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Bureau of Land Management Issues Rule to Reduce Wasted Gas from Oil and Gas Operations

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On March 27, 2024, the Department of the Interior's (DOI) Bureau of Land Management (BLM) released a final rule to reduce the waste of natural gas from oil and gas operations on federal and Tribal land.[1] The rule requires operators on federal and Tribal lands to take steps to reduce natural gas waste, develop leak detection and repair plans, and pay royalties on certain natural gas losses. The final rule is based on BLM's statutory authority and reflects public comments on the proposed rule. The final rule replaces the 40-year-old rule (NTL-4A), is effective 60 days after publication in the Federal Register, and its requirements will phase in over 18 months. Importantly, this final rule comes as oil and gas operators are preparing to comply with EPA's methane regulations for the oil and gas sector and the Inflation Reduction Act's methane Waste Emission Charge.[2] Operators on federal and Tribal lands will need to comply with both EPA and BLM regulations.

In this piece, I briefly review BLM's statutory authority, components of the rule, and discuss how this rule will interact with EPA's methane regulations for oil and gas. EELP summarized BLM's proposed rule issued in November 2023, including its legal basis and regulatory history.

Background

The Bureau of Land Management oversees more than 245 million acres of public land and 700 million acres of subsurface mineral estate and runs a program to lease these lands for oil and gas development and to regulate those operations.[3] In addition, BLM regulates oil and gas operations for many Tribal leases "as part of its Tribal trust responsibilities."[4] BLM explains that in recent years, the US has seen a "significant increase" in oil and natural gas production as a result of technological advances, which has been "accompanied by a significant waste of natural gas through venting and flaring."[5] BLM identifies three main sources of lost natural gas in oil and gas production: emissions from pneumatic equipment, venting from oil storage tanks, and leaks.[6] It explains that the final rule will "reduce the waste of natural gas through improved regulatory requirements pertaining to venting, flaring, and leaks."[7]

Statutory Authority

BLM explains that its legal authority rests on "a variety of statutes," including the Mineral Leasing Act (MLA), the Mineral Leasing Act for Acquired Lands, the Inflation Reduction Act (IRA), the Federal Oil

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[1] Bureau of Land Management, Waste Prevention, Production Subject to Royalties, and Resource Conservation, 43 CFR Parts 3160 and 3170 (March 27, 2024), https://www.blm.gov/sites/default/files/docs/2024-03/BLM-Waste-Prevention%20Final-Rule-1004-AE79-Unofficial-Prepublication.pdf (hereinafter "final rule") at 4.
[2] EPA, Standards of Performance for New, Reconstructed, and Modified Sources and Emissions Guidelines for Existing Sources: Oil and Natural Gas Sector Climate Review (Dec. 2, 2023), https://www.epa.gov/system/files/documents/2023-12/eo12866_oil-and-gas-nsps-eg-climate-review-2060-av16-final-rule-20231130.pdf.
[3] Final Rule at 11.
[4] *Id*. at 11.
[5] *Id*. at 12.
[6] *Id*. at 15.
[7] *Id*. at 7.

and Gas Royalty Management Act (FOGRMA), the Federal Land Policy and Management Act (FLPMA), the Indian Mineral Leasing Act of 1938, and others.[8] In promulgating this rule, BLM focuses on its authority to prevent undue waste of gas, recover royalties, and conserve resources. In addition to its statutory authority, BLM describes its "long history of regulating venting and flaring" from oil and gas operations.[9] It notes that, given the legal challenge to the 2016 Waste Prevention Rule, the bureau has written the final rule in a way that "improv[es] upon" the existing regulation, NTL-4A, "in a variety of ways without advancing elements of the 2016 Waste Prevention Rule that were the subject of certain judicial criticism."[10]

Prevent undue waste of gas. First, BLM explains that "the MLA rests on the fundamental principle that the public should benefit from mineral production on public lands," and that a key component of this public benefit is achieved by "minimizing and deterring the waste of oil and gas produced from the Federal mineral estate."[11] The MLA requires oil and gas operators on federal lands to use "reasonable diligence, skill, and care" in their operations and to observe "such rules … for the prevention of undue waste as may be prescribed by [the] Secretary."[12]

Royalty payments. Second, the BLM explains that under FOGRMA, oil and gas operators are "liable for royalty payments on oil or gas lost or wasted from a lease site when such loss or waste is due to negligence on the part of the operator of the lease, or due to the failure to comply with any rule or regulation, order or citation issued under [FOGRMA] or any mineral leasing law."[13] BLM cites the IRA Section 50263, "Royalties on All Extracted Methane," as additional authority for royalty recovery, noting that "for leases issued after August 16, 2022, royalties are owed on all gas produced from Federal land, including gas that is consumed or lost by venting, flaring, or negligent releases through any equipment during upstream operations."[14]

Resource conservation. Finally, BLM explains that "in addition to ensuring that the public receives a pecuniary benefit from oil and gas production from public lands, the BLM is also tasked with regulating the physical impacts of oil and gas development on public lands."[15] Specifically, the bureau explains that the MLA directs the Secretary of the Interior to "regulate all surface-disturbing activities conducted pursuant to any lease" and "determine reclamation and other actions as required in the interest of conservation of surface resources."[16]

Components of the Rule

The final rule includes the following provisions for new and existing oil and gas operations on federal or Tribal lands.

Waste Minimization Plan or self-certification. The final rule states that operators must "[t]ake reasonable measures to prevent waste as part of Application for Permit to Drill."[17] BLM explains that "reasonable measures to prevent waste may reflect factors including, but not limited to, advances in technology and changes in industry practice," and that BLM can require additional measures to

[8] *Id.* at 19.
[9] Final Rule at 26-40.
[10] *Id.* at 41.
[11] *Id.* at 19-20.
[12] 30 U.S.C. 187; Final Rule at 19-20.
[13] 30 U.S.C. 1756; Final Rule at 19-20.
[14] 30 U.S.C. 1727; Final Rule at 20-21.
[15] *Id.* at 22.
[16] 30 U.S.C. 226(g); Final Rule at 22.
[17] *Id.* at 8.

prevent waste.[18] The rule requires operators drilling for oil to submit a Waste Minimization Plan (WMP)[19] or a self-certification statement as part of the application to "avoid situations where oil-well development outpaces the capacity of the available gas capture infrastructure."[20] The WMP, which is intended to "ensure operators have adequately planned to reduce associated gas waste prior to drilling an oil well,"[21] will be subject to the flaring limits established in the rule, or alternately the self-certification requires the operator to state that it will capture 100 percent of the non-emergency flared gas and operators will need to pay royalties for any non-emergency loss.[22]

Limits on royalty-free venting and flaring. The final rule lays out when gas will be considered "unavoidably" lost, and therefore royalties are not owed, and when lost gas is "avoidable" and therefore royalties are owed for that gas.[23] The rule establishes a volumetric threshold for how much royalty-free flaring operators are permitted to do.[24] Royalties are due for flaring that exceeds the rule's threshold.

Leak detection and repair (LDAR). Operators must maintain an LDAR program designed to prevent waste of gas. The LDAR program must include "regular inspections of all oil and gas production, processing, treatment, storage, and measurement equipment on the lease site" and the final rule includes requirements for repairs when leaks are detected.[25] Table 1 compares the BLM LDAR requirements with EPA's LDAR standards.

BLM estimates the final rule will result in over $51 million in new royalty payments and conserve billions of cubic feet of gas.[26] Compared to the proposed rule, the final rule loosens some of the proposed requirements, for example by paring back the information required in the WMP,[27] allowing

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[18] *Id.*
[19] Information required in the WMP includes: "(1) initial oil production estimates and decline, (2) initial gas production estimates and decline, (3) certification that the operator has an executed gas sales contract to sell 100 percent of the produced oil-well gas, and (4) any other information demonstrating the operator's plans to avoid the waste of gas." *Id*. at 96.
[20] *Id.* at 8-9; 42.
[21] *Id*. at 96.
[22] *Id*. at 97. BLM further explains, "The BLM offers the self-certification alternative to accommodate operators who may consider this option an advantageous business alternative while ensuring the public receives a fair return for its oil and gas. An operator might choose to avoid having to submit a WMP because it can be relatively easy to design, build, and operate its facilities to capture all of the gas and sell it. In addition, an operator may want to accelerate drilling and development in lieu of waiting for a gas contract and accept the additional royalty obligation as a business expense should the operator need to flare following drilling and completion." *Id*. at 98.
[23] Specifically, "lost oil or gas will qualify as 'unavoidably lost': lost oil or gas will qualify as 'unavoidably lost' if, as stated in the final rule at § 3179.41, the operator has taken reasonable steps to avoid waste; the operator has complied fully with applicable laws, lease terms, regulations, provisions of a previously approved operating plan, and other written orders of the BLM; and the loss is within the applicable time or volume limits." *Id.* at 9.
[24] The volumetric threshold is set "based on oil production on royalty-free flaring due to pipeline capacity constraints, midstream processing failures, or other similar events that may prevent produced gas from being transported to market. The volumetric threshold is based on the total volume of gas flared in a month divided by the total net volume of oil produced in a month for each lease, unit PA, or CA." *Id.* at 10.
[25] *Id.*
[26] *Id*. at 11-12.
[27] *Id*. at 96.

self-certification in lieu of the WMP,[28] removing the proposed requirement that operators must install low-bleed pneumatic controllers,[29] and removing proposed requirements for oil storage tanks.[30]

Interaction with EPA Methane Rule for Oil and Gas Operators

Now that EPA is regulating new and existing oil and gas under Clean Air Act Section 111, all sources are subject to EPA requirements. Operators on federal and Tribal lands will also need to comply with the BLM rule. Existing sources will be regulated under the BLM rule before the EPA rule comes into effect. Assuming both are upheld by the courts,[31] operators should see that they are distinct based on their statutory mandates, but the requirements are aligned where possible.

BLM states that while it received many comments requesting that the final rule allow operators to use their compliance with EPA OOOO rules to comply with the BLM rule, BLM decided not to allow this approach.[32] However, BLM explains that it "independently determined" that some specific components of the EPA rules are "sufficient to accomplish the BLM's waste prevention mandate," including aligning some of the LDAR provisions as shown in Table 1.[33] Additionally, operators of existing oil and gas facilities will likely need to comply with the BLM requirements, which phase in over the first 18 months of the rule, before they will need to comply with EPA's regulation for existing facilities, likely in early 2029 once state plans are submitted.

BLM and EPA Statutory Authority. Many operators on federal or Tribal lands will need to comply with both the BLM and EPA rules, which are promulgated under distinct statutory mandates and, therefore, prescribe different approaches to regulating emissions. While BLM's mandate focuses on natural gas waste prevention, royalties, and resource conservation as discussed above, EPA's methane pollution control rules are designed to protect public health and the environment under the

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[28] "The BLM has added the self-certification option to the final rule in response to comments that the waste prevention plan requirement is overly burdensome for industry and provides little benefit to the BLM. The self-certification option serves the dual purposes of providing operators with a less burdensome alternative, while simultaneously reducing waste through the encouragement of capture, a term defined in the proposed rule and unchanged in the final rule." *Id.* at 69.

[29] "The requirements for royalty-free use of lease production are found in subpart 3178. Subpart 3178 does not limit the volume of royalty-free use oil or gas so long as the volume is reasonable for the operation. To limit the use of pneumatic controllers and pneumatic diaphragm pumps to less than 6 scf [standard cubic feet] per hour would have created a conflict with 43 CFR 3178. In addition, the BLM considered the practical difficulty in inspecting for and enforcing the requirements of the proposed section, which would obligate the BLM to maintain an extensive database of pneumatic equipment with the manufacturer's advertised bleed rate for enforcement." *Id*. at 174.

[30] *Id*. at 161.

[31] In the DC Circuit, a group of Republican state attorneys general is challenging EPA's methane rule and seeking a stay. Several states and environmental NGOs filed motions to intervene in support of EPA's final rule. *State of Texas et al. v. EPA et al.,* Docket No. 24-01054 (D.C. Cir.).

[32] "The BLM received numerous comments requesting that the BLM allow operators to demonstrate their compliance with BLM requirements by showing that they already comply with EPA's OOOO series rules or State leak detection rules. The BLM considered and rejected this alternative approach to compliance." *Id.* at 165.This contrasts with the BLM's approach in the 2016 waste prevention rule. In 2020, the District Court of Wyoming vacated the 2016 Waste Prevention Rule, finding that the rule was not a reasonable interpretation of BLM's statutory authority. Among other issues, the court found that the rule impinged on EPA's authority under the Clean Air Act because the rule was incompatible with EPA's oil and gas rule's cooperative federalism framework. *Wyoming v. Dep't of the Interior*, 493 F. Supp. 3d 1046, 1065 (D. Wyo. 2020).

[33] Final Rule at 166.

Clean Air Act.[34] Under this authority, EPA's regulations are generally more protective to the environment and public health than the BLM's final rule. BLM explains the reasons its regulations differ based on their statutory mandate: "EPA's requirements are not a substitute for BLM standards because EPA's requirements are focused on controlling GHG (in the form of methane) and VOC emissions, rather than conserving natural gas, and compliance with the EPA's standards will not always reduce the waste of natural gas or assure payment of royalties to the United States or to Indian mineral owners."[35] BLM notes that "[a]lthough operator compliance with those EPA requirements can reduce the waste of natural gas from Federal and Indian leases, they do not supplant the need for BLM standards that are adopted pursuant to the BLM's independent statutory authority and duties."[36]

Flares. BLM explains that while not all flaring and venting can be prevented, the rulemaking intends to "create a practical, royalty-based approach to waste prevention from oil wells that removes the need for an inefficient case-by-case determination of an avoidable/unavoidable loss for gas flaring," which is currently in effect, and "allows for some unavoidable flaring, capped by a practical limit."[37] The rule creates time or volume limits on royalty-free venting and flaring. BLM explains that it is "addressing the problem of intermittent flaring due to pipeline capacity constraints" by requiring royalty payments that will discourage waste.[38]

Gas-well gas cannot be flared or vented, except where it is "unavoidably lost," which the rule defines as certain circumstances during well drilling, completion, tests, emergencies, "normal operating losses" from a pneumatic controller, pump or tank, leaks, maintenance, and other situations.[39] For oil wells, the rule sets a volume limit on flaring after which operators will owe royalties. The threshold for avoidable loss of gas per barrel of oil ratchets down over the first four years that the rule is in effect.[40] BLM notes that the starting threshold of 0.08 Mcf (thousand cubic feet) per barrel of oil produced "would impact the approximately 62 percent of flaring locations responsible for

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[34] BLM explains that "CAA and the MLA pursue different statutory goals, which may, as a general matter, reduce the possibility of conflict among specific regulations promulgated by the BLM and EPA. The successful prevention of the waste of gas may also lead to air quality effects. Nonetheless, we have examined the EPA's methane-related regulations and the EPA's 0000 series rules and have avoided conflict by focusing on the BLM's waste prevention and royalty measurement mandates, while acknowledging ancillary effects to air quality from this final rule. We have found no provision of the final rule that prevents compliance with EPA's regulations." *Id.* at 65.

[35] BLM offers an example of how the EPA rules can in some cases reduce air pollution without reducing loss of gas: "an operator can comply with EPA's requirements for storage tanks by routing the emissions to combustion (i.e., flaring) and therefore eliminating venting from the tanks altogether. That process results in the same loss of gas as venting the gas from the tank. Therefore, while that process reduces air pollution by prioritizing flaring over venting, it does not reduce waste or assure payment of royalties because in either scenario, the same amount of gas is lost." *Id.* at 55.

[36] "Based on its review and analysis of State and EPA regulations, the BLM finds that it is necessary to establish a uniform standard governing the wasteful losses of Federal and Indian gas through venting, flaring, and leaks. The BLM cannot rely on a patchwork of State and EPA regulations to ensure that operators of Federal oil and gas leases consistently meet the waste prevention mandates of the MLA, that the American public receive a fair return for the development of the Federal mineral estate, and that the Department's trust responsibility to Indian mineral owners is satisfied." *Id.* at 55-56.

[37] *Id*. at 131.

[38] *Id*. at 42.

[39] *Id*. at 206-207.

[40] 0.08 Mcf of gas per barrel of oil produced in the first year of the rule, 0.07 Mcf per barrel produced in the second year, 0.06 Mcf per barrel produced in the third year, and 0.05 Mcf per barrel thereafter. *Id*. at 133.

approximately 96 percent of the reported flaring, based on 2019 production data."[41] The rule also provides for 48 hours of royalty-free flaring for emergencies[42] and an additional flaring allowance for well completion.[43]

Along with volume limits, BLM requires that flares have an "automatic ignition system or an on-demand ignition system" and sets requirements for flare measurement and gas sampling for larger flares.[44] BLM will issue an immediate assessment of $1000 "upon discovery of a flare that is venting instead of combusting gas."[45] Finally, BLM allows venting instead of flaring in some situations including when flaring is technically infeasible, in an emergency, and when gas is leaked.[46]

The EPA rule sets flaring limits for new and existing sources. For new sources, the final rule phases out routine flaring of associated gas from newly constructed wells that are developed after the effective date of the rule. EPA explains that when it is possible to plan ahead, EPA expects that at least one of four options to avoid routine flaring will be feasible: routing the gas to a sales line, using the gas as an onsite fuel source, using the gas for another purpose, or reinjecting the gas into a well.[47] For existing wells, EPA requires wells that produce associated gas with over 40 tons per year of methane implement one of the same four options as required for new sources. If the operator demonstrates to EPA that such options are technically infeasible, the gas can be routed to a flare or other control device that achieves at least a 95 percent reduction in methane and VOC emissions.[48] Demonstrating technical infeasibility includes conducting an evaluation of each technology, an explanation of why each is not possible for the well, and certification by a professional engineer or other qualified person.[49]

While both BLM and EPA restrict flaring, BLM has allowed greater flexibility for operators to continue to flare and will assess royalties if operators flare beyond the limit, while EPA restricts flaring to a greater extent and could bring an enforcement action for limits beyond its rule.

LDAR. BLM's final rule requires operators to maintain an LDAR plan to prevent waste of gas, which includes regular inspections at the site. The plan is submitted to the state BLM office for each state in which it operates, with annual updates.[50] The rule specifies three acceptable options for leak detection:

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[41] *Id*. at 134.
[42] "BLM defines an emergency situation as a temporary, infrequent, and unavoidable situation in which the loss of gas is necessary to avoid a danger to human health, safety, or the environment." *Id*. at 159.
[43] *Id*. at 157.
[44] In the final rule, BLM has also extended the timeline for flare measurement and gas sampling to be in compliance for flares measuring less than 6,000 Mcf per month and greater than or equal to 1,050 Mcf per month over the averaging period within 18-months of the effective date of the rule. The BLM estimates that approximately 575 locations will be required to comply with the measurement rules within 18 months of the effective date of the rule. Diligent operators should be able to comply by that effective date. *Id*. at 151.
[45] *Id*. at 130.
[46] *Id*. at 209-210.
[47] Harvard EELP, EPA's Final Methane Rule—Incorporating Advanced Technologies and Emissions Data to Reduce Methane Emissions from the Oil and Natural Gas Sector ("EELP Methane Summary") (Dec. 2023), https://eelp.law.harvard.edu/wp-content/uploads/EELP-EPA-Final-Methane-Rule.pdf at 12-13.
[48] EELP EPA Methane Summary at 12-13.
[49] *Id*.
[50] LDAR plan to include: "1) identification of the leases, unit PAs, and CAs by geographic State for all States within the BLM's administrative State boundaries to which the LDAR program applies; (2) identification of the method and frequency of leak detection inspection used at the lease, unit PA, or CA. Under final rule §

- Quarterly audio, visual, and olfactory (AVO) inspection for well sites that have wellheads but no production or storage, which aligns with EPA requirements;
- bimonthly AVO inspection and quarterly optical gas imaging for well sites with production, processing, or storage equipment, also consistent with EPA requirements; and
- other acceptable methods with adequate frequency, for example, continuous monitoring.[51] This provision may give BLM the opportunity to accept other leak detection technologies and methodologies that EPA might approve.

EPA also requires operators to monitor for fugitive emissions and sets out work practice standards for monitoring and repairing fugitive emission components for four subcategories of well sites and compressor stations.

Table 1 compares the acceptable testing methods and frequencies for each agency. The methods and frequencies for different well site types are largely overlapping. Both agencies allow the use of advanced technologies for detection, though BLM does not explain how it will determine which advanced technologies are acceptable.

Pneumatics. The BLM final rule removes the proposed requirements for low-bleed pneumatics controllers and pumps after "[a]fter reviewing public comments on this section and evaluating the practical implications of enforcement of this section."[52] BLM explains that because the regulations "do not limit the volume of royalty-free use oil or gas so long as the volume is reasonable for the operation," requiring low-bleed pneumatics "would have created a conflict" with existing regulation because they do not provide additional waste reduction.[53] In addition, BLM notes that it "considered the practical difficulty in inspecting for and enforcing the requirements of the proposed section, which would obligate the BLM to maintain an extensive database of pneumatic equipment with the manufacturer's advertised bleed rate for enforcement."[54]

The final EPA rule sets zero emissions standards for process controllers by powering them with electricity, capturing emissions and routing emissions to a process, or by using self-contained controllers.[55]

Many operations on public and Tribal land may be subject to the EPA requirements and need to install zero bleed pneumatics. BLM notes that it "removed requirements for certain equipment from its rule between the proposed and final stage because they did not provide sufficient additional waste reduction. The EPA rules include provisions that cover emissions from these sources."[56]

3179.100(b)(2), acceptable inspection methods and frequency include: (i) well pads with only wellheads and no production equipment or storage must include quarterly AVO inspections for leak detection; (ii) well pads with any production and processing equipment and oil storage must include AVO inspections every other month and quarterly OGI for leak detection; and (iii) other leak detection inspection methods and frequency acceptable to the BLM (e.g. continuous monitoring); (3) identification of the operator's recordkeeping process for LDAR pursuant to final § 3179.102." Final Rule at 168.

[51] *Id*. at 233.

[52] *Id*. at 173-174.

[53] *Id*. at 174.

[54] *Id*.

[55] EELP Methane Summary, Table 7.

[56] BLM, BLM Waste Prevention Rule Fact Sheet, https://www.blm.gov/sites/default/files/docs/2024-03/FACT%20SHEET%20_%20Waste%20Prevention%20Rule%20ka%20CEQ.pdf.