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Submitted via regulations.gov

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RE: Comments on BLM's Proposed Rulemaking on Waste Prevention, Production Subject to Royalties, and Resource Conservation, 87 Fed. Reg. 73588 (Nov. 30, 2022); RIN 1004-AE79 (the Proposed Rule)

Dear Director Stone Manning and Deputy Director Culver:

The American Exploration and Production Council (AXPC) appreciates this opportunity to provide comments and recommendations regarding the above-captioned Bureau of Land Management (BLM) notice of rulemaking.

AXPC is a national trade association representing 32 leading independent oil and natural gas exploration and production companies in the United States. AXPC companies support millions of Americans in high-paying jobs and invest a wealth of resources in our communities. Dedicated to safety, stewardship, and technological advancement, our members strive to deliver affordable, reliable energy to consumers while positively impacting the economy and the communities in which we live and operate.

As part of this mission, AXPC members understand and promote the importance of ensuring positive environmental and public-welfare outcomes and responsible stewardship of the nation's natural resources. AXPC's members are committed to being good stewards of federal and Indian resources and operating in compliance with all federal requirements. In particular, our members work hard every day to fulfill our obligation to prudently and responsibly develop oil and gas resources, including the minimization of waste and the reduction of methane emissions from operations. AXPC member companies produce more than half of U.S. onshore production each year, including many active operations developing federal minerals that will be subject to the Proposed Rule purporting to prevent waste and impacting the basis of royalty generating production.

As such, this Proposed Rule is important to us, and it will have a significant impact on member operations. In reviewing BLM's proposed new rules governing waste prevention and determination of royalties, AXPC acknowledges BLM's efforts to try and work within the

agency's complex statutory authorities and regulatory framework, and within the boundaries of the legal precedent that has arisen upon judicial review of the 2016 proposed regulations, as well as the 2018 regulations.

In these detailed comments, AXPC identifies several overarching concerns that should be addressed, and requests several clarifications of key definitions and issues to make the Proposed Rule more workable, technically feasible, and legally defensible in a manner that provides more regulatory certainty and administrative efficiency to both BLM and industry.

In addition to the issues covered in these comments, AXPC adopts and incorporates by reference the comments submitted by the American Petroleum Institute (API).

I. Request for Second Comment Period on the Proposed Rules

The Proposed Rule raises a myriad of incredibly complex technical, engineering, and operational issues. The complexity of these issues is exponentially compounded when attempting to navigate and analyze in the context of conflicting and competing regulations at the state level, Environmental Protection Agency's (EPA) current and Proposed Rules under 40 CFR Part 60, Subparts OOOO, OOOO(a), OOOO(b), and Emission Guidelines OOOO(c), Bureau of Indian Affairs (BIA) regulations governing Indian lease development, and with BLM's existing regulations in 43 CFR Part 3160.

AXPC and other stakeholders had requested an extension of time for comment on the Proposed Rule as critical to be able to sufficiently address these complex, technical issues and promote a productive and constructive dialog with BLM. This additional time is still needed to identify necessary improvements to make BLM's Proposed Rule workable and legally defensible, and to avoid unintended consequences to the benefit of both BLM and regulated entities.

For this reason, AXPC respectfully requests that BLM afford a second comment period so that more detailed and thorough comments may be submitted. This second comment period should focus on key technical issues that implicate complex engineering and operational issues such as volumetric limits for oil-well gas, high pressure flares, metering technologies and related safety issues, representative sampling, and accurate data to inform the Regulatory Impact Analysis that will provide a defensible cost-benefit analysis.

This additional technical comment period would afford industry experts additional time to provide supporting data to aid BLM in its rulemaking process and allow for a more collaborative dialog and problem-solving approach to ensure a final regulation that is truly effective, efficient, and legally defensible.

II. Executive Summary

AXPC members generally support BLM's goal of minimizing waste of gas and incidentally reducing methane emissions to the atmosphere. AXPC appreciates BLM's efforts to address prior issues raised in court decisions and litigation arising from past iterations of the waste prevention rules, yet several concerns and open issues remain. APXC looks forward to engaging BLM in a collaborative and on-going dialog to address and resolve the issues identified

in this comment letter to ensure that the Final Rule is workable, legally defensible, and achieving the ultimate goals of the rulemaking while also providing regulatory certainty to both BLM and regulated entities.

At the outset, AXPC urges BLM to include the evaluation of economics in making determinations of whether gas losses are royalty-bearing waste in the Proposed Rule. The addition of economic considerations will resolve many of the key operative and legal issues with the Proposed Rule. Without the consideration of economics, the Proposed Rule cannot be viability and consistently implemented by BLM. This significant issue is further exacerbated by the Proposed Rule's complex, multi-tiered analytic framework for evaluating potential waste, without providing objective definitions and parameters to anchor these concepts to a viable and workable regulatory structure. This results in sizeable confusion in terms of implementation, administration, and compliance, creating an undue burden on both BLM and operators.

Notably, the Proposed Rule also conflicts with existing BLM regulations not covered in this rulemaking, State definitions and regulations, and with the fundamental statutory and fiduciary duties the Department of the Interior has to Native American Tribes and the economic development of their oil and gas resources. The Proposed Rule also creates numerous irreconcilable equipment compliance and implementation issues regarding current and proposed EPA rules, and related State emission rules.

Some of these important issues arising from the Proposed Rule, however, can be reconciled and resolved by the inclusion of economic factors in the evaluation of waste, and with clarification and further definition of several concepts to alleviate conflicts with other applicable existing statutory and regulatory authorities. Modest changes to timing for implementation and removal of unnecessarily duplicative provisions will also resolve some conflicts arising from technical and equipment compliance issues related to EPA and state rulemakings.

The absence of economic considerations in the Proposed Rule's regulatory framework is most significant issue confronting BLM. From enactment of the Mineral Leasing Act in 1920 to present, BLM has relied on and successfully implemented an objective application of economic factors to determine whether waste is royalty bearing. The foundational principle of this test is whether an operator has acted responsibly and prudently based upon objective economics: If recovering lost gas would be uneconomic, then the loss would be considered unavoidable.

While the Proposed Rule eliminates the economic criterion, BLM has not proposed to delete the existing definition of "waste," in its regulations governing oil and gas operations. Under this definition, not all lost gas – whether avoidable or unavoidable – qualifies as waste. Moreover, a decision on whether the operator acted prudently necessarily involves an objective economic evaluation.

On top of this existing definition of waste, the Proposed Rule includes a new definitional concept: "unreasonable and undue waste," which would mean a frequent and ongoing loss of gas that could be avoided without causing a greater loss of energy that would occur were the loss to continue unabated. The Proposed Rule did not explain how such a determination could be made without considering economics and did not reconcile its competing definitions of waste and

unreasonable and undue waste. This opaque structure is open to inconsistent and very subjective interpretation.

The Proposed Rule then leaps to a categorical determination that lost gas is unavoidably lost if the operator has not been negligent, has taken prudent and reasonable measures to avoid waste, has complied with all appliable laws and terms, and the gas is lost from only one of fourteen (14) finite and specifically identified operations. While the concepts of prudent operatorship and reasonableness are familiar to operators from BLM's historic, and successful regulation of waste to date, BLM did not explain the connection between undue and unreasonable losses, on the one hand, and prudent and reasonable operations on the other. This interrelationship must be explicitly and cogently addressed and explained in the Proposed Rule.

In yet another provision, BLM proposes that certain amounts of flaring due to pipeline capacity constraints will be deemed unavoidably lost, and larger flaring losses that result in "unreasonable and undue" waste could lead to a BLM order to an operator to shut in a well that still is producing commercial quantities of natural gas, resulting in waste of reservoir resources.

Finally, adding yet another layer of complexity and confusion to the proposed regulatory framework, a proposed provision directs operators to use all "reasonable" precautions to prevent "waste" while authorizing the agency to impose "reasonable" measures to prevent waste as conditions of approval on an Application for Permit to Drill, leaving both BLM and operators to guess at the meaning of "reasonable." This additional layer of subjectivity ensures confusing and inconsistent application, and inevitably arbitrary decisions by BLM.

AXPC understands that BLM may have intended to create a simple, bright-line test without any economic considerations for determining whether gas losses were avoidably lost and are therefore royalty bearing. Unfortunately, what BLM has created is a confusing, multi-faceted analytical tool that attempts to somehow bracket the existing definition of waste with the proposed definition of undue and unreasonable loss absent any real consideration of economics.

Similarly, there are several proposed provisions where AXPC understands the intent and goals of BLM but identifies operative and technical issues that would result in these goals not being achievable. For example, BLM has proposed a definition of high-pressure flares and related requirements that raise significant and highly technical issues, including critical safety and feasibility concerns. BLM's proposed definition for high pressure flares is overly broad and, in some cases, would set up an impossible scenario for operators to satisfy the proposed meter uncertainty standards. Additionally, AXPC's members have several significant safety concerns about the mandatory use of orifice meters on high-pressure flares that necessitate the ability to use other measurement alternatives.

In our comments we also raise concerns about requirements for oil tanks without Vapor Recovery Units (VRUs) to submit an annual compositional analysis. We assert the requirement is unreasonable and unnecessary as estimates of the gas vapor volumes can easily and often better be determined by other means along with all the factors needed in an economic decision to install a VRU. Further, the needed assessment for BLM's purpose can be achieved effectively and economically through a representative sample rather than the program BLM has proposed.

In another example, the agency's proposed definition of "gas well," while concise, would result in many unintended consequences where use of that definition conflicts with state definitions. BLM historically has relied on State Conservation Agency definitions of what constitutes a gas well or an oil well. For BLM now to do otherwise risks calling into question approvals for existing wells, spacing and unitization agreements, commingling approvals and applications, and more. This would create massive uncertainty both about past state decisions and BLM's reliance thereon as well confusion and uncertainty about how the BLM would work with states going forward. AXPC was pleased to hear during the recent virtual briefing that the agency intends to continue relying on state definitions and suggests that deference be made more explicit or inherent.

In a final example, while our members do not oppose the concept of a waste minimization plan, our comments explain how midstream planning and contracts create insurmountable obstacles to providing some of the information sought in the Proposed Rule. In our detailed comments we recommend that the BLM develop a short form plan to accompany APDs and that the agency accept waste minimization plans that cover multiple wells to reduce the administrative burden associated with requiring multiple waste minimization plans.

These are just a few of the complex technical issues addressed in our comments to the extent possible within the comment period provided. For each of these highlighted concerns and others, AXPC provides specific recommendations to make these provisions workable for viable implementation within this document, and in the accompanied section-by-section redline. AXPC regrets that the comment period did not present a sufficient opportunity to meaningfully address all the highly complex and technical elements of the Proposed Rule. We stand ready to work with BLM on these and other technical issues after the comment period has closed but before the agency finalizes its rules. We believe that would lead to more workable and safer rules.

AXPC looks forward to working with BLM to address these important issues and continue a collaborative dialog to make the Proposed Rule workable in a manner that achieves the goals of the rulemaking while providing regulatory certainty for BLM and regulated entities in a legally defensibly manner.

III. General Comments to the Proposed Rule

AXPC recognizes and appreciates BLM's work in developing a new Proposed Rule in response to litigation arising from past iterations of BLM's waste prevention rules. The Proposed Rule responds to several technical concerns raised by industry over the years. Significantly, however, there are several key issues that AXPC members have identified in the Proposed Rule that would benefit from additional clarification, revision, and technical engagement. These key issues are captured in the following general comments.

Each general comment will be presented in the following format: (1) a high-level summary of the comment; (2) a brief explanation of AXPC's proposed revision; and, where applicable, (3) a more detailed commentary that provides legal authorities and supporting technical information for the comment and proposed revision.

In addition to AXPC's key general comments, we have provided a separate Section-by-Section Comments of the rule with proposed redlines, included as **Exhibit A** in this letter.

A. BLM Must Evaluate Economics When Determining Potential Waste and Whether Such Waste is Royalty-Bearing.

1. Comment Summary:

An overarching fundamental issue and concern with the Proposed Rule, which permeates into each of the technical comments below, relates to BLM's removal of economic considerations when reviewing, analyzing, and determining waste. The Proposed Rule appears to provide a complex, multi-tiered analytic regulatory framework for determining whether waste is royalty bearing, yet at each layer of analysis the definitions and operative terms used to guide these analyses become more opaque, subjective, and confusing.

As a result, neither BLM nor operators are provided with any degree of regulatory certainty on how this proposed framework is in fact supposed to work. Under the Proposed Rule, many routine operational issues, beyond the control of a prudent operator, would result in the operator bearing the undue cost of paying royalties for lost gas deemed waste or being required to make the Hobbesian choice of either implementing uneconomic emission controls or abandoning low-level yet commercial production, which also qualify as waste that BLM and prudent lessees are both required to avoid.

AXPC urges BLM to revise the Proposed Rule to include the review and analysis of economic considerations as to whether vented or flared gas is waste, as required under the legislative intent and statutory construct of the Mineral Leasing Act, and long-established regulatory practice and legal precedent. This bedrock statutory and regulatory historic practice, dating back to enactment of the Mineral Leasing Act (MLA) in 1920, provides a solid foundation for ensuring that industry is preventing waste, and that all appropriate royalties are being paid, in a manner that provides regulatory certainty to both BLM and regulated industries.

The inclusion of economic considerations for BLM's evaluation of waste, and whether such waste was unavoidable, or avoidable and royalty-bearing, would provide a streamlined standard that would provide regulatory certainty for both BLM and regulated entities, and not require additional levels of analysis.

In stark contrast, removal of economic considerations runs counter to the fundamental legislative intent and statutory construct of the MLA, and federal court and Interior Board of Land Appeals (IBLA) legal precedent interpreting the MLA.

Generally, "waste" under BLM's historic analysis is lost gas that could have been economically recovered from the leasehold. It is a commercial consideration arising under the lease agreement between a lessor and lessee, and the lessee's responsibility to act as a prudent operator to maximize commercial recovery and minimize waste to the extent economically feasible. By removing economic considerations from the analysis of potential waste, the Proposed Rule's intention appears more focused on reducing the social cost of emissions, which is already addressed in a separate EPA rulemaking. As the courts have upheld, under the MLA, waste is principally a function of economics. It would be inappropriate under the MLA to compel

lessees to capture gas at an economic loss or forgo both gas and oil production altogether. For this reason alone, BLM cannot just cease consideration of economics.

Based on the Proposed Rule and its Preamble, it appears that BLM believes it is simplifying the waste determination process by creating a bright-line test with 14 finite categories of unavoidable waste without inclusion of any economic considerations. In reality, however, the Proposed Rule creates a complex, and confusing, multi-tiered analytic process where the definitional concepts do not dovetail and work together, and where the inter-relationship between these concepts and how they are supposed to operate is not explained or cabined with objective standards to avoid subjective, inconsistent, and arbitrary waste determinations.

The Proposed Rule establishes a multi-tiered analytic framework to categorize surface losses of gas as either avoidable or unavoidable, and if avoidable, whether loss of gas is unnecessary and undue – without taking economics into consideration. The complete removal of economic considerations is problematic because it overlooks decades of legal precedent and glosses over existing legal concepts that have long been considered black letter law. It also overlooks the underlying relationship between the Federal Government and lessees – which is based on and arises out of a commercial agreement – the federal oil and gas lease – which conveys a right, and obligation, of the lessee to produce commercial quantities of hydrocarbons.

By removing economic considerations from the review and analysis of whether a loss of gas is waste, the Proposed Rule appears to make a logical jump that all surface losses of gas not included in the specifically enumerated "unavoidably lost" definition are per se prohibited waste under the MLA, but the facts underlying the circumstance causing the loss may not comport with this assumption.

As explained in more legal detail below, a blanket prohibition on avoidable losses without regard to BLM's existing definition for the term "waste," or the proposed definition of "unreasonable and undue waste" does not appear to be supported by the MLA, governing legal precedent, BLM's lease forms, or definitions of actual terms used therein. Nor does it appear to be supported by BLM's proposed definition for "unreasonable and undue waste."

Additionally, definitions and provisions contained in the Proposed Rule create irreparable legal and compliance conflicts with existing and proposed EPA regulations, regulations governing Indian leases and resources, and state regulations governing oil and gas development, and air emissions. These conflicts place an undue and unreasonable burden on BLM, and upon regulated entities, in terms of navigating and resolving these complex legal issues in a consistent, defensible, and prudent manner, while at the same time ensuring compliance the governing statutory and legal authorities.

Finally, absent consideration of economic factors, the Proposed Rule falls squarely within the category of air pollution regulations. It is well established that Congress reserved the regulation of air pollution to the EPA and states under the Clean Air Act. The Proposed Rule's overlap into air pollution regulation creates a legal risk in terms of exceeding the statutory authority that Congress granted BLM, and impermissibly infringing upon the statutory authorities granted to EPA and delegated to the States.

2. Proposed Revisions:

BLM should re-incorporate economic considerations into its waste prevention rules, particularly when considering whether a surface loss of gas is avoidable or unavoidable. Incorporation of economic considerations will remove and alleviate legal and regulatory conflicts, promote regulatory certainty, and provide a more defensible regulatory framework that BLM will be able to efficiently administer.

3. Additional Commentary and Supporting Legal Analyses:

Because the complete absence of economic considerations permeates almost every aspect of the Proposed Rule and its apparent analytic framework, the governing statutory framework, historic regulatory process, and legal precedent governing economic considerations is provided here and will be cross-referenced with the additional comments provided below on specific provisions of the Proposed Rules.

a. Mineral Leasing Act of 1920 – Congressional Intent and Foundational Economic Underpinnings

BLM's Proposed Rule is inconsistent with the legislative intent and fundamental underpinning of the Mineral Leasing Act of 1920 (MLA) and related statutory and legal authorities that govern BLM's management of the federal onshore oil and gas program.

As prescribed by Congress, the purpose of the MLA is to promote the orderly development of oil and gas resources on the public lands through private enterprise, and to obtain from the lessee a reasonable financial return. *Geosearch, Inc. v. Andrus*, 508 F. Supp. 839, 842 (D. Wyo. 1981) (*citing Harvey v. Udall*, 384 F.2d 883 (10th Cir. 1967)); *Mountain States Legal Found. v. Andrus*, 499 F. Supp. 383, 392 (D. Wyo. 1980) (*citing Cal. Co. v. Udall*, 296 F.2d 384, 388 (D.D.C. 1961). As recently recognized and explained by the U.S. District Court for the District of Wyoming in its decision overturning the 2016 waste prevention rules, "Congress enacted the MLA against this backdrop of consideration for operator economics." *State of Wyoming, et al. v. U.S. Dep't of the Interior*, 493 F. Supp. 3d 1046, 1072 (D. Wyo. 2020).

Federal leases between the United States and a private party are intended to ensure mutually profitable development of the lease's mineral resources, "[o]il and gas leases . . . are intended to ensure *mutually profitable* development of the leases' mineral resources; accordingly, lessees have an obligation of reasonable diligence in the development and marketing of oil and gas from the lease, with due regard for the interest of both the lessee and the lessor." *State of Wyoming*, 493 F. Supp. 3d at 1072 (emphasis in original); *see also Gerson v. Anderson-Prichard Prod. Corp*., 149 F.2d 444, 446 (10th Cir. 1945) ("reasonable diligence in the development and protection of the premises means the doing of that which an experienced operator of ordinary prudence should do in the circumstances, bearing in mind that the purpose of the contract is the mutual benefit of the lessor and the lessee") (internal citations omitted).

b. Prudent Operator Standard – Legal Framework and Precedent

In accord with Congressional intent, the MLA promotes reasonable development of federal mineral resources. Federal lessees must act as "prudent operators," "exercise reasonable

diligence, skill, and care," in their efforts, and take "all reasonable precautions to prevent waste of oil and gas." 30 U.S.C. § 225. Of particular importance in this statutory context, "[t]he exercise of 'reasonable diligence' and employment of 'reasonable precautions' under the MLA do not require an operator to render its operations uneconomical by capturing and marketing uneconomic gas." *Id.*

In contrast, an imprudent operator that fails to expend reasonable efforts to capture and market commercial production is negligent and commits undue waste. In cases where the operator commits prohibited waste, the operator, at a minimum, owes the lessor a royalty on the amount lost, because the loss was the fault of the lessee and not the lessor, who is entitled to the diligent operation of its lease.

The prudent operator standard is fundamental in determining whether lost gas is waste, and whether that waste is avoidable or unavoidable. This long-standing and well-established standard is premised upon the foundational economic principles of the MLA, and embedded in legal precedent, and BLM's regulations governing onshore oil and gas lease operations. BLM's statutes and regulations prohibiting waste provide for consideration of whether it makes economic sense for a prudent operator to recover and sell the otherwise lost production. *See, e.g.,* Federal Oil and Gas Royalty Management Act (FOGRMA), 30 U.S.C. §§ 1701 et seq.; 43 C.F.R. § 3160.0-5 (BLM regulation defining waste and using the prudent operator standard); BLM Standard Oil and Gas Lease Form, Section 4; *Petro-Hunt, L.L.C.*, 197 IBLA 100, 102 (2021).

The Proposed Rule should incorporate the prudent operator standard to provide clarity, and to avoid situations where a reasonable prudent operator may be held liable for the loss of gas in situations completely beyond the control of the operator, such as force majeure events, gas that does not meet pipeline specifications (called off-specification or "off-spec" gas), Acts of God, blow-outs caused by third parties, and other operational impact issues caused by third-parties or otherwise beyond the control of the operator.

c. Analyzing Whether Waste is Avoidable or Unavoidable - Longstanding Statutory, Legal, and Regulatory Frameworks

As required under the MLA and the prudent operator standard, BLM has always considered economics when determining whether the loss of gas is avoidable or unavoidable.

Building upon the MLA's bedrock economic principles, FOGRMA, enacted in 1982, sets standards consistent with the MLA for whether loss of oil or gas from a federal or Indian lease is an avoidable loss, and subject to royalty:

> Any lessee is 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 this chapter or any mineral leasing law.

30 U.S.C. § 1756. Consistent with the prudent operator standard under the MLA, under this provision of FOGRMA, if the lessee was not negligent and did not fail to comply with a specific regulatory requirement or BLM order, then the loss is deemed unavoidable and not subject to royalty.

BLM's existing regulations for making unavoidable loss determinations are founded upon, and implement, these MLA and FOGRMA statutory provisions. BLM's regulatory definition of oil and gas "waste" in 43 C.F.R. § 3160.0-5 (2015), and the definitions of "unavoidably lost" and "avoidably lost" contained in BLM NTL-4A Section II.A, relate back to the prudent operation of the lease.

As recently confirmed and explained by the Interior Board of Land Appeals (IBLA), NTL-4A's regulatory structure is founded on the MLA and BLM regulatory standards:

> Section II of NTL-4A echoes the MLA and the regulations by focusing on whether the lessee's conduct was reasonable. It defines '[u]navoidably lost production' to include gas . . . . which is lost because of line failures, equipment malfunctions, blowouts, fires, or otherwise except where the Supervisor determines that said loss resulted from . . . the failure of the lessee or operator to take all reasonable measures to prevent and/or control the loss." Section II also defines "'[a]voidably lost' production," complementarily, to include loss that "occurred as a result of . . . the failure of the lessee or operator to take all reasonable measures to prevent and/or to control the loss."

Petro-Hunt, L.L.C., 197 IBLA 100, 102 (2021) (emphasis added and in original).

Under the MLA, BLM's consistent historic regulation, and governing legal precedent, whether a loss of oil or gas is in fact "avoidable" necessitates a case-by-case evaluation of the operator's reasonableness in light of the circumstances of the lease and a determination of whether recovering the otherwise lost production would be economic. In the event recovering the otherwise lost gas would not be economic, then the loss is generally considered "unavoidable."

Federal courts have confirmed that the economic test for the unavoidable loss determination is required by the MLA, in both recent and historical case law. *See, e.g., State of Wyoming,* 493 F. Supp. 3d at 1072; *Brewster v. Lanyon Zinc Co.,* 140 F. 801, 814 (8th Cir. 1905) ("It is only to the end that the oil and gas shall be extracted with benefit or profit to both [lessor and lessee] that reasonable diligence is required."); *Gerson v. Anderson-Prichard Prod. Corp.,* 149 F.2d 444, 446 (10th Cir. 1945) ("reasonable diligence in the development and protection of the premises means the doing of that which an experienced operator of ordinary prudence should do in the circumstances, bearing in mind that the purpose of the contract is the mutual benefit of the lessor and the lessee") (internal citations omitted).

Likewise, this economic test and analytic framework for whether waste is avoidable has long been recognized and upheld by IBLA. *See Petro-Hunt,* 197 IBLA at 113 (explaining that "the question of whether it would have been economically feasible to avoid flaring is 'a question of fact that must be answered on a case-by-case analysis of data presented by the lessee.'"); *see also Rife Oil Properties, Inc.,* 131 IBLA 357, 373-77 (1994) (under NTL-4A, whether a loss is "avoidable" turns on "whether it would have been economic to market the gas from the well at issue"); *Ladd Petroleum Corp.,* 107 IBLA 5 (1989).

In sum, pursuant to longstanding federal court and IBLA legal precedent, and long-standing BLM regulation and interpretation, whether a federal or Indian lessee's flared gas is

avoidably lost turns on whether the lessee acted reasonably and prudently under the totality of the circumstances. Consistent with the MLA and FOGRMA, it is BLM's duty to determine whether (1) the operator acted reasonably and prudently, in which case the flared gas is "unavoidably lost" and not subject to royalty, or (2) the operator negligently lost or wasted the gas, in which case the "avoidable loss" is subject to royalty. 30 U.S.C. § 1756; 30 U.S.C. § 1756; 43 C.F.R. § 3160.0-5 (2015).

Given the MLA and FOGRMA statutory requirements, BLM's regulations implementing these requirements, and long-established legal precedent, it is unclear now why BLM is abandoning economic considerations entirely from the Proposed Rule. The removal of economic considerations renders the rule unwieldy at best, substantially increases litigation risk, and significantly reduces BLM's ability to efficiently administer this regulatory program. Moreover, it does not provide any regulatory certainty to BLM in its administration of the requirements of the Proposed Rule, or to industry in its attempt to comply with the Proposed Rule. In its efforts to attempt to reduce emissions, BLM also introduces regulatory uncertainty with other agencies whose purview it is to regulate emissions, such as state agencies and U.S. EPA.

B. Numerous Provisions of the Proposed Rule Do Not Comport with the Existing BLM Definition of "Waste."

1. Comment Summary:

BLM has an existing definition for "waste" in Part 3160 of its regulations that is not being rescinded or modified by the proposed waste prevention rules. The Proposed Rule's definition and treatment of unavoidable losses fails to fully comport with BLM's definition of waste contained in its existing regulations governing onshore oil and gas operations, BLM's oil and gas lease form, and BLM's historic implementation of its guidance under Notice to Lessees 4-A and related legal precedent. The Proposed Rule should be revised to coordinate its concepts of avoidable loss and unavoidable loss with its existing definition of "waste."

In addition, as detailed in subsequent comments, the Proposed Rule also conflicts with the statutes and regulations governing the U.S. Department of the Interior's fiduciary duties to Native American Tribes, and the Bureau of Indian Affairs management and administration of Indian Leases and the economic development of tribal oil and gas resources.

2. Proposed Revisions:

AXPC recommends that determinations as to when venting and flaring is allowed and when royalties are due be tied to a threshold analysis of whether or not waste exists under BLM's definition of the term "waste." BLM must then look at whether such waste qualifies as "undue waste" prohibited by the MLA.

3. Additional Commentary and Supporting Analyses:

The Proposed Rule expands the term "waste" and alters long-established statutory and regulatory standards that distinguish "unavoidable" losses from "avoidable" losses. Untethered from any economic considerations, the Proposed Rule imposes volumetric caps and equipment

limitations that are arbitrary and disconnected from considerations of lease economics and binding contractual understandings, as well as sound engineering practices to promote safety.

Against the backdrop of the detailed statutory, regulatory and legal analyses provided in Comment Section A above, BLM's proposal to impose a broader definition of "waste" is legally unsupportable.

As the federal court in Wyoming held as to BLM's 2016 waste prevention rules, "[t]he exercise of 'reasonable diligence' and employment of 'reasonable precautions' under the MLA do not require an operator to render its operations uneconomical by capturing and marketing uneconomic gas." *Wyoming*, 493 F. Supp. 3d at 1074. Departure from that standard is "not a permissible construction" of BLM's authority. *Id.* Those principles continue to bind BLM in this rulemaking.

Although the MLA does not expressly define the term "waste," BLM's current regulation (which BLM is not proposing to amend) defines "waste" as:

> any act or failure to act by the operator *that is not sanctioned by the authorized officer* as *necessary for proper development and production* ***and*** which results in: (1) A reduction in the quantity or quality of oil and gas ultimately producible from a reservoir under prudent and proper operations; or (2) *avoidable* surface loss of oil or gas.

43 C.F.R. § 3160.0-5 (emphasis added). Under this definition, not all lost gas production (whether avoidable or unavoidable) qualifies as waste. Instead, (1) the loss must be caused by an act or a failure to act by the operator; (2) that action or failure to act must not be sanctioned by authorized officer as proper for development and production; ***and*** (3) the surface loss must be avoidable.

BLM's standard oil and gas lease form similarly requires the lessee to pay royalty on oil or gas "lost or wasted . . . when such loss or waste is due to operator negligence . . . or a failure to comply with a regulation or order issued under [FOGRMA] 30 U.S.C. §§ 1701 *et seq*.]." Section 4 of the lease form, which addresses issues of diligent development, unitization, and drainage, similarly requires the lessee to exercise "reasonable diligence" in developing and producing from the lease and requires lessees to prevent "unnecessary" waste of leased resources. These obligations are consistent with the traditional notion of "waste" in the oil and gas industry and the lessee obligations described above. *See Wyoming,* 439 F. Supp. 3d at 1073.

Although BLM may have some discretion to alter its previous interpretation of "avoidable loss," the concepts of "waste" and "avoidable loss" represented in the Proposed Rule bear little, if any, resemblance to the concept of "waste" as understood by Congress when enacting the MLA or as reflected by longstanding industry practice on both public and private lands. BLM may not simply redefine the concepts of waste and avoidable loss in a manner inconsistent with these longstanding principles. *See Marathon Oil Co. v. Andrus*, 452 F. Supp. 548. Consequently, BLM may not promulgate regulations that predetermine all losses of gas above preset, nominal levels as "avoidable" without determining whether a reasonable and prudent operator would, given the circumstances, capture and market the gas.

C. The Prescribed Limits on Unavoidable Losses are Unduly Narrow, Confusing, and Conflict with Other Regulatory Definitions - Section 3179.4.

1. Comment Summary:

As part of determining whether there is waste, BLM's definition requires the agency to evaluate whether a surface loss of gas is avoidable. The term avoidable is most commonly defined in the context of the prudent operator standard to include loss that occurred as a result of negligence by the lessee or operator, or their failure to take all reasonable measures to prevent and/or to control the loss. FOGRMA, 30 U.S.C. § 1756.

Losses that are not avoidable, are considered unavoidable – and, thus, do not qualify as waste under BLM's definition for the term "waste" found in 43 C.F.R. § 3160.0-5.

Instead of looking at whether a loss of gas was avoidable, the Proposed Rule 3179.4(b), only identifies a finite list of 14 categories of unavoidable losses. As written, if an event does not fall within one of those 14 categories, then the waste is automatically deemed avoidable and royalty-bearing. In doing so, the Proposed Rule imposes unreasonably restrictive and inflexible limits on what qualifies as an unavoidable loss, to the point of being arbitrary. These limits are entirely detached from any consideration as to whether the operator has acted reasonably and prudently based on the economics involved in its particular lease production circumstances.

The Proposed Rule does not account for situations where, through no fault of the prudent operator, or due to circumstances entirely beyond the control of the operator, there is a loss of gas caused by, for example, force majeure events, Acts of God, off-spec gas, or other similar events. The Proposed Rule also ignores lessees' own inherent commercial interests in capturing and marketing as much gas as economically and technically feasible.

The arbitrariness of this provision is underscored by the fact that BLM has successfully regulated the loss of gas, and whether such loss is waste and royalty bearing, over the past several decades under the traditional definitions of "waste" and the economic considerations utilized to determine whether such loss was unavoidable or avoidable.

Regarding the monthly flaring limits articulated in the Proposed Rule in Sections 3179.7 and 3179.8, BLM needs to provide additional technical justification and supporting data so that industry can analyze this information and provide BLM with meaningful feedback as to whether the engineering and operational assumptions utilized for developing these limits are in fact technically feasible. Without such information and additional review, these sections of the Proposed Rule are not supported by the administrative record, and therefore not legally defensible under the Administrative Procedures Act.

2. Proposed Revisions:

BLM should include additional categories of unavoidable loss that reflect losses that do not qualify as "waste" under BLM's existing regulatory definitions, or "unreasonable and undue waste" as defined in the Proposed Rule. This requires BLM to broaden its categories listed in this Section and the creation of an exception process, allowing operators to prove when less-common

losses of gas (which don't qualify as unreasonable or undue waste) should also qualify as unavoidable losses.

At a minimum, these additional categories should include: (1) longer force majeure events, (2) situations where operational issues, such as blow-outs, are caused by third parties, (2) flaring gas from exploratory oil wells when a field is first discovered and midstream companies will not invest in the initial buildout; and (4) the flaring of off-spec gas that cannot be sold/marketed. This should include situations where a prudent operator who has not been negligent but yet is unable to meet pipeline quality specifications and as such, cannot send that gas to a sales line, should be able to claim that gas as "unavoidably lost."

3. Additional Commentary and Supporting Analysis:

In its preamble, the Proposed Rule acknowledges the long-established distinctions between royalty-bearing avoidable losses and non-royalty-bearing unavoidable losses that are based on statutory provisions and longstanding regulatory interpretations of those provisions. But then, BLM's Proposed Rule text seems to mix up some of these concepts in application. AXPC raises this issue not to condone unrestricted flaring, but to highlight definitional inconsistencies that will result in unnecessary ambiguity, future litigation as the rule is applied, and appeals.

BLM's preamble properly acknowledges that "[t]he MLA requires lessees to 'use all *reasonable* precautions to prevent waste of oil or gas developed in the land,'" citing 30 U.S.C. § 225 (emphasis added). Proposed Rule at 73588. However, to support its structure for distinguishing avoidable from unavoidable losses of gas through venting or flaring, BLM's further statements as to the controlling statutory standards appear to be an alteration of what the MLA and FOGRMA actually require.

For example, despite that the MLA only requires that lessees avoid "undue waste" (meaning that waste that is not undue is not a violation of a lessee's statutory obligation), and that lessees must take "reasonable precautions to prevent waste," BLM proposes to deem most flaring a royalty-bearing avoidable loss. BLM also states that "[u]nder FOGRMA, oil and gas lessees are liable for royalty payments on gas wasted from the lease site." *Id.* But this is an overstatement because as even BLM later acknowledges, "FOGRMA expressly made lessees 'liable for royalty payments on oil and gas lost *or wasted* from a lease site *when such lost or waste is due to negligence on the part of the operator of the lease, or due to failure to comply with any rule or regulation, order or citation issued under [FOGRMA] or any mineral leasing law.'"* Proposed Rule at 73592 (emphasis added). Therefore, only flaring that meets the statutory condition is a royalty-bearing avoidable loss.

Similarly, when BLM states that "[l]essees are not only responsible for taking measures to prevent waste, but also for making royalty payments on wasted oil and gas when waste does occur," Proposed Rule at 73593, BLM ignores the sideboards that the MLA and FOGRMA establish for distinguishing between waste that is undue and a violation of the lessee's duties, and lost gas that is reasonable to expect when operating a federal or Indian lease.

The Proposed Rule is also silent on BLM's own definition of "waste" in 43 C.F.R. § 3160.0-5, and which BLM is not proposing to amend, that, as explained above, does not deem all losses of production as waste.

a. Conflict with BLM's Existing Regulatory Definition of Waste

The BLM needs to include additional categories of unavoidable loss that reflect losses that do not qualify as "waste" under BLM's existing regulatory definitions, or "unreasonable and undue waste" as defined in the Proposed Rule. Moreover, the Proposed Rule's 14 categories of when the venting and flaring of gas is considered unavoidable ignores and conflicts with BLM's definition of waste within its existing regulations of when gas is "avoidably lost," in relation to prudent operation of the lease. This BLM regulation provides:

> Venting or flaring of produced gas without the prior authorization, approval, ratification or acceptance of the authorized officer and the loss of produced oil or gas when the authorized officer determines that such loss occurred as a result of: (1) Negligence on the part of the operator; or (2) The failure of the operator to take all reasonable measures to prevent and/or control the loss; or (3) The failure of the operator to comply fully with applicable terms and regulations, applicable orders and notices, or the written orders of the authorized officer; or (4) Any combination of the foregoing. 43 C.F.R. § 3160.0-5; see also NTL-4A Sec. II.A.

The failure to consider these BLM regulatory definitions and how they interact with the enumerated and finite list of unavoidable losses for gas is arbitrary, and not otherwise supported by the Proposed Rule.

b. Required Flaring Despite Connection to Existing Pipeline Infrastructure

As BLM acknowledges in the preamble, "the bulk of the recent royalty-free flaring applications have concerned flaring from wells that are actually connected to pipeline infrastructure." Proposed Rule at 73598. Of particular concern to AXPC and its members is application of the Proposed Rule's paradigm to circumstances where (1) an operator has satisfied its obligation as a reasonable and prudent operator to connect its production facilities to midstream gathering and processing systems to allow for capture and marketing of gas as opposed to flaring, but (2) due to capacity constraints entirely beyond the control of the operator, the midstream system is unable to take the operator's gas which then must be flared to continue the oil production far more valuable to both the lessor and the operator.

Under proposed § 3179.4(b):

> Lost gas is "unavoidably lost" if the operator has not been negligent; the operator has taken prudent and 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 gas is lost from the following operations or sources:
>
> ***

> (12) Pipeline capacity constraints, midstream processing failures, or other similar events that prevent oil-well gas from being transported through the connected pipeline, subject to the limitations in § 3179.8.
>
> In turn, proposed § 3179.8 provides:
>
> (a) Where oil-well gas must be flared due to pipeline capacity constraints, midstream processing failures, or other similar events that prevent produced gas from being transported through the connected pipeline, up to 1,050 Mcf per month, per lease, unit, or CA, of such flared gas will be considered "unavoidably lost" for the purposes of §§ 3179.4(b)(12) and 3179.5.
>
> (b) Where substantial volumes of oil-well gas are flared, resulting in the unreasonable and undue waste of Federal or Indian gas, the BLM may order the operator to curtail or shut-in production as necessary to avoid the unreasonable and undue waste of Federal or Indian gas. The BLM will not issue a shut-in or curtailment order under this paragraph unless the operator has reported flaring in excess of 4,000 Mcf per month for 3 consecutive months and the BLM confirms that flaring is ongoing.

This proposed regulatory structure entirely ignores whether the lessee is acting reasonably and prudently or is committing undue waste; it imposes absolute and inflexible time and volume limits on flaring without any evaluation of the lessee's actual economic circumstances. Flaring is not automatically "waste" to begin with. However, in BLM's proposal, given the limited and unduly restrictive circumstances where loss is considered unavoidable, any other loss is automatically deemed avoidable waste that is royalty bearing.

c. Volumetric Limits of Flared Gas

Similarly, the Proposed Rule's time and volume limits as when flared gas is deemed "avoidably lost" versus "unavoidably lost," appears arbitrary absent consideration of economic factors, and other individual circumstances relevant to gas capture and flaring. Flaring above a 1,051 Mcf monthly limit should not arbitrarily transform an unavoidable loss into a royalty-bearing avoidable loss, with no consideration of the reasonableness or prudence of the lessee's operating circumstances.

The arbitrary nature of this provisions is exacerbated further because it does not account for multi-well facilities. As written, the exact same limits would apply to a single well on a single lease or to a multi-well unit, where an operator could exceed 1,050 Mcf, or even 4,000 Mcf, in a matter of minutes or hours.

Moreover, the Proposed Rule does not address, or provide a flexible exception for, situations where the economic value of the monthly flaring limit is marginal. For example, at $3.00 per Mcf, 1,050 Mcf of gas has a market value of $3,150, and a royalty value of $394—and even 4,000 Mcf of gas only has a market value of $12,000 and a royalty value of $1,500. BLM does not explain how it is negligent and imprudent for an operator to flare that minimal value of gas in lieu of shutting-in production from a CA that in the same month would produce tens of

thousands, if not hundreds of thousands of dollars, worth of oil. Nor does BLM harmonize its approach with distinct standards governing production on Indian lands.

As written, these provisions of the Proposed Rule are not legally supportable and would result in arbitrary decisions on lost gas that could not be justified or supported with basic economic analysis.

D. The Proposed Rules Need to Afford a Process for Waivers, Exceptions, and Variances, to the Avoidable/Unavoidable Loss Standard.

1. Comment Summary:

Given the numerous complex technical, engineering, and operational issues that arise in both upstream and midstream operations, it is important for BLM to provide provisions in the waste prevention rules that allow for application and approval of exceptions, waivers and/or variances for avoidable loss determinations. Such provisions are particularly important to address when certain volumes may technically qualify as avoidable loss but are not economic to capture.

2. Proposed Revisions:

AXPC proposes the following revisions to promote regulatory certainty and regulatory flexibility to address complex operational issues where an avoidable loss may be determined even though those volumes are not economic to capture. The Proposed Rules should be revised to allow for an exception process for a prudent operator.

In addition, the list of 14 categories of avoidable loss should be expanded to include exceptions for acts beyond the control of the operator, such as unforeseeable force majeure events, acts of God, delivery of off-spec gas, theft, equipment tampering, equipment malfunctions, and blowouts caused by third party offsets. This flexibility would cover prudent operators who are in compliance with BLM regulations, orders, and authorizations, but would otherwise still be deemed liable for an avoidable loss as the Proposed Rule is currently written.

E. The Definition of "Unnecessary and Undue Waste" is Confusing and Arbitrary Absent Inclusion of Economic Considerations.

1. Comment

The Proposed Rules defines "unreasonable and undue waste" as "a frequent or ongoing loss of gas that could be avoided without causing an ultimately greater loss of equivalent total energy than would occur if the loss of gas were to continue unabated."

This proposed definition requires an energy balance assessment yet is untethered to any cost considerations to guide this balancing test. Moreover, this definition is exceedingly difficult to understand what it means in practice and how and when it is to be applied within the regulatory framework of the Proposed Rules. In addition, this opaque and entirely subjective standard is clearly not a concept that BLM Field Offices will be able to apply with any proficiency or consistency and will instead result in an undue burden on BLM staff, as well as result in significant administrative delays.

2. Proposed Revision:

As detailed in our prior comments in the sections above, the inclusion of economic considerations for BLM's evaluation of waste, and whether such waste was unavoidable, or avoidable and royalty-bearing, would provide a streamlined standard that would provide regulatory certainty for both BLM and regulated entities. An economic analysis would alleviate the need for even including this provision regarding "unreasonable and undue waste."

In the event BLM decides to retain its proposed multi-layered analysis of waste in the Proposed Rule, that requires an examination of whether waste deemed unavoidable is nonetheless "unreasonable and undue waste," then the Proposed Rule should be amended by adding economic considerations as follows:

> a frequent or ongoing loss of gas ***that is economically reasonable to avoid*** without causing an ultimately greater loss of equivalent total energy than would occur if the loss of gas were to continue unabated.

This addition would allow and account for future technological advancements, and provide quantifiable metrics in terms of economic cost, in compliance with the fundamental underpinnings of the MLA. The addition of economic feasibility provides a quantifiable metric that will allow efficient review and administration by BLM and provide a straight-forward path for operators to evaluate and comply with.

3. Comment on Alternative Definition for Unreasonable and Undue Waste

BLM requested comment on a proposed alternative definition of unreasonable and undue waste:

> a frequent or ongoing loss of substantial quantities of gas that could reasonably be avoided if the operator were to take prudent steps to plan for and manage anticipated production of both oil and associated gas, including where appropriate, coordinating with other nearby operations.

AXPC does not support this proposed alternative definition. This alternative injects several subjective variables that will be unduly difficult for BLM to administer and unduly burdensome for operators to attempt to interpret and navigate.

F. The Proposed Rule Lacks Specific Standards to Govern Determination of "Reasonable" Precautions to Prevent Waste – Section 3179.12.

1. Comment Summary:

Similar to the concerns regarding the definition of "unreasonable and undue waste" in Comment C above, the qualitative and repeated use of the term "reasonable" within proposed Section 3179.12 creates significant confusion and concerns on implementation by BLM and compliance by operators.

Proposed Section 3179.14 provides:

- that operators must use all "reasonable" precautions to avoid waste,
- the Authorized Officer may specify "reasonable" measures to prevent waste as conditions of approval,
- after an APD has been approved, the authorized officer may order an operator to implement additional "reasonable" measures, and
- "reasonable" measures to prevent waste may reflect factors, including but not limited to advances in technology and changes in industry practice.

Again, as noted above, BLM has not provided any concrete metrics or specific guidance to explain how "reasonableness" will be determined. Based on the overall structure of the Proposed Rules, the assumption is that economic reasonableness is not a criterion.

As a result, these provisions create a nebulous, open-ended, and an entirely subjective standard that creates significant confusion as to operator compliance and BLM review, administration, and implementation. As written, this provision creates a perpetually moving target that does not provide an anchor for consistent implementation by BLM or clear standards to guide operator compliance.

A pervasive opaque reasonableness standard fails to provide predictability and regulatory certainty. This lack of regulatory certainty places an undue burden on both BLM and regulated entities and will be nearly impossible to implement on a consistent and legally defensible basis. As written, the "reasonableness" standard seems to impart an almost unbridled authority for the agency to modify or require new standards without following the due process of a regulatory change.

2. Proposed Revision:

BLM should remove this provision and provide a narrowly tailored provision that also recognizes that BLM may amend the rules in the future based upon technological advances to ensure that an operator continues to take reasonable precautions to prevent waste. In the alternative, at a minimum, BLM should provide notice and an opportunity for a hearing before imposing new operating requirements post-APD.

G. The Definition of "Gas Well" Conflicts with State Definitions of Same Term.

1. Comment Summary:

BLM's definition of "gas well" is inconsistent with State definitions for the same term. This inconsistency will create confusion in regulatory filings submitted to both BLM and state agencies that require information noting "gas well or "oil well" classifications, reflecting the traditional State classification of wells, spacing rules, and commingling applications and authorizations.

Moreover, the Proposed Rules do not explain how and when BLM will apply the proposed definition of "gas well." This lack of clarity creates significant confusion and will not aid in efficient administration of the rules. In the virtual forum recently held by BLM on the Proposed Rule, BLM indicated that it would defer to state definitions in the event of a conflict, but that is not readily clear from the proposed text.

2. Proposed Revision:

BLM should delete the definition of gas well and incorporate the gas-to-oil (GOR) standard that is proposed throughout the rule. Draft redline changes showing this suggested edit are included in AXPC's Section-By-Section Comments. This revision would allow for consistency with State rule definitions, but still allow BLM to achieve the same result intended under the GOR cutoff standard.

3. Additional Commentary and Supporting Analyses:

The Proposed Rules define a "gas well" as:

> a well for which the energy equivalent of the gas produced, including its entrained liquefiable hydrocarbons, exceeds the energy equivalent of the oil produced. Unless more specific British thermal unit (Btu) values are available, a well with a gas-to-oil ratio greater than 6,000 standard cubic feet (scf) of gas per barrel of oil is a gas well.

Proposed Rule, Definitions - Section 3179.3

As described immediately below, this definition would cause significant unintended consequences when there are conflicts with State definitions. This issue is important because BLM has a long-term practice of deferring to State Conservation Agency definitions as to what constitutes a "gas well" and what constitutes an "oil well." Designations regarding well status, pool codes or field rules reported to BLM in the APD are contingent upon first identifying whether the well is classified by the State as an "oil well" or "gas well." This classification is then also used to establish spacing, which is typically used as the boundary for the BLM CA.

States have adopted field rules and statewide standards for the classification of wells and well spacing based upon their gas well and oil well definitions. The definitions adopted by State Agencies were made through the application of decades of experience and technical expertise. Principally, such classifications were the result of state technical hearings and geologic evidence regarding the reservoirs within a designated area. States then adopted field rules and statewide standards utilizing these classifications. The BLM has deferred to the states on these matters.

The "gas well" and "oil well" classifications made using the State definitions are utilized by operators in a wide variety of regulatory paperwork submitted to both the State and BLM. At the State level, these classifications are foundational to set well spacing, which is what is used for developing a CA. By creating and using a different BLM definition for term "gas well" in a manner that differs entirely from long-used State definitions, operators would have questionable approvals for existing wells and would need to resubmit pending APDs, sundries, well spacing plats, communitization agreements (redefining the spacing unit areas), commingling approvals

and applications, and more. This would create uncertainty both about past state classification decisions and BLM's reliance thereon and future BLM determinations when working with States on various approvals for a particular well.

For example, in New Mexico the term "gas well" is defined as: "a well producing gas from a gas pool, or a well with a gas-oil ratio exceeding 100,000 cubic feet of gas per barrel of oil producing from an oil pool." NMAC 19.15.2.7. This is materially different from the definition proposed by BLM. Similar examples exist in other states as well.

H. There Are Unduly Burdensome and Infeasible Information Requirements for APD Waste Minimization Plans – Section 3162.3-1.

1. Comment Summary:

AXPC members are not opposed to the concept of a waste minimization plan (WMP) as an approach to ensure operators are making appropriate arrangements for expected gas takeaway. However, some of the information that would be required under the proposal is information belonging to a midstream provider and not available to an operator or not helpful for the specific purpose intended.

For example, the proposed requirements seek confidential midstream business information that is not accessible by an upstream operator or otherwise available for their disclosure. It also seeks confidential and proprietary business information from the operator, such as decline curve analyses, which do not serve a purpose for informing BLM review of a proposed waste prevention plan.

In addition, the proposed requirement that a WMP be filed with *each* APD submission places an undue burden on both BLM and the operator. The Proposed Rules should be revised to allow for a single WMP to cover multi-well sites and remove proposed information and data requirements that are not accessible to the operator or otherwise eligible for disclosure.

2. Proposed Revisions:

AXPC recommends that BLM revise this proposed section to request that operators provide estimated completion date, estimated initial gas flowrates, the gas processing company with which they have contracted (if contractually possible) or, if not covered, the operator's planned gas gathering/processing company, or alternative beneficial uses of the gas where applicable. If the operator cannot identify adequate takeaway capacity, the waste minimization plan also should include a gas pipeline map to show the field in which the proposed well would be located, the name and location of the gas processing plant closest to the proposed well as well as the proposed destination plant. AXPC has provided a proposed redline to the WMP requirements in its Section-By-Section Comments, which are included as an attachment (i.e. Exhibit A) to this comment letter.

In addition, the Proposed Rule would require that a WMP be filed for every APD, even though multiple wells could be located on a single pad. This provision should be revised to allow for a single WMP to cover multi-well sites. In addition, multiple wells may be drilled on the same lease, CA, or unit. In such cases, the operator should be able to submit a single plan

to minimize waste of associated natural gas from that lease, CA, or unit in a Sundry Notice to the authorized officer, which if approved should apply to all development the covered wells.

3. Additional Commentary and Supporting Analyses:

The BLM's intent of the WMP is to ensure there is a process that requires operators to identify gas take-away and beneficial use options as a component of pre-production planning. Technical information related to these plans is often proprietary, confidential, subject to unfair trade practices and antitrust laws and requirements, and/or not in the possession of the operator (solely in the possession of the midstream company) nor is the operator entitled to the information, making inclusion of a WMP requirement in a regulatory context somewhat challenging without unintended consequences. It is important to first understand foundational concepts as it relates to contracts between midstream companies and operators and what BLM's purpose is in requesting the data. The ask seems to imply that BLM will be taking a more active role in determining if there is sufficient capacity in a basin to support new well development, which appears to be beyond their authority.

Midstream Contracts and Commercial Parameters. As a standard practices, operators commit large swaths of acreage to midstream dedication agreements. Under these agreements, acreage is dedicated to future midstream services of a particular midstream company. This is done in order to support the midstream company's ability to make the substantial investment needed for the construction of infrastructure necessary to gather and process gas in the area. Midstream companies regularly require exclusive commitment of an operator's production in a given area or region. For example, Gas Purchase Agreements provide something similar to the following term:

> Subject to the terms and conditions contained herein, Seller hereby commits to the performance of this Agreement all of Seller's Gas produced and saved from the Leases, and to ensure the faithful performance of the provisions of this Agreement, Seller covenants to sell and deliver the same to Buyer at the Point(s) of Delivery listed on Exhibit "A" attached hereto and by reference made a part hereof without other disposition except as herein otherwise provided.

In the event the midstream operator is unable to take all of the operator's gas, the Gas Purchase Agreement does not release the operator from its obligation to sell all of its gas only to the midstream operator. Therefore, if the midstream operator's pipeline capacity became oversubscribed, and the pipeline system was unable to accept an operator's produced gas, the operator is contractually precluded from selling that gas to another midstream operator during the entire term of the agreement.

Attempting to deliver gas to a second system therefore presents a legal risk of noncompliance due to the contractual commitment of the operator's production to the midstream operator. Operators must comply with the provisions of the midstream contract or they risk jeopardizing take-away capacity for large areas of land.

Confidentiality Restrictions. Most midstream agreements are also subject to confidentiality provisions, which prohibit operators from sharing data and information received from the midstream company with third parties except in limited circumstances. The failure to hold this information confidential can result in a breach of the midstream agreement, putting take away capacity for the operator's entire agreement area in jeopardy.

These contractual arrangements both burden and run with the land (i.e. survive conveyances or transfers), and are difficult to modify – even when regulations change. Some confidentiality clauses in midstream agreements also broadly prohibit parties from disclosing the existence of their agreement with a particular midstream provider itself (i.e., disclosing the existence of the agreement). As a result, identification of the company subject to a midstream dedication can constitute a breach of the agreement itself. Additionally, most midstream agreements will not allow operators to provide commercial information provided by the midstream to third parties who are not subject to and bound by a confidentiality agreement or court order.

These contractual arrangements are long-lasting (typically involving dedications that last 5 – 20 years). The reason for their longevity is that the certainty created under these contracts gives midstream companies the needed surety that future revenue streams are in place so they can make the business case to spend hundreds of millions of dollars in the specified geographic area building a midstream system.

I. The Prescribed Volumetric Threshold for Installation of Low Bleed Controllers is Sufficiently Addressed by EPA Regulations – Section 3179.201.

1. Comment Summary:

The BLM has proposed that operators may not use pneumatic devices with a bleed rate greater than 6 scf/hour in cases where the lease, unit participating area, or CA produces at least 120 Mcf of gas or 20 barrels of oil per month. We have a number of concerns with this provision, including but not limited to the fact that this issue already is being addressed by EPA and BLM regulation would be duplicative of EPA regulations in most instances.

2. Proposed Revisions:

AXPC suggests that the BLM re-evaluate the merits of this provision considering the small amount of production at-risk in terms of waste, and now only for the limited period of time until the EPA rules implement, and the negative economics of requiring replacement of older devices; we recommend that BLM remove this section in its entirety. If the BLM proceeds with this proposal despite this analysis, the BLM should provide at least four (4) years to complete the acquisition and replacement of older devices with new devices and to allow necessary coordination with EPA's revised program.[1]

[1] This time frame also would allow for coordination with EPA's proposed OOOOb and OOOOc implementation..

3. Additional Commentary and Supporting Analyses:

As noted elsewhere in these comments, on November 15, 2021, EPA published proposed Standards of Performance for New, Reconstructed, and Modified Sources and Emission Guidelines for Existing Sources in the Oil and Gas Sector. 85 Fed. Reg. 63110 (Nov. 15, 2021) (commonly referred to as OOOOb and OOOOc). By operation of law, those regulations are already effective for all new sources and all sources reconstructed or modified as of November 15, 2021 (for OOOOb). As a result, virtually all pneumatic devices that fall within the purview of these EPA rules will use non-emitting pneumatic controllers and stringently controlled pneumatic diaphragm pumps, thus making the BLM requirements obsolete within 4-5 years.

In addition, all pneumatic controllers subject to the earlier vintage of New Source Performance Standards (OOOO) already are required to use controllers with a discharge rate of no more than 6 scf, while affected pneumatic diaphragm pumps must be controlled. Consequently, only pneumatic devices at facilities for which construction, modification, or reconstruction commenced before August 16, 2012, when NSPS OOOOa became effective, and have not since been modified or reconstructed will be affected by the BLM proposal respecting pneumatic devices. The universe of affected devices will be further limited to those at facilities where production exceeds the proposed thresholds and finalization of OOOO(c).

The New Source Performance Standards proposed by EPA on November 15, 2021, and supplemented on December 6, 2022, require new wells and facilities to adopt zero emission pneumatic controllers. The Emission Guidelines published on the same date will impose that same standard on existing wells and facilities once states adopt performance standards applicable to such sources. AXPC anticipates that will happen in the 2027-2028 time frame and also will require zero emission pneumatic controllers.

In addition, states like Colorado and New Mexico have adopted zero-emission standards for pneumatic controllers with phase-in periods over the next several years. New Mexico's regulations specify standards for natural gas-driven pneumatic controllers and pumps located at well sites, tank batteries, gathering and boosting stations, natural gas processing plants, and transmission compressor stations. Those requirements have an implementation timeframe commencing in 2024 and extending into 2030, based on meeting a specified percentage of non-emitting controllers within the regulatory deadlines. These requirements likely will match up with the final NSPS Subpart OOOO(c) compliance timeframes, creating a complex regulatory compliance framework.

Moreover, the NSPS OOOO, OOOO(b), OOOO(c) Emission Guidelines, and state rules supersede the BLM proposal, suggesting that for a large universe of pneumatic devices the BLM proposal will be both duplicative and unnecessary. Conversely, the universe of facilities with pneumatic devices that will be affected by the BLM proposal but not state and EPA rules is very small and likely comprised in large part of low producing wells. It appears that the BLM proposal for installation of low bleed controllers will provide little in the way of benefit, but potentially increase costs for operators as some may be forced to change out equipment twice in order to comply with multiple rules while being subject to constraints in the supply chain. As a result, this requirement has several negative unintended consequences.

First, the BLM proposal will create a perverse incentive for operators to focus their efforts initially on what likely will be predominantly low producing wells instead of higher throughput wells where there likely will be more components (such as connectors, valves and flanges) and where higher throughput will result in more frequent actuation of controllers. It is unclear to AXPC why BLM would focus operator resources on what will be a universe of wells with only minimal gas usage for pump and controller purposes, and in terms of waste, only minimal at-risk production volumes.

Second, the oil and gas sector, like other industrial sectors, is still experiencing significant supply chain issues, including for these very type of components. Yet the BLM proposal would provide operators with only one year to secure and install up to 52,213 new lower emitting devices. Even in the best of circumstances, if BLM's estimate is correct, it will be impossible for operators to secure that many new devices much less ensure their installation at sites across the country in one year. Judging by delays operators are already experiencing it is likely the time practically necessary for supply chain to meet the full demand will be sometime after the estimated timeframe for implementation of EPA requirements for existing sources. An implementation timeframe of four years would be more achievable, but we recognize that an achievable implementation phase-in further reduces the benefits of this proposal.

Finally, Table 7.11c of the RIA shows that throughout the time horizon evaluated by the BLM, the total costs of this proposal far exceed the proposal's net benefits many of which are already claimed by EPA in its Proposed Rule. In addition, BLM's cost evaluation does not seem to consider critical elements for the analysis. For example, BLM does not consider if the pneumatics to be replaced are continuous or intermittent, a distinction that has a large impact on amount of gas released. BLM also does not appear to consider the number of operators who have converted to air powered pneumatics or routed pneumatics to a process in order to reduce emissions but may technically still be "pneumatic devices with a bleed rate greater than 6 scf/hour."

It was only by including the "benefits to society" from reduced methane emissions that the BLM was able to show a net benefit from this proposal. This appears to violate a key finding in the *Wyoming* case where the court found fault with the BLM's use of environmental benefits to justify what should be a decision based principally on waste of natural gas. It is also inconsistent with the BLM's claim that it is not using the social cost of carbon to justify its proposed regulations. Moreover, as discussed in more detail in these comments, BLM is counting as a benefit of this proposal emission reductions that already have been achieved or scheduled by EPA.

We also want to note that many of the oil and gas companies in the United States are members of the Environmental Partnership. https://theenvironmentalpartnership.org/who-we-are/. These member companies are committed to continuously improving the industry's environmental performance. Among their several actions to which they are committed, replacing, removing, or retrofitting controllers with one of the following: continuous low bleed controllers; intermittent controllers; electrically operated controller and valve actuator or mechanical controller; convert to compressed air to replace natural gas as the motive gas; or remove from service where feasible with no replacement. The member companies are committed to a goal of meeting 100% replacement goal within five years. This is more evidence that individual

company initiative, combined with EPA and state agency efforts, will remove controllers with a bleed rate of more than 6 scf without further action by BLM.

J. The Volumetric Limits for Flared Oil-Well Gas Are Arbitrary, Especially When Applied on an Agreement-Area Basis – Sections 3179.8 & 3179.8(a).

1. Comment Summary:

The BLM's proposed volumetric limits suffer from several problems. First, BLM has not explained the derivation of the proposed limits, leaving observers no basis for reviewing this proposal. The BLM should provide to stakeholders an explanation for how it derived these volumetric limits. Second, the limits are too low for varying sized leases, units, and CAs. AXPC suggests that instead, BLM should either apply volumetric limits on a per-well basis or give operators 24 hours to assess the cause and severity of the midstream interruption, determine whether to shut in or flare gas with payment of royalty, and perform manual shut-ins where needed. Gas lost during the 24-observation period should be treated as unavoidably lost.

2. Proposed Revisions:

AXPC has several recommendations on how this provision should be revised. First, as implied above, AXPC suggests that this provision could be applied on a per-well basis. We recognize that would raise questions about how data are presented to ONRR, but we suggest the BLM could rely on AFMSS to divide flare volumes by well. For commingled production the BLM could allocate the flare volumes back in a similar way that the BLM allocates production from commingled assets.

Alternatively, the BLM could allow operators to flare royalty-free for twenty-four (24) hours while the operator assesses the situation and decides on a course of action. That approach could be an alternative to the use of a threshold.

3. Additional Commentary and Supporting Analyses:

AXPC appreciates that the BLM's proposal would allow oil-well gas to be flared due to pipeline capacity constraints, midstream processing failures, or other similar events that prevent produced gas from being transported through a connected pipeline, up to 1,050 Mcf/month, per lease, unit, or CA. AXPC also appreciates that the flared gas would be treated as unavoidably lost for purposes of sections 3179.4(b)(12) and 3179.5.

However, either a unit participating area or a CA could have dozens, if not hundreds, of wells. In those situations when a midstream disruption occurs, a flared amount of 1,050 Mcf would be attained in a very short period of time. This aggregate threshold would be unworkable for units and CAs and could influence operator decisions whether to enter into such agreements.

Development on a leasehold, CA or unit basis is very different and there is no consideration in the established threshold for the number of wells developing the underlying agreement. For example: operator A may have a 2 well pad developing a lease, operator B may have 6 wells developing a CA; and operator C may have 30 or more wells developing a unit. As written in BLM's proposal, each agreement will be subject to the exact same flaring thresholds –

regardless of the development footprint. And under the proposal these limits appear to deem any additional flaring as "avoidable . . . without determining whether a reasonable and prudent operator would, given the circumstances, capture and market the gas." *Wyoming*, 493 F. Supp. 3d. at 1074. Thus, federal units will likely be at greater risks for shut-in, requiring a shut-in of substantially more wells. Below is a further illustration of this issue:

In a federal unit, the unit agreement number is used for royalty reporting to ONRR. Though listed under one unit number, a unit, of course, contains multiple pads. For example, a single unit can have 100 wells. As we explained is typical for midstream contracts, all development from these wells is dedicated to the same mid-stream agreement. Under the Proposed Rule the unit as a whole would be subject to a royalty free flaring limit of 1,050 Mcf per month and if any single well or collectively all the wells flare more than 4,000 Mcf per month for three months in a row, all 100 wells could be subject to shut in.

In this example, should the operator have need to flare only 20 Mcf in a month from each well due to a midstream outage, the unit flaring would still easily exceed the 1,050 threshold. Worse yet, if there is a longer-term issue in the basin where the unit is located, all wells within the unit could be subject to shut-in – resulting in greater overall losses of liquids production.

In contrast, three wells with production reported to ONRR using the lease number are subject to royalty free flaring of 1,050 Mcf per month and if the wells flare more than 4,000 Mcf per month for three months in a row. These wells on a single lease can flare significantly more with less risk of shut in than wells dedicated to CAs and units with more development.

Under this proposal, by drilling fewer wells per CA or unit an operator could increase operational certainty and have less risk of shut in when there are midstream upsets. This again creates a perverse incentive for less efficient approaches, potentially stranding reserves, utilizing greater surface space, and increasing potential emissions by employing more equipment. A more reasonable approach would be to establish a per-well limit or threshold that would help avoid this unintended consequence and bring more parity between operation types.

K. Provide a Precise Definition of High-Pressure Flare and Distinguish from Low-Pressure Flares.

1. Comment Summary:

BLM proposes that high pressure flare be defined as "an open-air flare stack of flare pit designed for the combustion of natural gas leaving a pressurized production vessel (such as a separator or a heater-treater) that is not a storage vessel." Unfortunately, that generic description does not provide a distinction between or among low-pressure and high-pressure flares. This ambiguity creates numerous technical and safety issues.

2. Proposed Revisions:

To alleviate these issues, and to provide additional clarification and certainty, AXPC suggests as one alternative definition the following:

- *High Pressure (HP) Gas*: Anything that goes to flare that would normally go to sales; and

- *Low Pressure (LP) Gas*: Associated gas from separation equipment that would not normally go to sales without compression (Examples: heater treater gas, storage vessel gas, vapor recovery tower gas, etc.);

- *VRT (vapor recovery tower) Gas*: Associated gas from a low pressure separator upstream of tank battery.

3. Additional Commentary and Supporting Analyses:

As proposed, the standard for high pressure flares will include equipment typically recognized within the industry as low pressure flaring equipment. This is because the language in the proposed definition for high pressure flares is broad and lacks specific equipment or pressure references. If some low pressure flares do get included unintentionally under this definition, operators will be expected to satisfy the meter uncertainty requirements for meters placed on this equipment. This sets up an impossible scenario for operators to satisfy the proposed meter uncertainty standards. We do not believe that this is the intent of BLM in drafting the rule.

Instead, as drafted, it appears that BLM is trying to meter gas that could be routed down a sales line but for various reasons is instead flared. This gas could potentially be sold and royalty bearing, but for the event triggering the need to flare. In contrast, gas that needs further compression and that will not be routed to sales is more typically combusted at lower pressure flaring equipment.

L. The Requirement to Utilize Orifice Meters to Measure High Pressure Flare Volumes Presents Safety Concerns and Technical Challenges– Section 3179.9(b)(5).

1. Comment Summary:

Under NTL-4A, operators routinely measured or estimated volumes of gas vented or flared. Operators could rely upon specific criteria to determine when measurement was required. The current proposal still allows operators to measure or estimate volumes of gas vented or flared from wells and other facilities on a lease unit, or CA. However, this BLM proposal now would require measurement of all high-pressure flares flowing more than 1,050 Mcf /month using an orifice meter. The BLM proposal does not explain the derivation of that number so AXPC is unable to comment on it, nor does the proposal explain why orifice meters were selected by BLM. The BLM proposal also requires the use of an orifice meter and requires a achieve an overall measurement uncertainty within ±5 percent.

AXPC's members have significant concerns about the mandatory use of orifice meters on high-pressure flares. An orifice meter reports flow by measuring the differential pressure over a constricting orifice plate. In prescribing the use of an orifice meter on a high-pressure flare, the constriction of the orifice plate causes a significant safety risk. Most flaring is a part of a safety system for pressure release. The constriction could limit the release of gas in such scenarios and risks a separator or pipeline rupture. Additionally, hydrocarbon liquids will likely pool in front of

the plate, creating additional uncertainty to the reported flow rate, and could also be considered safety concern when the plate is pulled.

Orifice meters are not designed for the broad flow rates that a high-pressure flare experiences. Orifice meters cannot be designed to report with a low uncertainty *(i.e.*, +/-5%) at low rates without requiring an enormous differential pressure at the high rates of high-pressure flares. A high-pressure flare needs a meter that can measure from high to low rates 300:1 or 150:1. An orifice meter struggles at rates of > 10:1. During an event, a high flow rate could very easily damage the orifice plate. Until replaced, a bend in the plate would add a significant error to the reported flow rate.

A flare essentially has two modes: normal flare, and event flare. During normal flaring, the flow rate is low, and composition fairly known. During an event, the flow rate is considerably higher, and unknown composition. The +/- 5% uncertainty is not achievable with an orifice meter. When an operator pulls an orifice meter it is sometimes necessary to blow down the unit, resulting in both waste and emissions to the atmosphere. The act of removing/inserting orifice plates in an orifice meter in flare service is also a safety concern, as upsets occur without warning.

2. Proposed Revisions:

We recommend that any BLM final rule expressly allow for technical flexibility and for consideration of other methods. BLM should revise the Proposed Rule to provide flexibility in measurement and metering technology to allow the use of any measuring equipment that conforms to the most current edition of the API Manual of Petroleum Measurement Standards Chapter 14.10, Measurement of Flows to Flares. This flexibility is essential and consistent with the BLM goal of accurately measuring or estimating volumes of gas that are vented or flared.

Specifically, given the critical safety issues that would be created with mandating measurement of high-pressure flares by orifice meters only, we strongly urge BLM to remove this provision in 3179(b).

Additionally, the uncertainty requirement and all other measurement equipment related to high-pressure flares should conform to the API MPMS 14.10 instead of inapplicable requirements pertaining to standards for low FMPs.

3. Additional Commentary and Supporting Analysis:

AXPC appreciates BLM's attempt to revise its 2016 Rule and to move away from its requirements related to measuring of flared gas. Yet, the proposed language that BLM offers now is still troubling because of the significant safety risks that we can foresee with mandating orifice meters alone as a measuring device for high-pressure flares.

By way of background, various methods are used to measure flare volumes in the industry. For example, outlined below are some of the methods that just one of our member companies has used or tested in recent years across its assets.

Orifice flare measurement can be challenging to achieve an accuracy of +/-5% due to various challenges. Orifice meters are an accepted standard of gas measurement, but given the measurement type, it is best suited for applications with consistent range of gas flow rates. When applied at a flare it will either not read the low end or will over range on the high-end causing backpressure and potential safety concerns. Additionally, installing an orifice plate changes the pipe rating by introducing changes. There are orifice meters available that claim to achieve +/-5% accuracy, and these can be used for low temperature, high-pressure flares.

Thermal mass flare meters are also an acceptable method for measuring flare volumes. These meters claim to have an accuracy of +/-0.5% of the full scale or +/-0.2% repeatability. They calculate the volume based on a temperature-to-volume calculation, so if any liquid or grime touches the probe, it can skew the accuracy of +/-5%. These meters can work, but they can cause a lot of unnecessary cost due to frequent servicing.

Ultrasonic flare measurement in general is a very good way to achieve +/-5% accuracy when an option, but these meters are not always available or cost effective. There are a few different methods utilizing 1-2 path measurement or even clamp on transducers that can be installed depending on flow rates. Ultrasonic measurement has proven to be very reliable and accurate when used for measuring gas. The diagnostic features have been beneficial in pinpointing issues that occur that you would not be able to see with other measurement devices.

Mandating orifice meters has broader ramifications than just for high-pressure flares because the proposed definition of high-pressure flares is not specific to certain types of flares. Thus, given fluctuations in volumes to be expected within standard operations, orifice meters may be required across all flares regardless of volume. Yet, any meter for a high-pressure flare must accurately accommodate the broad production range from low to high flow rates.

Given that scenario, most flares are part of a safety system which needs to be able to instantaneously release pressure across a broad range of flowrates. Orifice meters have a limited range of measurement and could restrict gas releases and risk a separator or pipeline rupture.

In addition, because flare lines are typically sloped, an orifice meter in that application can cause fluid collection at the plate and can lead to (1.) a frozen, restricted flare line, or (2.) oil out the flare stack when a flare event sweeps out the liquids. Neither outcome is desirable to either BLM or the operator.

There are also a number of practical considerations that make the use of orifice meters unworkable. An orifice meter cannot be ranged to work on a high-pressure flare due to the high turndown requirement. A high-pressure flare might need a meter that can measure from high to low rates 300:1 (maybe 150:1). Yet, technically, our experience shows that an orifice meter struggles at > 10:1.

Most high-pressure flares, as that term is commonly understood to mean in the industry, are safety devices designed to instantaneously relief pressure from a facility when an upset occurs and reducing or eliminating the facility's ability to deliver gas to the gas gathering system and gas plant. Requiring only orifice meters for high-pressure flares could prevent the timely

release of pressure resulting in damage to the orifice plate or could increase the risk of a separator or flowline rupture.

Also, in our understanding of high-pressure flares, these flares are designed to burn a large range of gas flow rates. Orifice meters have a narrow range of rate measurement. Thus, based on our members' experience, operators are currently using thermal and/or ultrasonic meters for many of these high-pressure flares. These metering methods are acceptable industry standards under API MPMS Chapter 14.10. States such as New Mexico that have adopted gas measurement requirements also have not mandated one type of metering to the exclusion of all others[2] for these reasons.

Meter technology chosen for a particular application should instead be left to engineering analysis which considers operating conditions, accuracy requirements, desired turn down ratio, maintenance and calibration needs, and safety. Mandating the use of orifice meters (differential pressure reading devices) on a flare line is inappropriate.

In addition to the orifice meter requirement, BLM also requires a specified minimum degree of accuracy (less than 5%). This accuracy requirement is unachievable for orifice meters in this application as accuracy is dependent upon consistency of flow rates and gas composition (affected by operating conditions such as temperature and pressure). Variability outside of the specified ranges for either variable can dramatically impact accuracy.

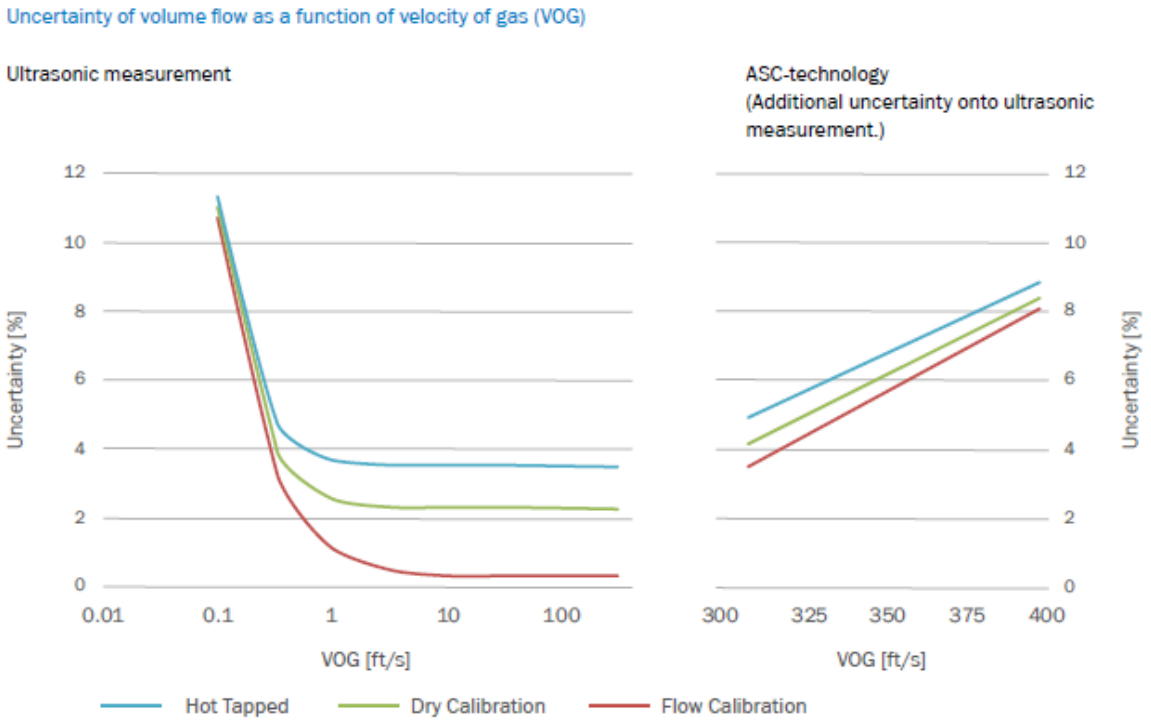
BLM should allow a process for the approval of metering devices, such as thermal mass meters, ultrasonic meters, or other technologies that have been vetted by Industry standards to provide verifiable measurements for high-pressure flares. Indeed, a variety of potential meter technologies may be considered for different applications. Specifically, for high pressure flare measurement ultrasonic, thermal mass and DP (orifice) meters should be allowable for the application depending upon the specific needs of the installation.

In addition, safety needs should be considered. These include the ability to install and maintain meters while facilities are operational, available flow capacity of pressure relieving system, and tolerance for any flow restrictions. BLM's requirements apply to both new installations as well as pre-existing sites. Retrofitting an existing facility is generally much more complicated than inclusion in a new build design. Existing constraints must be considered. Installation of a restriction (orifice plate) in an existing vent header may result in an inadequacy of the system to relieve necessary gas to the flare resulting in safety valve releases and in the worst case over pressuring of process vessels.

Given the wide range of operating conditions and facilities that will need to have high pressure flare lines metered, we believe that allowing for a range of technologies to be installed if they meet BLM's accuracy requirements is the necessary and ideal approach. In addition, this leaves the door open to new technologies. Included is an example uncertainty graph for an ultrasonic meter that meets BLM's accuracy requirement with flow rate velocities exceeding

[2] See NMAC Section 19.15.27(8)(F)(3).

~0.3 ft/sec, which illustrates capability to meet the BLM's measurement uncertainty limit and over a broader range than the typical orifice meter.



This exemplary uncertainty statement according to GUM (Guide to the Expression of Uncertainty in Measurement): ISO/IEC Guide 98-3:2008-09 shows a F1F-S in 1-path, 16" nominal pipe size configuration and assumes a gas temperature of 68 °F, ambient pressure, a typical molecular weight of greater than 27 g/mol.

For these reasons discussed, we recommend that if BLM is to require high-pressure flares to be measured, it should be done with a meter of an operator's choice but one that conforms to the industry accepted standard relating to the measurement of flow to flares -- API MPMS Chapter 14.10. It is critical that the regulatory language expressly reflect this optionality, rather than uniformly prescribe orifice meters. It would be insufficient for BLM to rely on discretionary departure or other authority that would place the burden on operators to justify in every case a regulatorily prescribed metering method is inappropriate. We provide recommended revisions below. Please also see our corresponding recommended revisions relating to Section 3179.11, Incorporation by Reference.

We also recommend that all technical provisions related to metering equipment be tethered to the API MPMS 14.10. We do not support BLM's proposal to add a collection of new technical provisions for the orifice meters. These provisions appear to be untethered to any particular industry standard for flaring meters and lack adequate technical justification.

The preamble explains that the orifice meter would be required to conform to a low-volume facility measurement point ("FMP") requirements under the Measurement Rule, 43 C.F.R. subpart 3175, but with lesser requirements for plate inspection, EGM verification,

determination of heating value, and overall measurement uncertainty.[3] At its Forum, BLM replied that this FMP linkage was established because "that is how production is reported."

Attempting to apply a subset of FMP requirements from the Measurement Rule to orifice metering as applicable to high-pressure flare is entirely inappropriate given key technical differences and functions each serves. Flares, for example, operate intermittently and any metering requirements related to flares should be based on targeted standards applicable specifically to flares. Flare flow measurement by its nature provides unique challenges in terms of extreme turndown, large pipe sizes/limited straight lengths, and variations in process pressure, temperature, and fluid composition. Even the Proposed Rule explains that the flare meters are not FMPs for the purpose of BLM's gas measurement rules at 43 C.F.R. subpart 3175.

As such, we recommend that at a minimum, Section 3179(b)(2) and (b)(5) be revised, and that metering equipment requirements for flaring as per the above-referenced API Standard should apply.

M. AXPC Has Several Recommendations to Make the Proposed Oil Storage Vessels Provision Viable – Section 3179.203.

We appreciate BLM's efforts to significantly streamline this section from the 2016 Rule in line with its statutory authority; and to provide appropriate flexibility to operators in making determinations of whether vapor recovery units ("VRUs") should be added to oil storage tanks based on technical and economic feasibility. We continue to recommend no further onerous or unnecessary provisions to be added to this section.

In lieu of providing a comment summary and proposed revisions for this issue generally, AXPC is breaking up its comments into several key topics related to oil storage tanks and VRUs.

1. Section 3179.203 – Recommend changing the term "oil storage vessels" to "oil storage tanks."

Similar to API, we recommend utilizing the term "oil storage tanks" because the term "tank" is consistent with the longstanding term under NTL-4A as well as industry practice in the upstream context. By contrast, BLM's proposed term "oil storage vessels" is derived from EPA's regulations, is overly broad, and is not appropriated targeted for BLM's application. For example, the storage vessel definition includes produced water tanks which should not be covered as those are not oil storage tanks and would require unnecessary sampling of all such tanks.

We also recommend consistency changes whereby, in all places, the correct reference is to "oil storage tanks." Our recommended changes are provided below.

[3] Proposed Rule at 73,604.

2. Section 3179.203(a) – Recommend revisions to reflect reasonable and prudent operator standard for thief hatches to not be left negligently unattended, and for noncompliance to be based on finding of negligence.

This proposed requirement reflects one of many industry practices under its reasonable and prudent operator standards that industry follows diligently. Yet, the Proposed Rule would attach a higher "immediate assessment of $1,000" on the operator if a thief hatch is left open and unattended, potentially reflecting a concern with air emissions which is separately regulated and enforced under the Clean Air Act regulations within other federal and state agencies' exclusive jurisdiction.

We also understand that under 43 C.F.R. Section 3163.1(b), "certain instances of noncompliance are violations of such a serious nature as to warrant the imposition of immediate assessments upon discovery"; however, our careful review fails to find an adequate basis to warrant such an assessment here within the context of BLM's statutory authority.

AXPC understands the agency's interest in reducing losses from a thief hatch left open and unattended. However, AXPC also emphasizes that there are situations where an open thief hatch may not have been "left open" and/or would not constitute waste. For example, AXPC acknowledges that if a thief hatch is simply negligently left open by a pumper, that may constitute waste. Conversely, a thief hatch could be triggered to open by excess pressure in a tank. That is precisely how a thief hatch is designed and intended to operate for safety reasons. A thief hatch that is discovered open because it was triggered and relieved pressure in a tank was not "left open;" rather it is operating as intended by its design.

AXPC believes that in those cases, there has been no avoidable loss and a $1,000 assessment would be inappropriate. We assert instead that any alleged noncompliance should be based on a finding of operator negligence and follow the BLM regulatory processes for findings of noncompliance and remedies under 43 CFR Subpart – 3163, Noncompliance, Assessments and Penalties.

In light of our comments, we provide revised language below for BLM's consideration.

3. Section 3179.203(b) – Support flexibility provided for additional vapor recovery unit requirements with a process provided for demonstrating technical and economic feasibility.

In response to comments relating to economic feasibility, we do not believe that any additional definition is needed for specifying economic or technical infeasibility. This demonstration should be left within BLM's discretion applying their expertise and judgement and allowing for operators to submit reasonable technical and economic data appropriate to their operations to demonstrate economic or technical infeasibility.

And given that VRUs are required with the option for an operator to make a demonstration of technical or economic infeasibility, we believe that the proposed one-year compliance deadline is reasonable.

Lastly, and consistent with our legal and general comments, BLM's proper consideration of technical and economic feasibility in this section should extend throughout the Proposed Rule, particularly in BLM's approach to delineating unavoidably lost and avoidably lost gas. BLM's total refusal to consider economic and other circumstances in portions of its rule is internally inconsistent and arbitrary.

4. Section 3179.203(c) – Recommend removal of unreasonable requirement for annual compositional sampling to demonstrate VRU infeasibility.

The requirement in proposed Section 3179.203 for oil tanks without VRUs to submit an annual compositional analysis of production flowing to the storage vessel is unreasonable and unnecessary for several reasons. While tank vapor composition is an important consideration in speciating tank emissions, our technical experience indicates that it is not needed to determine the amount of gas being flashed at the tank(s) or to determine the feasibility of installing a VRU on an oil storage tank. Estimates of the gas vapor volumes can easily be determined by knowing the oil gravity and the gas/oil ratio (GOR) of an oil well.

We also direct BLM's attention to existing computer programs and federal and state approved calculation methodologies for determining gas vapor volumes at the tanks that utilize oil gravity or GOR. Furthermore, our industry experience indicates that the most important factors in an economic decision to install a VRU are the average gas rates, tanks sealing, access to reliable electricity, and access to a low-pressure pipeline.

As such, we ask that BLM remove its proposed unnecessary compositional sampling for storage tanks without VRUs under Section 3179.203(c). As it stands, BLM has the discretionary authority to ask an operator to demonstrate why a VRU is not feasible. That process allows for alternative methods other than just compositional sampling to be considered in demonstrating whether or not a VRU is technically or economically infeasible.

There is no reasonable basis for additional annual compositional sampling requirements to demonstrate infeasibility of a VRU. We thus recommend deleting language applicable to VRUs but retaining the remainder of the proposed provisions for compositional analysis requirements as may be required in other reasonable contexts separately and outside of the VRU context.

In the alternative, if compositional sampling were to be required, it should only be required per reservoir. Through guidance, certain states such as Colorado also offer case-by-case approval processes for alternative site-specific methods for estimating emissions from storage tanks.[4] Guidance such as this would be helpful at the federal level. Many states have established criteria for what constitutes a representative sample, which can be used in place of a site-specific sample for estimating emissions at an oil and gas site. BLM should consider the criteria below for inclusion in the Proposed Rule.

[4] For example, Colorado's guidance under Colorado Air Pollution Control Division, PS Memo 14-03 at 12, 16, offers a process for approving alternative methods including site-specific emission factors for certain storage tanks to estimate emissions. (To provide a comprehensive survey, guidance such as this should be included in BLM's "Venting and Flaring: State and EPA Regulations" document that is part of this docket).

First, if the representative analysis is from a production/exploration site, it is critical that the representative sample has originated from the same producing reservoir/formation as the actual site stream. This geologic criterion is an appropriate limitation because it is likely that a reservoir will have the same basic material characteristics and components at least within a certain area of a reservoir. If the representative sample is for a natural gas midstream site, then this is not a factor. Instead, the representative inlet sample stream must contain less than 10% VOCs, as well as the represented sites.

Second, the petroleum liquids being produced at the representative and the actual site must have a similar API gravity, plus/minus three degrees, as an indicator that they are of similar composition. API gravity is used throughout the industry to differentiate between heavy/light oil and condensate streams and can be easily obtained by the owner/operator. In addition to the requirement of the API gravity being within three degrees, both sites must also be of the same site type; the two site types are (1) an oil site (API gravity≤40) with associated gases and (2) a natural gas site with associated liquid hydrocarbons (API>40) or a dry (less than 2 bbl of liquid per MMscf of natural gas) natural gas site.

Third, in order for the representative sample of a stream to give a reasonably accurate emissions estimate, the sample needs to be taken from a site that processes the stream in a similar manner as the actual site. The streams must be treated similarly at both sites because the output of one process may be in the inlet to another process.

Gas and liquids need to be separated in a similar manner since this can greatly affect the flash emissions due to the strong effect of changes in pressure and temperature on the vapor-liquid equilibrium. Since this is a critical portion of determining if a sample is representative, the process/conditioning/vessel immediately before where the sample is taken must be within ±20 psi pressure and ±20 degrees Celsius temperature of the process/conditioning/vessel stream that is being represented.

If two produced streams are from the same area in a formation, a difference in the depths most likely corresponds to a significant difference in the pressures. Even if a produced stream is from the same area and depth of a formation with similar character, the pressure and temperature can be affected by the way in which the stream is brought to the surface. For example, the casing that brings the produced stream to the surface can vary in width which affects the temperature and pressure.

The representative lab analysis reports should state the field and reservoir/formation from which the sample is produced from. This is necessary in order to document that both the representative site and actual streams sampled are from the same producing field and reservoir/formation. At the time of sampling, it is suggested that this information is given to analytical lab personnel and asked to be reported in the analysis. The Proposed Rules could include a provision that site-specific analyses may be requested by BLM if a change in circumstances warrants the submission of new sampling, such as a change in operator, work-over operations, or re-fracking.

5. Section 3179.203(c) – The RIA does not account for burdensome costs associated with the compositional sampling requirements where a storage tank is not equipped with a VRU.

Based on our extensive industry experience, our review of BLM's cost estimates of $500 per annual sampling to acquire a compositional (c10+) analysis indicates that those costs are underestimated because a single c10+ analysis often has a real world cost of $1500-3000 with labor and shipping. Also, these analyses are time intensive and usually take a minimum of a month to complete. BLM must account for those burdens. Yet, our assessment finds that the RIA has failed to adequately account for all costs associated with the annual compositional requirement.

N. The LDAR Requirements are Redundant– Section 3179.301

1. Comment Summary:

This section of the Proposed Rules would require operators to maintain a leak detection and repair (LDAR) program that is "designed to prevent the unreasonable and undue waste of Federal or Indian gas." For each lease operators would have to submit sundries to the BLM describing the LDAR program the operator plans to implement. In turn, the BLM would review that sundry and notify the operator if the proposed LDAR program is adequate. It would be beneficial if operators could have the option to submit a program for all facilities within a Field Office Jurisdiction for review and approval, because LDAR is typically planned and designed to be executed for all of an operator's facilities within a specific area (i.e., State or Basin) conducted within a scheduled time frame. This is how LDAR is currently conducted.

However, given EPA and state rules already require operators to maintain robust LDAR programs, the provisions of the Proposed Rule are redundant. In addition, the "unreasonable and undue" standard would provide operators with little, if any, real-world guidance of what would constitute a sufficient and reasonable LDAR program.

2. Proposed Revisions:

To avoid duplication of effort and redundant recordkeeping and reporting, BLM should require LDAR plans from operators only for wells and facilities that predate EPA's New Source Performance Standard OOOOa, and only for wells and facilities that are not covered by state LDAR requirements.

The BLM also should sunset its LDAR requirements when the emission guideline OOOOc performance standards have been implemented by the various states. In lieu of requiring LDAR plans for most wells, the BLM could require operators to provide to BLM the LDAR reports maintained by operators for EPA and states. Finally, BLM should permit operators to file LDAR reports for all wells operated on Federal and Indian lands rather than for individual leases. That would reduce redundant paperwork and would conform to how operators share information with EPA and states.

3. Additional Commentary and Supporting Analyses:

Operators already maintain robust LDAR programs. EPA's New Source Performance Standard OOOOa required operators to institute such a program. As a result, any operator who operated a well or similar facility constructed, reconstructed or modified after September 18, 2015, already has an LDAR program in place. Many states, including Colorado and New Mexico have parallel LDAR programs in place that often are more stringent than EPA's requirements.

Moreover, the New Source Performance Standards OOOOb will require any well or facility constructed, reconstructed, or modified after November 15, 2021, to implement still more robust LDAR programs. Finally, EPA also proposed new emission guidelines (EG OOOOc) for wells and facilities that predate November 15, 2021; those emission guidelines will be translated into performance standards by the various dates and will require more stringent LDAR policies. EPA anticipates the emission guidelines will be in place by 2027-2028.

The proposed BLM rules would duplicate EPA's rules already in place at wells and facilities constructed or modified after 2015, which arguably includes coverage for the majority of BLM's production in terms of waste prevention. Additionally, EPA's expected final rule will extend LDAR requirements to all wells, including those low producing wells which may have been constructed prior to 2015 and remain unmodified.

As a result, there is very little to be gained from BLM's proposal to require additional LDAR requirements on these same facilities, especially in terms of waste minimization. Rather, BLM's rules would be duplicative and would impose another layer of recordkeeping and reporting. By their very nature, especially taken in context with the full suite of federal and state LDAR program requirements in play, BLMs proposed LDAR requirements venture inappropriately into the realm of air quality regulation which at the federal level is the sole province of EPA.

O. The Proposed Rule Conflicts with BIA Legal Framework and Regulations Governing Operational standards for Indian leases and Indian Mineral Development Agreements.

1. Comment Summary:

The Department of the Interior is legally required under a number of controlling statutes to consider economics when evaluating operations on Indian Minerals. The Proposed Rules need to be revised to account for these statutory and fiduciary obligations to Native American Tribes.

2. Proposed Revision:

BLM should incorporate economics into its analysis for decisions related to the development of Indian Minerals. This is particularly true when development could be delayed, shut-in, or curtailed. Indian lands are not Public Lands and the Department of the Interior must consider whether or not development is in the best interest of the Native American mineral owner. Furthermore, BLM needs to explain its regulatory authority to apply part 3170 to leases and IMDA agreements administered by BIA.

3. Additional Commentary and Supporting Analyses:

BLM is legally required to consider economics when evaluating operations on Indian Minerals. Oil and Gas leases with Native Americans (both Tribes and Allottees) and Indian Mineral Development Agreements are governed by several different controlling statutes. The most common Indian Mineral Leasing Statutes used for the issuance of Indian oil and gas leases are: (1) the Indian Mineral Leasing Act of 1938 (25 USC §§ 396a-396g; *see also* 25 C.F.R. pt. 211); and (2) the Indian Mineral Development Act of 1982 (25 USC §§ 2101-2108; *see also* 25 C.F.R. pt. 225).

The regulations promulgated under the Indian Mineral Leasing Act apply to minerals owned by Tribes which are held in trust by the United States. 25 C.F.R. § 211.1(a). DOI is required to apply the regulations in a manner that ensures that Indian mineral owners "desiring to have their resources developed are assured that they will be developed in a manner that maximizes their best **economic interests** and minimizes any adverse environmental impacts or cultural impacts resulting from such development." *Id.* (emphasis added). The regulations implementing the Indian Mineral Development Act provide even greater deference to the wishes of the Tribal mineral owner. They state:

> These regulations are intended to ensure that Indian mineral owners are permitted to enter into minerals agreements that will allow the Indian mineral owners to have more responsibility in overseeing and greater flexibility in disposing of their mineral resources, and to allow development in the manner **which the Indian mineral owners believe will maximize their best economic interest** and minimize any adverse environmental or cultural impact resulting from such development. Pursuant to section 4 of the IMDA (25 U.S.C. 2103(e)), as part of this greater flexibility, where the Secretary has approved a minerals agreement in compliance with the provisions of 25 U.S.C. chap. 23 and any other applicable provision of law, the United States shall not be liable for losses sustained by a tribe or individual Indian under such minerals agreement. However, as further stated in the IMDA, the Secretary continues to have a trust obligation to ensure that the rights of a tribe or individual Indian are protected in the event of a violation of the terms of any minerals agreement, and to uphold the duties of the United States as derived from the trust relationship and from any treaties, executive orders, or agreements between the United States and any Indian tribe.

25 C.F.R. § 225.1 (emphasis added).

Finally, the federal government's statutory authority over mineral leasing on Allotted Indian lands is based in the Indian Long-Term Leasing Act of 1909, codified at 25 U.S.C. § 396. This statute likewise places fiduciary-like duties on the Secretary to ensure development of allottee minerals.

The regulations the Secretary has issued pursuant to 25 U.S.C. § 396 are codified, in pertinent part, at 25 C.F.R. Part 212. They apply "to lands or interests in lands the title to which is held, for any individual Indian, in trust by the United States." 25 C.F.R. § 212.1(a). Their purpose is to ensure that individual Indian mineral owners "desiring to have their resources

developed are assured that they will be developed in a manner that maximizes their **best economic interests** and minimizes any adverse environmental impacts or cultural impacts resulting from such development." *Id.* (emphasis added).

Not all BLM regulations apply to Indian owned minerals administered by BIA. The currently published Code of Federal Regulations for Tribal and Allotted oil and gas leases incorporates by reference only certain parts of BLM's regulations:

- 43 CFR part 3160—Onshore Oil and Gas Operations;
- 43 CFR part 3180—Onshore Oil and Gas Unit Agreements: Unproven Area,
- 43 CFR part 3260—Geothermal Resources Operations,
- 43 CFR part 3280—Geothermal Resources Unit Agreements: Unproven Areas,
- 43 CFR part 3480—Coal Exploration and Mining Operations, and
- 43 CFR part 3590—Solid Minerals (Other Than Coal).

See 25 C.F.R. § 212.4; 25 C.F.R. § 211.4; and 25 C.F.R. § 225.4.

Exploration and Mining Operations currently include, but are not limited to, resource evaluation, approval of drilling permits, mining and reclamation, production plans, mineral appraisals, inspection and enforcement, and production verification. Those regulations apply to leases or permits issued under the regulations for Tribal and Allotted oil and gas leases.

Fundamentally, BIA and BLM have a fiduciary duty to Indian tribes and Allottees to consider economics when making decisions with respect to Tribal and Allottee oil and gas lease development and management.

P. The Proposed Rule Significantly Overlaps with On-Going EPA Rulemakings.

1. Comment Summary:

BLM needs to analyze the compliance timeframes for EPA's current rulemaking and ensure that implementation and compliance time periods do not conflict or place an undue burden on operators and regulatory entities that need to comply with both EPA and BLM's rulemaking provisions where there is partial or complete overlap. In particular, BLM needs to analyze and resolve the overlaps between the two agency rulemakings regarding storage vessels, pneumatic devices, unloadings, and leak detection and repair. Additionally, BLM needs to reconsider and revise its cost analysis and related justification to ensure benefits are not claimed in duplicate by both EPA and BLM.

2. Additional Commentary and Supporting Analyses:

We note that EPA's proposed New Source Performance Standards and emission guidelines will supersede BLM's proposed provisions respecting storage vessels, pneumatic devices, unloadings, and leak detection and repair. Those standards for new sources already have taken effect by operation of law as of November 15, 2021.

Based on the process outlined by EPA in their Proposed Rules (86 Fed. Reg. 63110, 63255-63256 (Nov. 15, 2021)), we anticipate the emission guidelines existing sources (all

sources the construction of which preceded November 15, 2021) will be placed into effect by the various states by 2027-2028, if not sooner. As a result, all sources located on federal and Indian lands and constructed prior to November 15, 2021, will be covered by these New Source Performance Standards by approximately 2027-2028.

Q. BLM Needs to Update and Revise the Proposed Rule's Cost-Benefit Analysis.

AXPC appreciates the work BLM has done in trying to define both the potential benefits, net benefits, and costs associated with of the several Proposed Rule provisions as well as the aggregate costs and savings, including royalty revenues. However, we have several questions and concerns regarding these analyses.

As we mentioned earlier, EPA estimates it will complete its rulemaking by mid-2023, with the new source provisions already in effect as of last November 2021, and the existing source requirements expected to have been adopted by the respective states and will be binding on oil and gas operators by 2028, if not before.

Overlapping regulations create rampant opportunities for conflicting language and interpretations, which would not result in further prevention of undue waste within BLM's purview. BLM cannot dismiss this clear potential for conflicts just by vaguely stating that "the BLM will maintain an awareness of developments in EPA's regulations and will make adjustments to the final rule as appropriate."

Further, in justifying its Proposed Rules EPA is counting the monetized value of oil and gas not lost as a result of the new rules but instead ultimately sent to market as a benefit in its own benefit-cost calculations. That will include oil and gas captured instead of vented, flared, leaked, or that otherwise may have been lost at new, modified, and reconstructed sites post November 15, 2021. This includes the monetized value of the oil and gas at new or existing locations on federal lands that otherwise might have been vented, flared, leaked, or otherwise lost as a benefit of its Proposed Rules.

However, we note that in those portions of BLM's Regulatory Impact Statement dealing with the costs, benefits, and net benefits of individual proposed measures, BLM includes values that can be estimated from 2023/2024 through 2031, years that overlap with EPA's estimations for the same sources. For example, in estimating annual royalties, gas capture, and operator benefits attributable to the proposed flaring provisions, BLM's calculations commence in 2022 and continue through 2031. The same is true for (1) well drilling, completions, and maintenance, and (2) pneumatic equipment, storage vessels. Table 8.2 in the RIA uses the same time horizon for evaluating total benefits for provisions related to tanks, pneumatics, and LDAR.

As a consequence, it appears that at least in part BLM and EPA simultaneously are "taking credit" for the same ostensible benefits to justify their respective Proposed Rules. This duplicative credit does not provide any additionality and would not be a viable justification under a valid cost-benefit analysis.

In addition, it appears that while operators will incur substantial costs in complying with BLM's proposals, those costs will be spread over a much shorter time frame than envisioned in the RIA in calculating benefits and net benefits. As a result, it appears the RIA does not fairly

depict the economics of the Proposed Rule. Existing supply chain shortages for equipment will increase even more from the demand created by BLM's waste prevention rules in a short period of time. This may ultimately inhibit or even entirely frustrate an operator's ability to comply with both BLM's rules and EPA's revised program due to lack of equipment available on the market and the near-term exponential rise in demand. This very situation is already occurring in some areas as a result of recently expanded state programs.

Moreover, it is likely that in a significant number of cases facing rising costs on lower producing wells or inability to comply due to supply chain restraints, a prudent operator's rational economic decision will be to shut in wells that otherwise would continue producing. If so, AXPC is concerned that the nation will lose the benefit of a large number of lower producing wells that, in the aggregate, make a meaningful contribution to the nation's oil and gas production.

AXPC recommends BLM revisit its benefit-cost analysis to eliminate any benefits or net benefits that will be achieved by implementation of EPA rules at both new and existing facilities and locations. AXPC anticipates that doing so will measurably reduce any benefits that can be claimed by BLM for its Proposed Rules and will imply significantly greater costs for operators.

IV. Conclusion

AXPC has included for BLM's review and consideration an attachment to this comment letter, **Exhibit A**, which includes a list of Section-by-Section Comments and proposed redlines to the Proposed Rules' text consistent with the comments provided here.

AXPC appreciates the opportunity to submit these comments and looks forward to engaging in a collaborative dialog with BLM that will facilitate revision and clarification of these complex rules to promote a viable regulatory framework for waste prevention. Thank you for your time and consideration. Please do not hesitate to contact me at 202-920-1507 if you have any questions or would like additional information.

Respectfully,

Wendy Kirchoff

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Enclosure: Exhibit A – Section-by-Section Comments

Exhibit A

Section-by-Section Comments

In addition to the above general comments, AXPC provides the below section-by-section comments in blue font to BLM's Proposed Rule. Throughout these comments, AXPC provides suggested regulatory text revisions in redline format to assist BLM in review of recommendations offered. Recommended language for removal is indicated in ~~strikethrough text~~, except where AXPC recommends deletion of a proposed section in its entirety. Recommended language for addition is indicated in underlined text.

1. Section 3162.3-1(j) – AXPC recommends language for Waste Minimization Plans that better aligns with BLM's statutory authorities, operators' ability to obtain and legally share information, and which limits administrative burdens on agency and operator resources.

The Proposed Rule would create new administrative strains on agency resources as well as substantial burdens on operators. Section 31762.31-(j) requests information that is unnecessary to determine gas capture, confidential, proprietary, and outside the operator's control to obtain. While confidential information can potentially be marked confidential following BLM's process, we strongly encourage BLM to not mandate the production of confidential information that creates legal vulnerabilities for operators; particularly when portions of the requested information are not necessary or central to ensure gas capture planning. Additionally, BLM's proposed waste minimization plan requirements are similar to requirements in some states, and where operators are required to comply with state requirements, those state plan requirements should be considered to be equivalent to BLM's requirements, and no further information should be required.

When filing new APDs, operators only need to provide the following to prove adequate gas capture capacity planning and waste minimization efforts: the estimated completion date; the estimated initial gas flowrates; the gas processing company they are contracted with (if allowed); or, if not covered, the operator's planned gas gathering/processing company, or alternative uses for the gas (if applicable). Any final rule should refine its Waste Minimization Plan criteria accordingly.

1.1 Section 3162.3-1(k) – AXPC recommends removing the proposed section enabling BLM to approve with conditions, defer, or deny an APD.

As an initial matter, there appears to be a typographical error in the Proposed Rule's cross-reference, as the referenced definition is in proposed § 3179.3. Proposed Section 3162.3-1(k) would allow BLM to either conditionally approve, defer action on, or deny an APD "[w]here the available information indicates that drilling an oil well could result in the unreasonable and undue waste of Federal or Indian gas (as defined in § 3179.4)." BLM, however, does not have the authority to delay or deny APDs involving private or state mineral interest due to their rule requirements. Though the Proposed Rule exempts state and private lands from certain of its

provisions, those same exemptions do not appear to extend to the Waste Minimization Plan provisions which would preclude the issuance of drilling permits over State and Fee minerals. We believe this was an oversight by BLM, because the agency was mindful of this issue in other portions of the Proposed Rule.

As the District of Wyoming held the 2016 "Rule's application to State and private mineral interests is unlawful." *Wyoming*, 493 F. Supp. 3d at 1081. The MLA's authority regarding mixed CAs is limited to federal interests, and "does not provide broad authorization for the BLM to impose comprehensive federal regulations similar to those applicable to operations on Federal lands on State or privately-owned tracts or interests[.]" *Id.* at 1082 (citing 30 U.S.C. § 226(m)). "Accordingly, BLM's authority in pooled arrangements is limited to rates of development and production for purposes of avoiding the 'waste' of Federal mineral interests, similar to the rights of any participant in communitized arrangements and is not a grant of general regulatory authority over the State and private mineral interests in the communitized units." *Id.* "[T]he BLM cannot leverage its limited authority to manage and collect royalties from the Federal portion of pooled Federal, State and private mineral interests operating under long-standing communitization agreements to impose comprehensive regulations on State and private land and mineral interests, particularly where only a fraction of the benefits claimed by BLM as supporting the Rule have anything to do with the prevention of waste or increased royalty revenues." *Id.* at 1085. The same legal constraints apply to the limitations proposed by BLM to preclude the issuance for drilling permits across State and Fee minerals. Thus, BLM cannot deny an APD for mixed CAs based on alleged failure to satisfy BLM's Waste Minimization Plan criteria.

1.2 Section 3162.3-1(j)-(k) – Recommended Revisions

§ 3162.3–1 Drilling applications and plans.

(j) When submitting an Application for Permit to Drill ~~a~~an development oil well with expected associated gas venting or flaring, the operator must ~~also~~ submit a plan to minimize waste of associated natural gas from that development well. If multiple wells will be drilled on the same lease, CA, or unit, the operator may alternatively submit a single plan to minimize waste of associated natural gas from that lease, CA, or unit in a Sundry Notice to the authorized officer, which if approved shall apply to all development oil wells included in the Sundry Notice and no further plan of waste minimization shall be required in the Applications for Permits to Drill for such wells. This section does not apply to operations and production equipment on State or private tracts, even where those tracts are committed to a federally approved unit or communitization agreement. The waste minimization plan must demonstrate how the operator plans to capture associated gas upon the start of oil production, or as soon thereafter as reasonably possible, including an explanation of why any delay in capture of the associated gas would be necessary. ~~The BLM may deny an Application for Permit to Drill if the operator fails to submit a complete and adequate waste minimization plan.~~ The waste minimization plan ~~must~~ should include the following information to the extent it is available to the operator and is not proprietary or confidential:

(1) The anticipated completion date of the proposed well(s);

(2) A description of anticipated production, including:

(i) The anticipated date of first production;

(ii) ~~The expected oil and gas production rates and duration from the proposed well. If the proposed well is on a multi-well pad, the plan must include the total expected production for all wells being completed;~~

~~(iii) The expected production decline curve of both oil and gas from the proposed well; and~~

~~(iv) The expected Btu value for gas production from the proposed well.~~

(3) ~~Certification that the operator has provided one or more midstream processing companies with information about the operator's production plans, including the anticipated completion dates and gas-production rates of the proposed well or wells;~~

(4) ~~Identification of a gas pipeline to which the operator plans to connect that has sufficient capacity to accommodate the anticipated production of the proposed well(s), and information on the pipeline, including, to the extent that the operator can obtain it, the following information:~~

~~(i) Maximum current daily capacity of the pipeline;~~

~~(ii) Current throughput of the pipeline;~~

~~(iii) Anticipated daily capacity of the pipeline at the anticipated date of first gas sales from the proposed well;~~

(iv) Anticipated ~~throughput of the pipeline at the anticipated~~ date of first gas sales from the proposed well;

~~(v) Any plans known to the operator for expansion of pipeline capacity for the area that includes the proposed well;~~

(5) If an operator cannot identify a gas pipeline with sufficient capacity to accommodate the anticipated production of the proposed well(s), the waste minimization plan must also include:

(i) A gas-pipeline-system location map of sufficient detail, size, and scale to show the field in which the proposed well will be located, ~~and all existing gas trunklines within 20 miles of the well~~. The map must also contain:

(A) The name and location of the gas processing plant(s) closest to the proposed well(s), and the name and location of the intended destination processing plant, if different;

~~(B) The name and location of the operator of each gas trunkline within 20 miles of the proposed well;~~

~~(C) The proposed route and tie-in point that connects or could connect the subject well to an existing gas trunkline;~~

(ii) ~~The **total** volume of produced gas, and percentage of total produced gas, that the operator is currently flaring or venting from wells in the same field and any wells within a 20-mile radius of that field; and~~

~~(iii) A detailed evaluation, including estimates of costs and returns, of opportunities for on-site capture approaches, such as compression or liquefaction of natural gas, removal of natural gas liquids, or generation of electricity from gas.~~

~~(6) Any other information demonstrating the operator's plans to avoid the waste of gas production from any source, including, as appropriate, from pneumatic equipment, storage tanks, and leaks.~~

~~(k) Where the available information indicates that drilling an oil well could result in the unreasonable and undue waste of Federal or Indian gas (as defined in § 3179.4), the BLM may take one of the following actions:~~

~~(1) Approve the application subject to conditions for gas capture and/or royalty payments on vented or flared gas; or~~

~~(2) Defer action on the permit in the interest of preventing waste. The BLM will notify the applicant that its application, if approved, could result in unreasonable and undue waste of Federal or Indian gas and specify any steps the applicant could take for the permit to be issued. If the applicant does not address the potential for unreasonable and undue waste to the BLM's satisfaction within 2 years of the applicant's receipt of the BLM's initial notice under this paragraph, the BLM may deny the permit.~~

2. Section 3179.1 – NTL-4A should be Superseded in its entirety to avoid uncertainty.

While the preamble to the Proposed Rule states that, if Proposed Rule is adopted, NTL-4A will have been superseded in its entirety, BLM must also clearly specify in the actual rule text itself that NTL-4A is superseded in its entirety. The Proposed Rule's current regulatory text is unclear and provides that "portions" of NTL-4A are superseded "pertaining to, among other things . . .." Any final rule should refine this language accordingly.

2.1 Section 3179.1 – Recommended Revisions

§ 3179.1 Purpose.

The purpose of this subpart is to implement and carry out the purposes of statutes relating to prevention of waste from Federal and Indian (other than Osage Tribe) oil and gas leases, conservation of surface resources, and management of the public lands for multiple use and sustained yield. This subpart supersedes ~~those portions of~~ Notice to Lessees and Operators of Onshore Federal and Indian Oil and Gas Leases, Royalty or Compensation for Oil and Gas Lost (NTL–4A) in its entirety as to production occurring on or after the effective date ~~pertaining to, among other things, flaring and venting of produced gas, unavoidably and avoidably lost gas, and waste prevention~~.

3. Section 3179.2 – Scope. AXPC supports exclusions for state and private tracts.

BLM and courts have previously recognized that BLM has limited authority over state and private mineral interests, including situations described in what the Proposed Rule labels "mixed ownership" units or CAs. AXPC appreciates BLM's efforts to take a positive step forward by proposing to exempt state and private lands from several proposed provisions. *See* Section 3179.2(b). Nonetheless, AXPC Members believe that the Proposed Rule still overreaches to regulate non-federal and non-Tribal interests in certain situations. The scope of the applicability of Subpart 3179, recommends the below clarification to the Proposed Rules.

Consistent with our general comments, AXPC also requests that BLM clarify Section 3179.2(a) and justify the Proposed Rule's application to Indian leases and IMDA agreements, which cannot be regulated as public lands and are distinct from federal leases and agreements issued under the Mineral Leasing Act.

3.1 Section 3179.2 – Recommended Revisions

§ 3179.2 Scope.

(a) Except as provided in ~~provided in~~ paragraph (b), this subpart applies to:

(1) All onshore Federal and Indian (other than Osage Tribe) oil and gas leases, units, and communitized areas;

(2) Indian Mineral Development Act (IMDA) agreements, unless specifically excluded in the agreement or unless the relevant provisions of this subpart are inconsistent with the agreement;

(3) Leases and other business agreements and contracts for the development of Tribal energy resources under a Tribal Energy Resource Agreement (TERA) entered into with the Secretary, unless specifically excluded in the lease, other business agreement, or TERA;

(4) ~~Wells, equipment, and operations on State or private tracts that are committed to a federally approved unit or communitization agreement defined by or established under 43 CFR subpart 3105 or 43 CFR part 3180.~~

(b) Sections 3179.6, 3179.201, 3179.203, and 3179.301–.303 of this subpart apply only to operations and production equipment located on a Federal or Indian oil and gas lease. They do not apply to operations and production equipment on State or private tracts, even where those tracts are committed to a federally approved unit or communitization agreement.

(c) For purposes of this subpart, the term "lease" also includes IMDA agreements.

4. Section 3179.3 Definitions and acronyms – AXPC recommends the following refinements to BLM's proposed definitions.

In this technical comment, AXPC will explain the basis for its recommended redline change directly below each proposed definition.

Automatic ignition system means an automatic ignitor and, where needed to ensure continuous gas supply for either continuous or on-demand combustion~~, a continuous pilot flame~~.

Comment: In general, this definition should be broadened to allow for various types of equipment that can be used to ensure that flares are properly lit. Requiring a continuous flame is wasteful and unnecessary. In addition, it precludes existing technology and future technologies that can achieve the desired result of proper control without incurring additional waste, expense, and emissions.

Economic infeasibility means that the operator can demonstrate that the expected revenue (net any associated operating costs) generated from the natural gas volumes captured on the lease, CA, or unit is not sufficient to cover the nominal cost of the capital expenditures required to capture the natural gas volumes from that lease, CA, or unit over a payout period of 18 months.

Comment: It would be helpful for BLM to articulate a standard that will be used to determine economic infeasibility under the Proposed Rule. This term is used in numerous places in the Proposed Rule technical requirements. AXCP Members found

the definition of economically marginal wells in 43 § 3173.1 to be informative as to how BLM has made similar economic determinations in the past. This proposed language is based on potentially applicable portions of that definition.

~~*Gas well* means a well for which the energy equivalent of the gas produced, including its entrained liquefiable hydrocarbons, exceeds the energy equivalent of the oil produced. Unless more specific British thermal unit (Btu) values are available, a well with a gas-to-oil ratio greater than 6,000 standard cubic feet (scf) of gas per barrel of oil is a gas well.~~

Comment: AXPC recommends deleting this definition in its entirety and incorporating the GOR standard throughout the rule. The term "gas well" is defined under State Law and it would be confusing and difficult to coordinate differing state and federal definitions in State and BLM approvals related to a particular well or CA. To eliminate this concern, AXPC recommends eliminating this definition and then making changes to the references to "oil well" and "gas well" throughout the Proposed Rule to incorporate the specific GOR standard identified by BLM. This approach would keep the BLM's structure and substance of the Proposed Rule in-tact, while removing the potential conflict with existing State definitions for the term "gas well."

High-pressure flare means an open-air flare stack or flare pit designed for the combustion of natural gas that does not require compression and which could be transported through the connected sales pipeline. ~~leaving a pressurized production vessel (such as a separator or heater-treater) that is not a storage vessel.~~

Comment: The Proposed Rule includes a definition for High-Pressure Flare which is overly broad. As a result, some sources which are commonly recognized will get categorized as low pressure flares. This will impact whether or not any meters placed on those flares could actually satisfy the uncertainty requirements proposed by BLM. Industry measurement professionals believe that a better approach may be to focus on whether nor not the flare is combusting gas that would otherwise be suitable for placement in the sales line and does not require further compression. In contrast, gas combusted from low pressure sources typically requires compression and cannot be routed to sales. In addition, metering flared gas from low pressure sources is considerably more complex with additional accuracy and safety concerns to consider.

Leak means a release of natural gas from a component that is not associated with normal operation of the component~~, when such release is:~~
~~(1) A hydrocarbon emission detected by use of an optical-gas-imaging instrument;~~
~~(2) At least 500 ppm of hydrocarbon detected using a portable analyzer or other instrument that can measure the quantity of the release; or~~
~~(3) A hydrocarbon emission detected via visible bubbles detected using soap solution~~.
Releases due to normal operation of equipment intended to vent as part of normal operations, such as gas-driven pneumatic controllers and safety-release devices, are not considered leaks unless the releases exceed the quantities and frequencies expected during normal operations. Releases due to operator errors or equipment malfunctions or from control equipment at levels

that exceed applicable regulatory requirements, such as releases from a thief hatch negligently left open, a leaking vapor recovery unit, or an improperly sized combustor, are considered leaks.

> Comment: We recommend streamlining the more detailed leak definition (i.e., removing parts (1)-(3)), which was added in response to comments to the 2016 Rule and its LDAR program requirements which were more prescriptive. The Proposed Rule's LDAR provisions are significantly streamlined relative to the 2016 Rule, and the "leak" definition should reflect the current proposal.

Liquids unloading means the removal ~~of an accumulation~~ of liquid hydrocarbons or water in the wellbore that accumulated during production of a completed gas well.

> Comment: This language is streamlined as consistent with API's submitted comments to the Proposed Rule.

Lost oil or lost gas means produced oil or gas that escapes containment, either intentionally or unintentionally, or is flared before being removed from the lease, unit, or CA, and cannot be recovered. Lost oil or lost gas does not include uses set forth in subpart 3178 of this part.

> Comment: The definition of lost oil or lost gas should expressly exclude royalty-free lease use permitted under other BLM regulations. Throughout the preamble to the Proposed Rule and as part of established practices under NTL-4A, beneficially used gas has not been considered "lost." The Inflation Reduction Act most recently codified this principle by exempting from royalty all produced "gas used or consumed within the area of the lease, unit, or communitized area for the benefit of the lease, unit, or communitized area[.]" Public Law 117-169, Section 50263(b)(2).

Low-pressure flare means any flare that combusts natural gas which is routed from separation or storage equipment that is of insufficient pressure to be transported through the connected sales pipeline without going through compression ~~does not meet the definition of high-pressure flare~~.

> Comment: Gas combusted from low pressure sources typically requires compression and cannot be routed to sales. This helps better differentiate what type of gas is typically flared through low pressure combustion.

VRT (vapor recovery tower) Gas means associated gas from a low pressure separator upstream of the tank battery.

Unreasonable and undue waste of gas means a frequent or ongoing loss of gas that is economically feasible to avoid and that could be avoided without causing an ultimately greater loss of equivalent total energy than would occur if the loss of gas were to continue unabated.

> Comment: BLM has always considered economics when determining whether the loss of gas is avoidable or unavoidable. It is unclear now why BLM is abandoning this consideration whole cloth from the proposed rule. The removal of economic considerations

renders the rule unwieldy at best, substantially increases litigation risk, and significantly reduces BLM's ability to efficiently administer this regulatory program. Moreover, it does not provide any regulatory certainty, and in turn business certainty, to industry.

It is important for any waste prevention rules to have symmetry with the other regulatory aspects of the federal onshore oil and gas program. This is particularly true because BLM must weigh economics when determining if a lease is in fact still valid and in effect. Leases are perpetuated by production in paying quantities – requiring parties to take economics and costs into account when perpetuating the lease.

5. Section 3179.4 –The Proposed Rule's list of 14 items should not alone determine what gas is "unavoidably lost."

Proposed 3179.4(b) adopts too narrow a view of unavoidably lost gas. Rather, BLM should include additional categories of unavoidable loss that reflect losses that do not qualify as "waste" under BLM's existing regulatory definitions, or "unreasonable and undue waste" as defined in the Proposed Rule. This requires BLM to broaden its categories listed in this Section and the creation of an exception process, allowing operators to prove when less-common losses of gas (which don't qualify as unreasonable or undue waste) should also qualify as unavoidable losses. Not covered by BLM's categorized buckets are: (1) longer force majeure events, (2) flaring gas from exploratory oil wells when a field is first discovered and midstream won't invest in the initial buildout; and, (3) the flaring of off-spec gas that cannot be sold/marketed. A prudent operator who has not been negligent but yet is unable to meet pipeline quality specifications and as such, cannot send that gas to a sales line, should be able to claim that gas as "unavoidably lost." Gas can fail to meet pipeline specifications for a variety of reasons, such as a high H2S content, oxygen levels that exceed specification, and low heating value generally caused by a high CO2 content. Gas composition is dictated by the particular reservoir and the ability to modify the composition at the well site can be very limited. Safety is generally the most common reason for rejection of gas streams. For additional clarity, we provide recommended language for such circumstances under Section 3179.4(b)'s covered list of "unavoidably lost" operations and sources.

Most critically, the Proposed Rule must provide a means for operators to request additional unavoidable loss determinations. Accordingly, we recommend that BLM add a catch-all unavoidably lost category based on such requests and provide such language below.

5.1 Section 3179.4 -- Recommended Revisions.

§ 3179.4 Determining when the loss of oil or gas is avoidable or unavoidable.
For purposes of this subpart:
(a) Lost oil is "unavoidably lost" if the operator has not been negligent; the operator has taken prudent and reasonable steps to avoid waste; and 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.
(b) Lost gas is "unavoidably lost" if the operator has not been negligent; the operator has taken prudent and 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 gas is lost from the following operations or sources:

(1) Well drilling;

(2) Well completion and related operations, subject to the limitations in § 3179.102;

(3) Initial production tests, subject to the limitations in § 3179.103;

(4) Subsequent well tests, subject to the limitations in § 3179.104;

(5) Exploratory coalbed methane well dewatering;

(6) Emergency situations, subject to the limitations in § 3179.105;

(7) Normal operating losses from a natural-gas-activated pneumatic controller or pump;

(8) Normal operating losses from a storage vessel or other low-pressure production vessel that is in compliance with § 3179.203 and § 3174.5(b);

(9) Well venting in the course of downhole well maintenance and/or liquids unloading performed in compliance with § 3179.204;

(10) Leaks, when the operator has complied with the leak detection and repair requirements in §§ 3179.301 and 302;

(11) Facility and pipeline maintenance, such as when an operator must blow-down and depressurize equipment to perform maintenance or repairs;

(12) Pipeline capacity constraints, midstream processing failures, or other similar events that prevent oil-well gas from being transported through the connected pipeline, subject to the limitations in § 3179.8;

(13) Flaring of gas from which at least 50 percent of natural gas liquids have been removed and captured for market, if the operator has notified the BLM through a Sundry Notices and Report on Wells, Form 3160–5 (Sundry Notice) that the operator is conducting such capture and the inlet of the equipment used to remove the natural gas liquids will be an FMP;

(14) Flaring of gas from a well that is not connected to a gas pipeline, to the extent that such flaring was authorized by the BLM in the approval of the Application for Permit to Drill;

(15) Lost gas from exploratory wells more than five miles from existing gathering infrastructure with a GOR less than 6,000 standard cubic feet (scf) of gas per barrel of oil.

(16) Flaring of gas that does not meet pipeline specifications;

(17) Gas vented or flared due to force majeure events beyond the operator's control; or

(18) Any lost gas which the operator can demonstrate does not qualify as an unreasonable or undue loss of gas.

(c) Lost oil or gas that is not "unavoidably lost" as defined in paragraphs (a) and (b) of this section is "avoidably lost."

6. **Section 3179.6 – For continuity, AXPC recommends renaming this section "Venting Prohibitions" or "Venting Limitations". AXPC further recommends better allowing for technological equipment advances and elimination of immediate assessments in this Section.**

Proposed Section 3179.6 is identical to the 2016 Rule entitled "Venting prohibition," but instead inserts a different heading of "Safety." BLM should consistently retitle this Section in the Proposed Rule, which is better suited to its provisions. Essentially, BLM is re-proposing the same regulatory text from the 2016 Rule that was rejected in federal court as an impermissible air quality regulation. *Wyoming*, 493 F. Supp. 3d at 1068 ("For waste minimization and resource conservation purposes, no difference exists between eliminating excess methane by venting it or flaring it – the same amount is wasted in either event. . .. Thus, the Rule's venting prohibition prioritizes global climate change over regional ozone control, without changing the amount of natural gas that is wasted.").

The most problematic aspect of BLM's proposal is paragraph (b) mandating automatic ignition systems for each flare that is not continuously lit. There are now technologies that do not require the continuous burning of gas and that can ignite flares on-demand. There is no justifiable basis for this proposal as a waste reduction method. However, AXPC members believe that a reasonable compromise would be to amend this provision to allow for a wider range of technologies to be installed on flares.

BLM already has adequate enforcement authority in place if operators fail to have adequate equipment on site and immediate assessments are not warranted or justified, as they were originally imposed under the Site Security & Measurement Rules as liquidated damages under the lease agreement for breached related to measurement and product security questions. No such questions exist here, and BLM has not articulated in the Proposed Rule any justification for imposing liquidated damages in the form of immediate assessments for this issue. Moreover, EPA and states already have flare requirements, and an additional overlay of BLM requirements and fines is unnecessary. If BLM discovers an unlit flare and believes it violates EPA or state requirements, BLM may report it to the appropriate agency. Making assessments "immediate" for unlit flares also does not account for unforeseen events such as weather. Accordingly, BLM in any final rule should remove proposed Section 3179.6(b).

6.1 Section 3179.6 -- Recommended Revisions

§ 3179.6 Venting Limitations and Flare Location ~~Safety~~.

(a) The operator must flare, rather than vent, any gas that is not captured, except:

(1) When flaring the gas is technically infeasible, such as when volumes are too small to flare;

(2) Under emergency conditions, when the loss of gas is uncontrollable, or venting is necessary for safety;

(3) When the gas is vented through normal operation of a natural-gas-activated pneumatic controller or pump;

(4) When the gas is vented from a storage vessel, provided that § 3179.203 does not require the capture or flaring of the gas;

(5) When the gas is vented during downhole well maintenance or liquids unloading activities performed in compliance with § 3179.204;
(6) When the gas is vented through a leak;
(7) When venting is necessary to allow non-routine facility and pipeline maintenance, such as when an operator must, upon occasion, blow-down and depressurize equipment to perform maintenance or repairs; or
(8) When a release of gas is necessary and flaring is prohibited by Federal, State, local, or Tribal law or regulation, or enforceable permit term.
(b) All flares or combustion devices must be equipped with an automatic ignition system. Upon discovery of a flare that is negligently not lit or equipped with an on-demand ignition system, the BLM may subject the operator to an immediate assessment of $1,000 per violation. ***(Alternatively, 8(b) could be stricken entirely)***
(c)The flare must be placed a sufficient distance from the tank battery containment area and any other significant structures or objects so that the flare does not create a safety hazard. The prevailing wind direction must be taken into consideration when locating the flare.

7. Section 3179.7 and Section 3179.8 – AXPC offers several technical comments and revisions related to the flaring limits utilized in Sections 3179.7 and 3179.8.

7.1 AXPC recommends amending the Proposed Rule to eliminate references to "gas wells" and "oil wells" and replace these terms with a GOR standard to eliminate contradiction with State law definitions for these terms.

AXPC recommends deleting the proposed definition of "gas well" in its entirety and incorporating the GOR standard throughout the Proposed Rule. The term "gas well" is defined under State Law and it would be confusing and difficult to coordinate differing state and federal definitions in State and BLM approvals related to a particular well or CA. To eliminate this concern, AXPC recommends eliminating this definition and then making changes to the references to "oil well" and "gas well" throughout the Proposed Rule to incorporate the specific GOR standard identified by BLM. This approach would keep BLM's the structure and substance of the Proposed Rule in-tact, while removing the potential conflict with existing State definitions for the term "gas well."

The following provides proposed changes that could be made to the substantive provisions of the Proposed Rule to reference the GOR standard.

7.2 The monthly limits on flaring appear to be arbitrary.

As explained in our general comments, the Proposed Rule establishes arbitrary monthly limits on oil-well gas flaring due to pipeline capacity constraints, midstream processing failures, or "similar events" that prevent produced gas from being transported through the connected pipeline. BLM proposes to set those limit at 1,050 Mcf per month, per lease, unit, or CA. Any additional flaring is automatically avoidably lost and subject to royalty. And for ongoing flaring after three consecutive months at more than 4,000 Mcf per month, BLM threatens additional enforcement including shut-in. The exact same limits are applied, without regard to the number

of wells developed within the agreement area, the underlying reservoir, or the geographic size of the area, or whether the lease at issue is a federal or Indian lease. BLM should substantially modify this provision.

If BLM decides to retain numeric volume limits on flaring specifically from wells connected to pipelines in the final proposed rule, AXPC suggests an alternate approach. Where oil-well gas must be flared due to pipeline capacity constraints, midstream processing failures, or similar events that prevent produced gas from being transported through the connected pipeline, for no longer than 24 hours, per lease, unit, or CA, such flared gas will be considered "unavoidably lost" and royalty-free. This time period affords time for operators to observe the cause and severity of the midstream interruption, correspondingly determine whether to shut in or flare with payment of royalty, and perform manual shut-ins where needed. For royalty-free flaring beyond 24 hours, lessees would have the burden to demonstrate to BLM that such additional flaring is unavoidably lost.

7.3 BLM should require notice to and input from Indian Lessors on shut-ins and curtailments.

Additionally, Indian Lands are not Public Lands. Indian lessors should be given notice and a say in the decision as to whether or not production is shut-in on a lease, as this decision will impact them financially.

7.4 Section 3179.7 and Section 3179.8 -- Recommended Revisions

§ 3179.7 ~~Gas-well gas~~ Gas from Wells with a GOR greater than 6,000 standard cubic feet (scf) of gas per barrel of oil.

Gas ~~well gas~~ produced from wells with a GOR greater than 6,000 standard cubic feet (scf) of gas per barrel of oil may not be flared or vented, except where it is unavoidably lost pursuant to § 3179.4(b).

§ 3179.8 ~~Oil-well gas~~ Gas from Wells with a GOR less than 6,000 standard cubic feet (scf) of gas per barrel of oil.

(a) Where gas produced from wells with a GOR less than 6,000 standard cubic feet (scf) of gas per barrel of oil ~~oil-well gas~~ must be flared due to pipeline capacity constraints, midstream processing failures, or other similar events that prevent produced gas from being transported through the connected pipeline, any gas flared for 24 hours after such events up to ~~1,050~~ ____ [INSERT LIMIT] Mcf per month, per well~~lease, unit, or CA,~~ of such flared gas will be considered "unavoidably lost" for the purposes of §§ 3179.4(b)(12) and 3179.5.

(b) Where substantial volumes of gas produced from a well with a GOR less than 6,000 standard cubic feet (scf) of gas per barrel of oil ~~oil-well gas~~ ~~are~~ is flared, and result~~s~~~~ing~~ in the unreasonable and undue waste of Federal or Indian gas, the BLM may order the operator to curtail or shut-in production as necessary to avoid the unreasonable and undue waste of Federal or Indian gas. The BLM will not issue a shut-in or curtailment order under this paragraph unless the operator has reported flaring in excess

of [INSERT LIMIT]~~4,000~~ Mcf per well per month for 3 consecutive months and the BLM confirms that flaring is ongoing.

(c) If a BLM order under paragraph (b) of this section would adversely affect production of oil or gas from non-Federal and non-Indian mineral interests (*e.g.,* production allocated to a mix of Federal, State, Indian, and private leases under a unit agreement), the BLM may issue such an order only to the extent that the BLM is authorized to regulate the rate of production under the governing unit or communitization agreement. In the absence of such authorization, the BLM will contact the State regulatory authority having jurisdiction over the oil and gas production from the non-Federal and non-Indian interests and request that that entity take appropriate action to limit the waste of gas. If a BLM order under paragraph (b) of this section applies to Indian mineral interests, BLM must notify the Indian mineral owner and seek concurrence from the BIA prior to issuing the order.

8. **Section 3179.9 – AXPC provides several technical comments and recommendations regarding BLM's proposal related to the estimation and measurement of vented and flared volumes.**

The Proposed Rule additionally requires operators to measure or estimate volumes of gas vented or flared from wells, facilities, and equipment on a lease, unit, or CA, and report volumes under applicable ONRR requirements, except that it would now specifically require measurement of all "high-pressure flares" with more than 1,050 Mcf/month flaring and require such measurement to be performed using an orifice meter. This proposed section is a significant departure from a longstanding policy upon which operators came to rely that allowed volumes to be estimated, rather than measured, based on certain criteria, and more importantly, allowed for other methods to be approved by BLM. In addition, flares are generally designed to handle intermittent flows and at maximum expected production rates given the nature of their purpose. Establishing an arbitrary limit on an estimated unknown quantity is challenging.

While AXPC supports BLM continuing to allow the option to estimate or measure for most actions, the newly created requirement to report high-pressure flaring is arbitrary and lacking reasoned justification. Furthermore, estimated volumes should not be required to be reported to ONRR unless they are royalty bearing. As such, only royalty-bearing losses should be required to be reported to ONRR. BLM has sufficient authority to require operators to maintain measurement records for Federal and Indian leases, which can be inspected upon request. The same standard should apply here.

Additionally, AXPC believes that BLM needs to account for those situations where a low producing well is not anticipated to flare over the volumetric limit of 1050 Mcf pre month, but unexpectedly encounters a month of flaring that exceeds the threshold. In these cases, a meter will not have been installed and likely is not necessary on an ongoing basis. AXPC recommends text below be amended to require the 1050 Mcf exceedance occur in two consecutive months to justify the need for installing a meter. This will afford operators necessary time to order and install a meter, while still allowing estimation of volumes for any royalties due on the flared gas.

We also encourage BLM to reconsider Section 3179(b) given the critical issues of technical feasibility and safety that we foresee with mandating orifice meters alone without consideration to any other alternative for measuring flaring of high-pressure flares.

We recommend that any BLM final rule expressly allow for technical feasibility as contemplated under NTL-4A and for consideration of other methods to be used rather than mandating measurement of high-pressure flare by orifice meters only. Meter technology chosen for a particular application should be left to engineering analysis which considers operating conditions, accuracy requirements, desired turn down ratio, maintenance and calibration needs, and safety. Mandating the use of orifice meters (differential pressure reading devices) on a flare line creates safety concerns for many operators.

In addition to the orifice meter requirement, BLM also requires a specified minimum degree of accuracy (overall measurement uncertainty of +/- 5%). This accuracy requirement is unachievable for orifice meters in this application as accuracy is dependent upon consistency of flow rates and gas composition (affected by operating conditions such as temperature and pressure). Variability outside of the specified ranges for either variable can dramatically impact accuracy.

A variety of potential meter technologies may be considered for different applications. Specifically, for high pressure flare measurement ultrasonic, thermal mass and DP (orifice) meters are considered for the application depending upon the specific needs of the installation. In addition, safety needs should be considered. These include the ability to install and maintain meters while facilities are operational, available flow capacity of pressure relieving system, and tolerance for any flow restrictions. BLM's requirements apply to both new installations as well as pre-existing sites. Retrofitting an existing facility is generally much more complicated than inclusion in a new build design. Existing constraints must be considered. Installation of a restriction (orifice plate) in an existing vent header may result in an inadequacy of the system to relieve necessary gas to the flare resulting in safety valve releases and in the worst case over pressuring of process vessels.

Given the wide range of operating conditions and facilities that will need to have high pressure flare lines metered, we believe that allowing for a range of technologies to be installed should be acceptable if they meet BLM's accuracy requirements. In addition, this leaves the door open to new technologies.

To that end, at the conclusion of our comments on this section of the Proposed Rule, we recommend language based on conformance with established and accepted industry standards.

8.1 Section 3179.9 -- Recommended Revisions

§ 3179.9 Measuring, estimating, and reporting volumes of gas vented and flared.
(a) The operator must measure or estimate all volumes of gas vented or flared from wells, other than de minimis releases due to normal operation of equipment intended to vent as part of normal operations are not subject to this section, from facilities, and equipment on a lease, unit PA, or communitized area and maintain records of such

measurements and estimates for seven years; these measurement and estimates records must be produced to the authorized officer for inspection upon request. The operator must report all avoidable losses to the Office of Natural Resources Revenue ~~those volumes~~ under applicable Office of Natural Resources Revenue (ONRR) reporting requirements (see the ONRR *Minerals Revenue Reporter Handbook* for details on reporting vented and flared volumes).

(b) The following requirements apply to all high-pressure flares flaring 1,050 Mcf per month for 2 consecutive months or more:

(1) Flaring from all high-pressured flares must be metered by a meter which complies with API MPMS Chapter 14.10 ~~measured by orifice meters~~. Starting on [DATE 1 YEAR ~~6 MONTHS~~ AFTER THE EFFECTIVE DATE OF THE FINAL RULE], an appropriate meter must be installed at all high-pressure flares.

(2) The meter must be inspected annually and if the operator uses an orifice meter, the orifice plate for the meter must be pulled and inspected at least once a year.

(3) The meter must be verified at least once a year.

(4) The quality of the flared gas must be determined at least once a year.

(A) A C6+ analysis must be performed for any gas samples used in determining the quality of the flared gas.

(B) The gas sample must be taken from one of the following locations:

(i) At the flare meter;

(ii) At the gas FMP, if there is a gas FMP on the lease, CA, or unit ~~at the well site~~ and the gas composition is the same as that of the flare-meter gas; or

(iii) At another location approved by the BLM.

~~(5) Measurement at the high-pressure flare must achieve an overall measurement uncertainty within ±5 percent.~~

(6) The operator must take radiant heat from the flare into consideration when determining the placement of the flare meter.

~~(7) Except as otherwise specified in this paragraph, measurement from high-pressure flares must meet the measurement requirements for a low-volume FMP under subpart 3175 of this part.~~

(c) For all other flares, the operator must:

(1) Measure flared volumes in accordance with paragraph (b) of this section;

(2) Estimate flared volumes utilizing sampling and compositional analysis conducted pursuant to, or consistent with, § 3179.203(c); or

(3) Estimate flared volumes using another method approved by the BLM.

(d) If a flare is combusting gas that is combined across multiple leases, unit PAs, or communitized areas, the operator may measure or estimate the gas at a single point approved by the Authorized Officer ~~at the flare~~ and ~~but~~ must use an allocation method approved by the BLM to allocate the quantities of flared gas to each lease, unit PA, or communitized area.

(e) Measurement points for flared volumes are not FMPs for the purposes of subpart 3175 of this part.

9. Section 3179.10 – Royalty-free flaring determinations should continue to be based on relevant individualized factors.

Section 3179.10 in the Proposed Rule would terminate within six months all existing approvals of royalty-free flaring for production going forward. BLM, however, should not categorically deem gas that is unavoidably lost one day instead avoidably lost the next day without first undertaking an analysis of whether a reasonable and prudent operator would capture and market the gas for the mutual benefit of the lessor and lessee.

More importantly, BLM should clarify that pending Sundry Requests submitted under NTL-4A will be processed under NTL-4A since that was the law in place at the time of the venting and flaring event.

9.1 Section 3179.10 – Recommended Revisions

§ 3179.10 Determinations regarding royalty-free flaring.

(a) For venting and flaring that occurred before the effective date of this rule, NTL-4A shall apply when BLM makes royalty-free flaring determinations.

(b) Approvals to flare royalty free, which are in effect as of the effective date of this rule, will continue in effect until [DATE 6 MONTHS AFTER THE EFFECTIVE DATE OF THE FINAL RULE]. From this date forward, the royalty-bearing status of all flaring will be determined according to the provisions of this subpart.

(c) The provisions of this subpart do not affect any determination made by the BLM before or after [EFFECTIVE DATE OF THE FINAL RULE], with respect to the royalty-bearing status of flaring that occurred prior to [EFFECTIVE DATE OF THE FINAL RULE].

10. Section 3179.11 – AXPC provides the following technical comments regarding incorporating standards by reference in the Proposed Rule.

AXPC supports incorporating GPA's two standards as proposed for overall guidance for compositional analysis for samples under pressure where the sample is expected to have C10+ components. Subject to our recommended changes, we also suggest one additional GPA standard that is applicable and should be included. Recommended language is provided below.

However, the preamble notes that BLM's intention is to use these standards to further the purpose of Section 3179.203.[1] Specifically, it notes that pressurized samples from the last pressurized vessel upstream of the storage tank would be used to determine whether the volumes of gas lost from the storage tank are of sufficient quantity and quality to justify the installation of a vapor recovery unit.[2] Another option could be for BLM to allow a computer simulation model to satisfy the requirement.

[1] Proposed Rule at 73,604.
[2] Id.

We ask that any final rule be clear in revising Section 3179.203(c) and untethering the rule's incorporation by reference of the two sampling documents to that specific section.

Given our recommendation relating to Section 3179.9(b) to require metering requirements to conform to an accepted industry standard, AXPC further recommends incorporating that standard under this section. API has published API Manual of Petroleum Measurement Standards 14.10, 2nd edition, *Natural Gas Fluids Measurement - Measurement of Flow to Flares (MPMS 14.10).* This standard addresses measurement of flow to flares and includes application and installation considerations, calibration, operation, and calculations, and is specifically relevant to the measurement provision under Section 3179.9(b). This standard is widely used in industry and is also incorporated by reference into similar New Mexico regulations.[3]

This standard is available at: https://www.api.org/products-and-services/standards/important-standards-announcements/mpms14-10

10.1 Section 3179.11 – Recommended Revisions

§ 3179.11 Incorporation by Reference (IBR).
Certain material is incorporated by reference into this subpart with the approval of the Director of the Federal Register under 5 U.S.C. 552(a) and 1 CFR part 51. To enforce any edition other than that specified in this section, the BLM must publish a rule in the Federal Register, and the material must be reasonably available to the public. All approved incorporation by reference (IBR) material is available for inspection at the Bureau of Land Management (BLM) and at the National Archives and Records Administration (NARA). Contact Amanda Eagle with the BLM at: Division of Fluid Minerals, 301 Dinosaur Trail, Santa Fe, NM 87505, telephone 505–954–2016; email *aeagle@ blm.gov*; *https://www.blm.gov/ programs/energy-and-minerals/oil-and- gas*. The approved material is also available for inspection at all BLM offices with jurisdiction over oil and gas activities. For information on inspecting this material at NARA, visit *www.archives.gov/federal-register/cfr/ ibr-locations.html* or email *fr.inspection@nara.gov.* The material may be obtained from the following source:
(a) GPA Midstream Association (GPA), 6060 American Plaza, Suite 700, Tulsa, OK 74135; telephone 918–493– 3872.
(1) GPA Midstream Standard 2286– 14, Method for the Extended Analysis for Natural Gas and Similar Gaseous Mixtures by Temperature Program Gas Chromatography, Revised 2014 (''GPA 2286''), IBR approved for 43 Subpart 3179 generally~~§.203(c)~~.
(2) GPA Midstream Standard 2186– 14, Method for the Extended Analysis of Hydrocarbon Liquid Mixtures Containing Nitrogen and Carbon Dioxide by Temperature Programmed Gas Chromatography, Revised 2014. (''GPA 2186''), IBR approved for 43 Subpart 3179 generally ~~§ 3179.203(c)~~.
(3) GPA Midstream Standard 2103.20, Method for the Analysis for Natural Gas Condensate Mixtures Containing Nitrogen and Carbon Dioxide by Gas Chromatography, Rev. 2021. ("GPA 2103.20")

[3] NMAC Section 19.15.27(2)(F)(3).

(b) ~~[Reserved]~~ American Petroleum Association (API), 200 Massachusetts Avenue, NW, Washington DC 20001-5571. Telephone 202-682-8000.
(1) API Manual of Petroleum Measurement Standards (MPMS) Chapter 14.10 Measurement of Flow to Flares, 2nd Edition, Revised ["API MPMS 14.10"] [IBA approved for [requested] Section 3179.9(b)].
(c) [Reserved]

11. Section 3179.12 – The Proposed Rule language requiring operators to use all reasonable precautions to prevent waste is unnecessary and should instead be based on MLA concepts of reasonable and prudent operations.

This proposed provision imports the MLA's "reasonable precautions to prevent waste" term. 30 U.S.C. § 225. AXPC has no issue with BLM's regulations mirroring that statutory term. However, the proposed regulation itself is devoid of substance or guidance, or grounding in BLM's authority. Further notice and comment rulemaking should be undertaken to obtain stakeholder input on the propriety of measures that BLM may be considering. Because proposed Section 3179.12 is at best unnecessary, and at worst arbitrary and capricious and impermissibly vague, BLM should remove it from any final rule.

11.1 Section 3179.12 – Recommended Revisions

~~**§ 3179.12 Reasonable precautions to prevent waste.**~~
~~(a) Operators must use all reasonable precautions to prevent the waste of oil or gas developed from the lease.~~
~~(b) The Authorized Officer may specify reasonable measures to prevent waste as conditions of approval of an Application for Permit to Drill.~~
~~(c) After an Application for Permit to Drill is approved, the Authorized Officer may order an operator to implement, within a reasonable time, additional reasonable measures to prevent waste at ongoing exploration and production operations.~~
(d) ~~Reasonable measures to prevent waste may reflect factors including but not limited to relevant advances in technology and changes in industry practice.~~

12. Section 3179.101 – This Proposed Section needs an appeals process for loss of well control determinations due to operator negligence.

This provision provides that BLM will provide notification to the operator in writing when it determines that gas was lost due to operator negligence. AXPC requests that BLM provide clarifications on the process BLM will use to make such a determination, and avenues that will be available to the operator to appeal BLM's decision.

13. Section 3179.102 – For well completion and related operations, AXPC provides several technical comments and recommendations.

13.1 Sections 3179.102(a) and (b) – AXPC recommends reverting to 20,000 Mcf royalty-free flaring for new and existing completions consistent with the 2016 Rule; and removing the arbitrary binary approaches and limits set out in the Proposed Rule.

Contrary to BLM's overall stated approach to simply improve NTL-4A, this section departs from NTL-4A as well as the 2016 Rule limits with even more stringent royalty-free flaring limits that appear to be based on "consultation with certain operators" and "conversations with mid-size operators."[4] No other information is made available in terms of identifying the sample pool or resulting data analysis for the broad conclusions that the Proposed Rule draws upon for all segments of the oil and gas industry.

Our review indicates that limits both for new completions and existing completions appear to be not based on any quantitative data or substantiated evidence. Anecdotal examples based on a limited sample pool cannot be a sufficient reasonable basis for BLM's new flaring-free limits. BLM states, without pointing to data, that the flowback process has changed over the years and that many operators are not using temporary production equipment, that it is now standard practice to connect to a gas sales line as soon as possible, and that production is flowing directly to permanent production facilities after completion.[5] This is likely an overgeneralized statement when looking at the industry as a whole, which ranges in size and processes and that is subject to numerous factors and impediments outside operators' control.

Based on our members' extensive experience, while some operators may be using sand separators to enable new wells to flow through permanent production facilities, there is not enough equipment for all well completions to allow this approach for every completion. Also, based on our members' experience, we believe that since 2016, operators are generally drilling longer horizontal laterals which require larger fracture treatments and thus longer flowback times to recover these fracking liquids.

While NTL-4A did not address flaring during well completions, we recommend that if BLM proceeds in this direction, BLM at a minimum should revert to a 20,000 Mcf royalty free limit as recommended in the 2016 Final Rule for both new completions and existing completions for refractured wells where a well is connected to a gas pipeline.

13.2 Section 3179.102(a) – Recommend clarification for the phrase "gas that reaches the surface."

We provide clarifying language regarding "gas that reaches the surface" for each activity designated in the rule because it is unclear what "gas that reaches the surface" from well completion, post well completion, and drilling fluid recovery means.

[4] Proposed Rule at 73,605.
[5] *Id.*

In essence, operators cannot estimate gas reaching the surface until there is stable separator flow. As such, we recommend the following language below that clearly specifies the condition that triggers the start of measurement for royalty-free flaring and, subject to these conditions, the amount of Mcf of gas that may be flared royalty-free per the 2016 Rule language.

For consistency and clarity for all completions on this shared issue, we recommend that proposed section 3179.102(b) also be combined as one section.

13.3 Section 3179.102 – If increases in limits are not added as requested, AXPC recommends allowing BLM to increase limits specified in Sections 3179.102(a) and (b) by additional 30,000 Mcf based on requests submitted using a Sundry Notice.

During well tests subsequent to the initial production test, the operator may flare gas royalty free under § 3179.4(b)(4) for no more than 24 hours, unless BLM approves or requires a longer period. The operator must submit any request for a longer period under this section using a Sundry Notice. BLM inherently holds this discretion, and flexibility based on diverse operational circumstances is necessary for valid operation of any final rule.

13.4 Section 3179.102 – Recommended Revisions

§ 3179.102 Well completion and related operations.

(a) When a new completion is in the process of flowing back after being hydraulically fractured or when an existing completion is refractured and the well is connected to a gas pipeline,-the start of measurement of the royalty free flaring begins when stable separator flow has been achieved. Subject to these conditions, up to 20,000~~10,000~~ Mcf of gas during well completion, post-completion, and fluid recovery operations may be flared royalty-free.

~~(b) When an existing completion is refractured and the well is connected to a gas pipeline, up to 5,000 Mcf of gas that reaches the surface during well completion, post-completion, and fluid recovery operations may be flared royalty-free.~~

14. Section 3179.103 – For the initial production testing provisions, AXPC recommends several technical comments and revisions.

14.1 Section 3179.103(a) – AXPC recommends BLM continue to follow longstanding NTL-4A policy allowing for royalty-free flaring during initial well evaluation test for 30 days or 20,000 Mcf of gas (whichever occurs first) unless BLM accepts a longer period.

The preamble attempts to justify moving away from NTL-4A and the 2018 Rule's more "liberal limits" and returns to 20 MMcf from the 2016 Rule. No additional justification supported by data is provided in the preamble. BLM simply states that based on consultations with BLM state and field offices regarding their experiences with production testing, "BLM believes that it

would be rare for operators to exceed the royalty-free flaring limits proposed in this section."[6] Yet, beyond this belief and a label of "liberal limits," no further rationale is provided for lowering the limits.

We recommend that BLM continue to follow longstanding NTL-4A policy allowing for royalty-free flaring during initial well evaluation test for 30 days or 50 MMcf of gas (whichever occurs first).

14.2 Section 3179.103(a)(1) and (a)(4) – AXPC recommends removing two new qualitative triggers relating to adequate reservoir information and oil production beginning.

Longstanding practice has provided for royalty-free flaring based on quantitative limits including a time limit or volume limit. The Proposed Rule, like the 2016 Rule, adds new confusing subjective criteria including "when the operator determines that it has obtained adequate reservoir information from the well" and when "oil production begins." Neither of these terms is defined, which adds more layers of uncertainty and inconsistent application of these criteria. More importantly, proposed paragraph (a)(4) could negate all other criteria.

While we appreciate the change from 2016 in response to comments that allows BLM to increase the limit by an additional 30,000 Mcf for certain exploratory wells that provision, or allowing for more time under (b) and (c), all of these requirements are negated if oil production (i.e., sale of oil per BLM) has been deemed to begin. Yet, that trigger may be inadvertently and inconsistently applied earlier than intended under the Proposed Rule. For example, oil which has been separated during flow back and sent to a tank or to a pipeline, can be encountered early on. This oil is then sent through a sales meter within minutes of the separation process, which can unintentionally trigger the "oil production begins" requirement. This Proposed Rule is purportedly focused on minimizing waste of gas and collecting appropriate royalties on avoidably lost gas. The unexpected encountering of oil prior to actual production beginning is an inappropriate trigger for the gas becoming subject to royalties. It is also difficult to consistently apply.

Both Sections 3179.103(a)(1) and 3179.103(a)(4) introduce very confusing qualitative triggers, and we ask BLM to remove these provisions. BLM instead should rely on the volume and time limits as has been its longstanding practice without including additional vague arbitrary standards.

14.3 Section 3179.103 – Recommended Revisions

§ 3179.103 Initial production testing.
(a) Gas flared during a well's initial production test is royalty-free under §§ 3179.4(b)(3) and 3179.5(b) of this subpart until one of the following occurs:
~~(1) The operator determines that it has obtained adequate reservoir information for the well;~~

[6] Proposed Rule at 73,605.

~~(2)~~ (1) 30 days have passed since the beginning of the production test, except as provided in paragraphs (b) and (d) of this section; or
~~(3)~~ (2) The operator has flared 20,000 Mcf of gas, including volumes flared under § 3179.102(a), except as provided in paragraph (c) of this section;.
~~(4) Oil production begins.~~
(b) The BLM may extend the period specified in paragraph (a)~~(2)~~(1) of this section, not to exceed an additional 60 days, based on testing delays caused by well or equipment problems or if there is a need for further testing to develop adequate reservoir information.
(c) The BLM may increase the limit specified in paragraph (a)~~(3)~~(2) of this section by up to an additional 30,000 Mcf of gas for exploratory oil wells in remote locations where additional testing is needed in advance of development of pipeline infrastructure.
(d) During the dewatering and initial evaluation of an exploratory coalbed methane well, the 30-day period specified in paragraph (a)(~~2~~1) of this section is extended to 90 days. The BLM may approve up to two extensions of this evaluation period, of up to 90 days each.
(e) The operator must submit its request for a longer test period or increased limit under paragraphs (b), (c), or (d) of this section using a Sundry Notice.

15. Section 3179.201 – AXPC provides several technical comments and revisions related to the BLM's proposal for pneumatic controllers and pneumatic diaphragm pumps.

The oil and gas industry has already taken active steps to control emissions from pneumatic equipment in its operations and are continuing to evaluate and implement new controls as feasible. We appreciate the streamlining of the prior two sections in the 2016 rule to one section in the Proposed Rule. We also appreciate certain exceptions for low volume producers. Yet, this section gives us pause because the additional benefits these requirements are expected to provide are not readily apparent given the EPA's existing and pending regulations, and state rules such as New Mexico that govern this very set of equipment. We recommend removing this section entirely based on our comments below.

15.1 Section 3179.201(a) – AXPC recommends removing this section entirely and defer to EPA's current and pending NSPS Subpart OOOO, OOOO(a), OOOO(b), and OOOO(c) requirements relating to controlling emissions from pneumatic controllers or pneumatic diaphragm pumps.

Our review of EPA's current and pending regulations establishing New Source Performance Standards ("NSPS") for the Oil and Natural Gas Sector, as well as regulations of other states such as New Mexico, indicates that there is already considerable regulatory effort in place and ongoing measures to modify and upgrade these requirements. EPA's comprehensive chart on rules that apply under NSPS for Oil and Gas Sources covered by EPA is instructive.[7]

[7] See EPA, Oil and Natural Gas Sources Covered by EPA's Proposed New Source Performance Standards (NSPS) and Emissions Guidelines, by Site. Available at: https://www.epa.gov/system/files/documents/2022-11/EPA%27s%20Oil%20and%20Natural%20Gas%20Supplemental%20Proposal

These efforts by EPA have the intended purpose of reducing the emissions of natural gas from these sources, which provide "co-benefits" that BLM also recognizes for Federal and Indian leases.[8] Thus, subjecting operators to identical or similar requirements on pneumatic equipment, but with different compliance timelines across different federal agencies and states, will result in little benefit while administrative costs will be high both for agencies and operators with onerous regulatory and economic burdens being placed on regulated entities. In addition, the accelerated timeline provided by BLM may introduce environmental disbenefits as operators may be forced to prioritize conversion of lower production sites where the controllers generally actuate less frequently.

Specifically, BLM's Proposed Rule would require operators producing more than 120 Mcf of gas or 20 Bbls of oil per month to use low bleed (not exceed 6 standard cubic feet (scf) per hour) pneumatic controller or pneumatic diaphragm pumps beginning one year after the effective date of the rule. But BLM does not consider if the pneumatics it is requiring to be replaced are continuous or intermittent, which has a large impact on the gas released. Nor does BLM consider in its cost estimates the number of operators with access to reliable electricity that have converted to air powered pneumatics.

Meanwhile, current NSPS Subpart OOOO(a) regulates certain continuous bleed natural gas driven pneumatic equipment based on where the pneumatic controller is located.[9] An onshore natural gas processing plant requires a zero bleed rate whereas all pneumatic controllers located elsewhere would require the pneumatic controller to operate at a natural gas bleed rate no greater than 6 standard cubic feet (scf) per hour.[10] Thus, many of the sources that BLM seeks to regulate already have to comply with these overarching NSPS requirements. As the RIA analysis acknowledges, 27.8 percent of devices listed in the 2019 GHG Inventory are already low-bleed as reported by EPA.[11] Our own experience indicates that this is likely an underestimated number; but regardless, with the impending proposed EPA NSPS requirements, including those that extend to states, this percentage is expected to sharply increase.

This is because the Proposed Rule relating to NSPS Subpart OOOO(b) includes pneumatic controller standards for all collections of natural gas driven controllers (intermittent and continuous bleed) with an VOC and methane emission rate of zero.[12] Exceptions are included for sites in Alaska where on-site power is unavailable but the exemptions from NSPS OOOO and OOOO(a) based on functional need are not included.[13] Exceptions also include emissions that are collected and sent to a sales line and self-contained pneumatic controllers.[14] Moreover,

[8] RIA at 13.
[9] Note: NSPS Subpart OOOO in 2012 first mandated the low-bleed requirement for pneumatic controllers with compliance date of October 15, 2013. NSPS Standards for Performance for Crude Oil and Natural Gas Production, Transmission and Distribution, 77 Fed. Reg. 49.489, Aug. 16, 2012.
[10] 86 Fed. Reg. 63,110, 63,178-63,179 (Nov. 15, 2021); 87 Fed. Reg. 74,703 (Dec. 6, 2022).
[11] RIA at 39.
[12] 87 Fed. Reg. at 74,755-74,756. Note: These comments do not reflect API's position on EPA's proposed rules relating to NSPS Subparts OOOO(b) and OOOO(c). Those comments will be submitted separately to EPA as part of the official comment process on those proposed rules. The comments herein are simply provided for context and to support our position on why BLM's proposed section relating to pneumatic equipment should be removed. Comments are due on the EPA proposals by February 13, 2023.
[13] Id.
[14] Id.

unlike prior NSPS Subpart OOOO regulations, EPA's proposed rule would include both continuous and intermittent bleed of gas from pneumatic controllers.[15]

There are also separate NSPS Subpart OOOO(c) rules being proposed which will serve to guide future state rulemakings to regulate existing sources and which will require updates from states. BLM needs to fully consider the compliance deadlines relevant to these NSPS requirements and as they will apply to states.

For example, BLM's guidance on "Venting and Flaring: State and EPA Regulations," as included in the docket, notes that there are no requirements pertaining specifically to pneumatic equipment at oil and gas production sites.[16] However, New Mexico's NMAC Section 20.2.50.122 clearly specifies standards for natural gas-driven pneumatic controllers and pumps located at well sites, tank batteries, gathering and boosting stations, natural gas processing plants, and transmission compressor stations. The New Mexico requirements in fact have compliance timeframes beginning in 2024 and extending into 2030 based on meeting the required percentage of non-emitting controllers within the deadlines set out under New Mexico's rules. These will likely bump up against any final NSPS Subpart OOOO(c) compliance timeframes.

Thus, given this complex regulatory arena, BLM's requirement to add low bleed equipment within one year of the effective date of the rule seems short-sighted and with limited benefit. EPA has already taken steps to require low bleed controllers since 2012, and EPA and certain states will be taking the same or even more stringent actions in the near future. In fact, it is unreasonable to require operators to replace their existing continuous controllers with low bleed gas powered pneumatic equipment under the proposed BLM rule when operators will be subject to varying definitions of affected facilities, equipment requirements that are based on zero-emissions standards (i.e., pumps not driven by natural gas), and varying compliance deadlines. BLM cannot dismiss these issues just by vaguely averring that "the BLM will maintain an awareness of developments in EPA's regulations and will make adjustments to the final rule as appropriate."[17]

As such, no further layering of conflicting and duplicative regulatory provisions should be added by BLM in the context of federal and Indian leases and agreements. We therefore ask BLM to remove this section in its entirety.

15.2 Section 3179.201(b) – AXPC recommends changing the compliance deadline of one year to match EPA's current and upcoming applicable NSPS requirements.

Notwithstanding our overall recommendation to remove entire Section 3179.201, we recommend that if BLM moves forward with its proposed language, the compliance deadline of one year should be extended to at least 4 years to allow coordination with the upcoming NSPS Subparts OOOO(b) and OOOO(c) rule implementation to take effect. We further recommend that BLM limit application of this provision to wells and facilities that are not currently already subject to similar requirements imposed by EPA and State agencies.

[15] Id.
[16] Venting and Flaring: State and EPA Regulations, August 2021.
[17] Proposed Rule at 73,599.

15.3 Section 3179.201 – Recommended Revisions

§ 3179.201 -- Pneumatic controllers and pneumatic diaphragm pumps. Pneumatic controllers and

(a) Where a lease, unit PA, or CA is producing at least 120 Mcf of gas or 20 barrels of oil per month, the operator may not use a natural-gas-activated pneumatic controller or pneumatic diaphragm pump with a bleed rate that exceeds 6 scf per hour.

(b) Operators must comply with paragraph (a) of this section beginning on [DATE 4 YEARS ~~1 YEAR~~ AFTER THE EFFECTIVE DATE OF THE FINAL RULE]. This date may be extended at the discretion of the BLM.

16. Section 3179.203 – AXPC provides several technical comments and revisions related to BLM's proposal for oil storage vessels and vapor recovery units.

We appreciate BLM's efforts to significantly streamline this section from the 2016 Rule in line with its statutory authority; and to provide appropriate flexibility to operators in making determinations of whether vapor recovery units ("VRUs") should be added to oil storage tanks based on technical and economic feasibility. We continue to recommend no further onerous or unnecessary provisions to be added to this section.

16.1 Section 3179.203 – AXPC recommends changing the term "oil storage vessels" to "oil storage tanks."

We recommend utilizing the term "oil storage tanks" because the term "tank" is consistent with the longstanding term under NTL-4A as well as industry practice in the upstream context. By contrast, BLM's proposed term "oil storage vessels" is derived from EPA's regulations, is overly broad, and is not appropriately targeted for BLM's application. For example, the storage vessel definition includes produced water tanks which should not be covered as those are not oil storage tanks and would require unnecessary sampling of all such tanks.

We also recommend consistency changes whereby, in all places, the correct reference is to "oil storage tanks." Our recommended changes are provided below.

16.2 Section 3179.203(a) – AXPC recommends revisions to reflect reasonable and prudent operator standard for thief hatches to not be left negligently unattended, and for noncompliance to be based on finding of negligence.

This proposed requirement reflects one of many industry practices under its reasonable and prudent operator standards that industry follows diligently. Yet, the Proposed Rule would attach a higher "immediate assessment of $1,000" on the operator if a thief hatch is left open and unattended, potentially reflecting a concern with air emissions which is separately regulated and enforced under the Clean Air Act regulations within other federal and state agencies' exclusive jurisdiction.

We also understand that under 43 C.F.R. Section 3163.1(b), "certain instances of noncompliance are violations of such a serious nature as to warrant the imposition of immediate assessments

upon discovery"; however, our careful review fails to find an adequate basis to warrant such an assessment here within the context of BLM's statutory authority.

We also ask that any alleged noncompliance should be based on a finding of operator negligence and follow the BLM regulatory processes for findings of noncompliance and remedies under 43 CFR Subpart – 3163, Noncompliance, Assessments and Penalties.

In light of our comments, we provide revised language below for BLM's consideration.

16.3 Section 3179.203(b) – AXPC supports flexibility provided for additional vapor recovery unit requirements with a process provided for demonstrating technical and economic feasibility; however, additional language clarifying this flexibility could be helpful.

In response to comments relating to economic feasibility, we do not believe that any additional definition is needed for specifying economic or technical infeasibility. This demonstration should be left within BLM's discretion applying their expertise and judgement and allowing for operators to submit reasonable technical and economic data appropriate to their operations to demonstrate economic or technical infeasibility.

And given that VRUs are required with the option for an operator to make a demonstration of technical or economic infeasibility, we believe that the proposed one-year compliance deadline is reasonable.

Lastly, and consistent with our legal and general comments, BLM's proper consideration of technical and economic feasibility in this section should extend throughout the Proposed Rule, particularly in BLM's approach to delineating unavoidably lost and avoidably lost gas. BLM's total refusal to consider economic and other circumstances in portions of its rule is internally inconsistent and arbitrary.

16.4 Section 3179.203(c) – Recommend removal of unreasonable requirement for annual compositional sampling to demonstrate infeasibility of a VRU.

The requirement in proposed Section 3179.203 for oil tanks without VRUs to submit an annual compositional analysis of production flowing to the storage vessel is unreasonable and unnecessary for several reasons. While tank vapor composition is an important consideration in speciating tank emissions, our technical experience indicates that it is not needed to determine the amount of gas being flashed at the tank(s) or to determine the feasibility of installing a VRU on an oil storage tank. Estimates of the gas vapor volumes can easily be determined by knowing the oil gravity and the gas/oil ratio (GOR) of an oil well.

We also direct BLM's attention to existing computer programs and federal and state approved calculation methodologies for determining gas vapor volumes at the tanks that utilize oil gravity or GOR. Furthermore, our industry experience indicates that the most important factors in an economic decision to install a VRU are the average gas rates, tanks sealing, access to reliable electricity, basin-level gas prices, and access to a low-pressure pipeline.

As such, we ask that BLM remove its proposed unnecessary compositional sampling for storage tanks without VRUs under Section 3179.203(c). As it stands, BLM has the discretionary authority to ask an operator to demonstrate why a VRU is not feasible. That process allows for alternative methods other than just compositional sampling to be considered in demonstrating whether or not a VRU is technically or economically infeasible.

There is no reasonable basis for additional annual compositional sampling requirements to demonstrate infeasibility of a VRU. We thus recommend deleting language as applicable to VRUs but retaining the remainder of the proposed provisions for compositional analysis requirements as may be required in other reasonable contexts separately and outside of the VRU context. Recommended revised language is provided below.

In the alternative, if compositional sampling were to be required, it should only be required per reservoir. Through guidance, certain states such as Colorado also offer case-by-case approval processes for alternative site-specific methods for estimating emissions from storage tanks.[18] Guidance such as this would be helpful at the federal level.

16.5 Section 3179.203(c) – The RIA does not account for burdensome costs associated with the compositional sampling requirements where a storage tank is not equipped with a VRU.

Based on our extensive industry experience, our review of BLM's cost estimates of $500 per annual sampling to acquire a compositional (c10+) analysis indicates that those costs are underestimated because a single c10+ analysis often times has a real world cost of $1500-3000 with labor and shipping. Also, these analyses are time intensive and usually take a minimum of a month to complete. BLM must account for those burdens. Yet, our assessment finds that the RIA has failed to adequately account for all costs associated with the annual compositional requirement.

16.6 Section 3179.203 – Recommended Revisions

§ 3179.203 Oil storage ~~vessels~~ tanks

(a) The operator will follow the reasonable and prudent operator standard to ensure that the thief hatch on an oil storage tank ~~vessel~~ may be open only to the extent necessary to conduct maintenance, production and measurement operations. Upon discovery of a thief hatch that has been negligently left open ~~and unattended~~, the BLM may initiate remedies for non-compliance, as appropriate, under 43 CFR 3163. ~~impose an immediate assessment of $1,000 on the operator~~.

(b) Beginning on [DATE 1 YEAR AFTER THE EFFECTIVE DATE OF THE FINAL RULE], all oil storage tanks ~~vessels~~ must be equipped with a vaper recovery unit, vapor-recovery system or other mechanism that avoids the intentional loss of natural gas from

[18] For example, Colorado's guidance under Colorado Air Pollution Control Division, PS Memo 14-03 at 12, 16, offers a process for approving alternative methods including site-specific emission factors for certain storage tanks to estimate emissions. (To provide a comprehensive survey, guidance such as this should be included in BLM's "Venting and Flaring: State and EPA Regulations" document that is part of this docket).

the vessel, unless the operator determines that installing a ~~equipping the oil storage vessel with~~ a vapor recovery unit, vapor-recovery system or other appropriate mechanism is technically infeasible or economically infeasible.
(c) Notwithstanding Section 3179.203(b), where the BLM may reasonably require additional compositional analysis of production flowing to the storage tank ~~vessel~~, the following minimum requirements apply:~~. has not equipped a storage vessel with a vapor recovery system or other appropriate mechanism under paragraph (b) of this section, the operator, using a Sundry Notice, must submit an annual compositional analysis of production flowing to the storage vessel~~.
(1) The compositional analysis must be based on representative ~~pressurized~~ samples, which can be taken downstream of the last pressurized vessel and upstream of the last pressure reduction (*e.g.,* a valve) prior to the oil flowing into the oil storage tank ~~vessel,~~ or from other oil storage tanks at well sites within the same township and reservoir where the well is located. Representative compositional analysis upstream of the last pressure reduction can be utilized with use of computational modelling software used to model anticipated volumes of gas lost from the storage tanks. (2) The compositional analysis must show the expected emissions from the oil storage tank ~~vessel~~ 60 degrees Fahrenheit and 14.73 psia.
(3) The following sampling requirements apply:
(i) Samples must be collected from a sample probe located downstream of the last pressurized vessel at least 2 feet below the gas-liquid interface of the vessel on the oil discharge, and upstream of the last pressure reduction prior to oil flowing into the oil storage tank ~~vessel~~.
(ii) Samples must be collected in constant pressure (CP) cylinders.
(iii) Samples must be collected at a rate between 100 ml/minute and 60 ml/ minute.
(iv) Samples must be collected within 30 minutes of the well cycle completion for intermittent flow.
(v) Samples must indicate the pressure and temperature at the sample probe at the time of sampling. The equipment used to measure pressure and temperature must be certified to NIST within ±0.5 psi and ±1 degree Fahrenheit.
(4) The following analysis requirements apply:
(i) Flash-gas compositional analysis must be consistent with GPA 2286 (incorporated by reference, see
§ 3179.11).
(ii) Dead oil composition analysis must be consistent with GPA 2186 (incorporated by reference, see
§ 3179.11).
(e) Where practical and safe, gas released from an oil storage tank ~~vessel~~ must be flared rather than vented. An operator may commingle vapors from multiple oil storage tanks ~~vessels~~ to a single flare without prior approval from the BLM.

17. Section 3179.301 – AXPC has several technical comments and recommendations related to BLM's proposal for LDAR.

We appreciate the Proposed Rule's flexibility for operators in providing an LDAR program without additional prescriptive and unnecessary conditions similar to the 2016 rule. To avoid

unnecessary duplication, we ask that where operators have an LDAR program in place as required and approved by EPA or states, those elements of an LDAR program should be sufficient to meet LDAR program requirements of BLM without any additional modifications or conditions added.

We are unclear on (1) why the requirement is stated on a lease basis when it is more typically implemented based on all the wells within a particular basin/field under a more comprehensive LDAR plan/schedule, (2) BLM's proposed process whereby the operator must propose and maintain a LDAR program designed to prevent the unreasonable and undue waste of federal or Indian gas, (3) the reasons for which BLM deems the program inadequate, and (4) what additional measures BLM may prescribe to address those inadequacies. It is our position that these additional provisions in this section are unnecessary given BLM's statutory authorities regarding the reasonable and prudent operator standard that must be met to prevent undue waste. An LDAR program that meets this reasonable and prudent operator standard should be construed as being sufficient. And as discussed above, BLM should entirely remove the unnecessary and unworkable term "unreasonable and undue waste" from its Proposed Rule.

17.1 Section 3179.301(b) – AXPC supports BLM acknowledgement/acceptance of LDAR programs with an equivalent or more stringent EPA or state program without additional prescriptive terms.

Recognizing LDAR programs in place under EPA and certain state requirements as well as voluntarily, while understanding BLM's separate statutory authority to prevent undue waste, we are supportive of submitting a one-time Sundry Notice describing an operator's LDAR program within 6 months of the effective date of any final rule, and subject to annual inspections as noted.

With operators having LDAR programs in place, this requirement is not expected to be onerous. However, we underscore that the short timeframe is only possible if, where applicable, BLM allows operators to continue relying on ongoing LDAR programs in compliance with EPA or state programs and approving them without any delay.

17.2 Section 3179.301 – Recommended Revisions

§ 3179.301 Leak detection and repair program.

(a) Pursuant to paragraph (b) of this section, the operator must maintain a leak detection and repair (LDAR) program designed to prevent the unreasonable and undue waste of Federal or Indian gas for any wells which LDAR is not conducted at least annually pursuant to other federal, state, or Tribal regulation. The LDAR program may cover all of the operator's wells within a lease, CA, unit or all of the operator's wells within the jurisdiction of a single BLM Field Office, and the plan must provide for regular inspections of all oil and gas production, processing, treatment, storage, and measurement equipment ~~on the lease site~~ within the area covered by the plan.

(b) The operator of a Federal or Indian lease must submit a Sundry Notice to the BLM describing the operator's LDAR program plan ~~for the lease site~~, including the frequency of inspections and any instruments to be used for leak detection. The BLM will review the operator's LDAR program plan and notify the operator if the BLM deems the program to be inadequate. The notification will explain the basis for the BLM's determination, identify the plan's inadequacies, describe any additional measures that

could address the inadequacies, and provide a reasonable time frame in which the operator must submit a revised LDAR program to the BLM for review. For leases in effect on [EFFECTIVE DATE OF THE FINAL RULE], the operator must submit the Sundry Notice describing the operator's LDAR program plan no later than [6 MONTHS AFTER THE EFFECTIVE DATE OF THE FINAL RULE]. For leases issued after [EFFECTIVE DATE OF THE FINAL RULE], the operator must submit the Sundry Notice describing the operator's LDAR program plan within six months of the lease's issuance.

(c) LDAR inspections must occur on an annual basis, if not more frequently. For leases in effect on [EFFECTIVE DATE OF THE FINAL RULE] and on which operations have commenced, the operator must conduct an initial inspection within 1 year of [EFFECTIVE DATE OF THE FINAL RULE]. For other leases, the operator must conduct an initial inspection within one year of the commencement of operations.

18. Section 3179.303(b) – AXPC recommends deleting this section revising Section 3179.303(a) language as well as adding a new Section 3179.303(d) allowing operators to maintain the annual report on-site available for inspection to streamline and avoid unnecessary duplication with EPA and state reporting requirements.

Given operators' overlapping requirements for annual LDAR submittals to EPA being subject to different dates, we ask that the March 31 yearly annual reporting requirement be removed. Instead, to improve efficiencies where there are overlapping requirements, we believe that it is more reasonable to allow operators to maintain an annual summary report onsite and make such reports available to BLM upon request.

We propose a new subsection Section 3179.303(d) to clearly provide that any annual report that is prepared by the operator specifically to meet the annual LDAR reporting requirements of EPA, or an equivalent state program is sufficient to meet BLM's requirements under proposed Section 3179.303(a).

18.1 Section 3179.303 – Recommended Revisions

§ 3179.303 Leak detection inspection recordkeeping and reporting

(a) The operator must maintain the following records for the period required under § 3162.4–1(d) of this title and make them available to BLM upon request:

(1) For each inspection required under § 3179.301 of this subpart, documentation of:

(i) The date of the inspection; and

(ii) The site where the inspection was conducted;

(2) The monitoring method(s) used to determine the presence of leaks;

(3) A list of leak components on which leaks were found;

(4) The date each leak was repaired; and

(5) The date and result of the follow- up inspection(s) required under § 3179.302(c) of this subpart.

(6) An annual summary report on the previous year's inspection activities which must include:

~~(b) By March 31 of each calendar year, the operator must provide to the BLM an annual summary report on the previous year's inspection activities that includes:~~
~~(1)~~ (i) The number of sites inspected;
~~(2)~~ (ii) The total number of leaks identified, categorized by the type of component;
~~(3)~~ (iii) The total number of leaks repaired;
~~(4)~~ (iv) The total number of leaks that were not repaired as of December 31 of the previous calendar year due to good cause and an estimated date of repair for each leak.
(c) Audio/visual/olfactory (AVO) checks are not required to be documented unless they find a leak requiring repair.
(d) Any annual report that is prepared by the operator specifically to meet the annual LDAR reporting requirements of the EPA, or an equivalent state or Tribal program, is sufficient to meet the BLM's requirements under Section 3179.303.

19. Section 3179.401 -- AXPC supports State or Tribal variance requests and Operator variance requests.

BLM revives the state and Tribal variances from the 2016 Rule which we generally support as an avenue for clarifying and improving administrative and regulatory inefficiencies between BLM processes and similar state and Tribal programs, and for minimizing overlaps with other federal, state, or Tribal regulations.

However, we have the same concerns that we expressed with regard to the functionally same provision in the proposed rule that preceded the 2016 Rule. The MLA prohibits BLM from promulgating regulations "in conflict with the laws of the State in which the leased property is situated." 30 U.S.C. § 187. BLM again has added the provisions for a state or Tribe to request a variance from the regulations under § 3179.401 in an effort to avoid such a conflict; however, the proposed variance process provides little comfort because it will be difficult, if not impossible, to satisfy or implement. The process would require that the state or Tribal rule must meet or exceed BLM's regulation, leave the approval process to the discretion of BLM State Director with no opportunity to appeal a denial to IBLA, and allow for revocation of the approval at any time. It also is unclear how much time and resources the already burdened states will be required to put into an effort for a variance request. Many state agencies do not have the staff or finances for such a request, leaving the operators burdened with duplicative requirements from multiple agencies and overlapping enforcement.

In its decision vacating the 2016 Rule, the District of Wyoming expressed concern that "the Rule has potential conflict and inconsistency with the implementation and enforcement provisions of the CAA," and that BLM's variance provision "disregards the States' 'wide discretion in formulating [their] [implementation plan[s]' under the CAA." *Wyoming,* 493 F. Supp. 3d at 1066. The same concerns apply to the Proposed Rule, and thus BLM should modify any final rule accordingly.

BLM also should allow operators to obtain an individual variance from the requirements of these regulations. There is no reason why BLM should deny operators an opportunity to demonstrate that a variance from a particular provision is appropriate. This is especially true given that portions of the Proposed Rule lack clear justification, fail to adhere to the limits of BLM's

authority, or fail to consider the wide variations in operational and economic circumstances among individual operations. Accordingly, BLM should include a provision for an individual variance in any final rule.

19.1 Section 3179.401 -- The state or Tribal variance process should not be onerous.

BLM must ensure that state and Tribal variance requests are not unnecessarily burdened by overly onerous and unreasonable acceptance processes. BLM also should ensure consistency among BLM State Office decisions on variance requests so that operators are not prejudiced by one BLM State Office being more limiting as to the variances it will accept. Additionally, we recommend that BLM put a time limit on its response to variance requests of no longer than 30 days.

19.2 Section 3179.401(b) -- Recommend revision to provide for clear statutory-based standard for BLM's approval process.

BLM's language in Section 3179.401 requiring a determination that the state or Tribal regulation or rule would perform "at least equally well" is an unclear, subjective standard. A preferable standard would be that the state or Tribal regulation "would be consistent with the terms of the affected Federal or Indian Leases and BLM's statutory authorities." This standard would more properly accommodate the potentially unique provisions of some Tribal oil and gas leases.

19.3 Section 3179.401 – AXPC supports a process for MOUs in addition to variances.

BLM seeks comment on the use of MOUs in lieu of state or Tribal variances. Proposed Rule at 73,609. API believes that MOUs can serve as a complementary tool, but that BLM should preserve all operations to avoid duplicative requirements and associated burdens. Clear examples where MOUs would be helpful include but are not limited to state programs which have submittal and reporting requirements for waste prevention programs including management plans for waste minimization and LDAR.

As discussed in the preamble, an MOU allows the opportunity for alignment on data collection and submittal requirements where there is a potential for regulatory duplication. For example, agreeing on processes and terms relating to accepting a state's gas management plan in lieu of BLM's waste minimization plan would avoid duplicative efforts and bring greater efficiencies. While a state program may not include all the exact information submittals required by BLM, the state program must still be considered holistically as meeting the intent of preventing undue waste within the context of BLM's overall statutory authorities.

19.4 Section 3179.401(d) – AXPC supports a more robust process for BLM's process for rescinding or modifying a variance.

As this proposed section is written, BLM could simply rescind or modify a previously approved variance and BLM's only obligation is to provide notice after the fact. Allowing BLM to unilaterally rescind a variance or modify any condition of approval without coordination with or

advance notice to its state or Tribal partners would create a climate of regulatory uncertainty and defeat due process. Any final rule should provide that the BLM State Director must provide notice and an opportunity to receive comment from the state or Tribal partner, and the regulated community, before rescinding a variance approval. If operators have made financial investments in their operations based on an approved variance, an arbitrary rescission of the variance would be particularly unreasonable, burdensome, and unfair.

19.5 Section 3179.401 – Recommended Revisions

§ 3179.401 ~~State or Tribal r~~ Requests for variances from the requirements of this subpart.

(a)(1) At the request of a State (for Federal land) or a Tribe (for Indian lands), the BLM State Director may grant a variance~~,~~ from any provision(s) of this subpart. ~~that~~ The variance would apply to all Federal leases, units, or communitized areas within a State or to all Tribal leases, IMDAs, units, or communitized areas within the Tribe's lands, or to specific fields or basins within the State or Tribe's lands, if the BLM State Director finds that the variance would meet the criteria in paragraph (b) of this section.

(2) A State or Tribal variance request must:

(i) Identify the provision(s) of this subpart from which the State or Tribe is requesting the variance;

(ii) Identify the State, local, or Tribal regulation(s) or rule(s) that would be applied in place of the provision(s) of this subpart;

(iii) Explain why the variance is needed; and

(iv) Demonstrate how the State, local, or Tribal regulation(s) or rule(s) would ~~perform at least equally well to reduce~~ prevent undue waste of oil and gas, ~~reduce environmental impacts from venting and/or flaring of gas,~~ assure appropriate royalty payments to the United States or to the beneficial Indian owners, and ensure the safe and responsible production of oil and gas ~~compared to the particularly regulatory provision(s) from which the State or Tribe is requesting the variance~~ consistent with the lessee's obligations under its lease and applicable statutory requirements.

(b) The BLM State Director, after considering all relevant factors, may approve the request for a variance, or approve it with one or more conditions, ~~only~~ if the BLM State Director determines that the State, local or Tribal regulation(s) or rule(s) would ~~perform at least equally well in terms of reducing~~ avoid undue waste of oil and gas, ~~reduce environmental impacts from venting and/or flaring of gas,~~ assure~~ing~~ appropriate royalty payments to the United States or to the beneficial Indian owners, and ensure~~ing~~ the safe and responsible production of oil and gas, ~~compared to the particular regulatory provision(s) from which the State or Tribe is requesting the variance, and would be~~ consistent with the terms of the affected Federal or Indian leases and applicable statutes. The BLM's decision to grant or deny the variance will be in writing and is discretionary. The decision on a variance request is not subject to administrative appeal under 43 C.F.R. part 4.

(c) An operator of a Federal or Indian oil and gas lease, unit, or communitization agreement may make a written request to the BLM State Director for an individual variance from the requirements of this subpart. A request for an individual variance must identify the regulatory

provision of this part for which the variance is being requested, explain the reason the variance is needed, and demonstrate how the operator will satisfy the objectives of the regulation for which the variance is being requested. After considering all relevant factors, the BLM State Director may approve the variance, or approve it with one or more conditions, if the State Director determines that the proposed alternative meets the purposes of the regulation for which the variance is being requested. The decision whether to grant or deny the variance request must be in writing and is discretionary. The decision on a variance request is not subject to administrative appeal under 43 C.F.R. part 4.

(~~c~~d) A variance from any particular regulatory requirement of this subpart does not constitute a variance from the provisions of any other regulations, laws, or orders.

(~~d~~e) The BLM State Director reserves the right to rescind a variance or modify any condition of approval, in which case the BLM State Director will provide notice and an opportunity to comment on the proposed rescission to the affected State or Tribe and to the affected operators for a variance authorized under subsections (a) and (b), and to the operator for an individual variance granted under subsection (c). The State Director must state in writing the reasons for rescinding the variance.

(~~e~~f) If the BLM approves a variance under this section, the State or Tribe that requested the variance must promptly notify the BLM in writing ~~and in a timely manner~~ of any substantive amendments, revisions, or other changes to the State, local or Tribal regulation(s) or rule(s) ~~to be applied under~~ providing the basis for the variance.

(~~f~~g) If the BLM approves a variance under ~~this section~~ subsections (a) and (b), the State, local or Tribal regulation(s) or rule(s) to be applied under the variance, including any changes to the regulation(s) or rule(s) described in paragraph (~~e~~f) of this section, would apply, and would be enforced by the appropriate Federal, State, Tribal, or local authority.~~may be enforced by the BLM as if the regulation(s) or rule(s) were provided for in this subpart~~. The State's, locality's, or Tribe's~~'~~ own authority to enforce its regulation(s) or rule(s) to be applied under the variance is not to be affected by the BLM's approval of a variance.