mechanism to better align timing of well development and pipeline installation.

- Before drilling a development oil well, operators would need to evaluate opportunities for gas capture and prepare a waste minimization plan, which must be submitted with an Application for Permit to Drill.
- The plan must meet various requirements, and must be shared with midstream gas capture companies to facilitate timely pipeline development, but plan details would not be enforceable elements of the permit to drill.

DETECTING LEAKS

- The rule requires operators to use an instrument-based leak detection program to find and repair leaks. Operators may use infrared cameras, portable analyzers assisted by audio, visual and olfactory inspection, or other methods approved by the BLM.

- Operators must conduct inspections semi-annually for all sites except compressor stations, and quarterly for compressor stations.
- This tracks EPA's fugitive emissions requirements for new wells and facilities, and is similar to leak detection and repair requirements in Colorado and Wyoming.
- Operators in compliance with EPA fugitive emissions requirements for new wells would be deemed in compliance with the BLM requirements.
- Provides for alternative requirement if meeting the limit would cause an operator to cease production and abandon significant recoverable reserves under a lease.

REDUCING VENTING

- Except in narrowly specified circumstances, operators may not vent natural gas. Exceptions include emergencies and venting from certain equipment subject to limits.
- Operators must replace "high bleed" continuous pneumatic controllers with low/zero bleed controllers within one year, tracking requirements in Colorado and Wyoming.
- Operators must replace pneumatic diaphragm pumps with solar pumps, if adequate for the function, or route the pumps to a flare (if one is available on-site) within one year. This is similar to Wyoming requirements and EPA requirements on new pumps.
- Within one year, operators must capture or flare gas from storage tanks that vent more than six tons of volatile organic compounds (Volatile Organic Compounds)/year. This affects only the highest venting tanks and is similar to EPA requirements for new tanks and Colorado and Wyoming requirements for new and existing tanks.
- Operators unloading liquids from wells would be required to use best management practices– e.g., optimize automated plunger lift systems to reduce venting; stay on site during manual purging.
- Operators must capture, flare, use, or re-inject gas released during well completions, but operators in compliance with EPA's similar requirements would be deemed in compliance with the BLM requirements.
- An operator may be exempted by demonstrating that compliance with the requirement would impose such costs as to cause the operator to cease production and abandon significant quantities of recoverable reserves under the lease.

CLARIFYING AND REVISING ROYALTY RATES

- The rule revises existing royalty provisions for onshore oil and gas leases to specify a royalty rate at or above 12.5 percent for new competitive leases, consistent with the statutory authority in the Mineral Leasing Act. The prior regulation specified a rate of 12.5 percent and left the BLM no discretion to raise the rate as conditions change.
- This responds to findings and recommendations in audits from the Government Accountability Office and Department of Interior Office of Inspector General.
- The BLM is not currently raising royalty rates for new competitive leases.
- The rule also clarifies that royalties apply only to gas flared from wells already connected to gas capture infrastructure. This removes the burden on operators to submit applications for approval to flare royalty-free.

INTERACTION WITH STATE AND TRIBAL RULES

- States/tribes may be granted a variance, which applies state/tribal regulations in lieu of provisions of BLM regulations.
- The BLM may grant a variance if the State/tribe shows that the State/tribal rule will perform at least as well as the provisions of the BLM's rule in reducing waste, reducing environmental impacts, and ensuring safe production.

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