U.S. Department of the Interior
Director, Bureau of Land Management
1849 C St. NW, Room 5646
Washington, DC 20240
Attention: 1004–AE79

Submitted via reginfo.gov

Subject: Comments on Bureau of Land Management Proposed Rule on Waste Prevention, Production Subject to Royalties, and Resource Conservation, 87 Fed. Reg. 73,588 (Nov. 30, 2022), RIN 1004-AE79

Dear Sir or Madam:

The American Petroleum Institute ("API"), American Exploration & Production Council ("AXPC"), Alaska Oil and Gas Association ("AOGA"), Montana Petroleum Association ("MPA"), New Mexico Oil & Gas Association ("NMOGA"), North Dakota Petroleum Council ("NDPC"), and Petroleum Alliance of Oklahoma (collectively, the "Associations") appreciate the opportunity to provide comments on the above-referenced Bureau of Land Management ("BLM") proposed rule ("Proposed Rule"). We respectfully submit the below comments on the Proposed Rule on behalf of our members, many of whom hold and operate existing federal and Indian leases and will be directly impacted by the Proposed Rule.

The Associations support BLM waste prevention regulations that are consistent with BLM's authority. Our industry is taking action to reduce emissions from our operations, and as a result, methane emissions relative to production fell 60% from 2011 to 2020. Industry-led initiatives like The Environmental Partnership are helping to continue that progress with the goal of further reducing methane emissions in every major U.S. basin. We look forward to working with BLM in support of a final rule that is cost-effective and furthers the progress we continue to make on reducing emissions.

To aid in review of these comments, we provide an Executive Summary beginning on page vi and a Table of Contents beginning on page xiii, preceding our more detailed comments.

API is a national trade association representing nearly 600 member companies that operate throughout the U.S. onshore and on the Outer Continental Shelf, and includes large integrated

companies, as well as exploration and production, refining, marketing, pipeline, and marine businesses, and service and supply firms. API members provide most of the nation's energy and are committed to continued compliance with federal and Indian mineral leasing statutes, implementing regulations, and lease terms. For many years, API has worked collaboratively with BLM and other Department of the Interior agencies, the Environmental Protection Agency, states, Tribes, and others in support of the continued safety of industry workers and protection of the environment. API has developed more than 800 industry standards to enhance operational and environmental safety, efficiency, and sustainability.

AXPC is a national trade association representing 32 of the largest independent oil and natural gas exploration and production companies in the United States. AXPC companies are among leaders across the world in the cleanest and safest onshore production of oil and natural gas, while supporting millions of Americans in high-paying jobs and investing a wealth of resources in our communities. Dedicated to safety, science, and technological advancement, our members strive to deliver affordable, reliable energy 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. It is important that regulatory policy enables us to support continued progress on both fronts through innovation and collaboration.

The Alaska Oil and Gas Association ("AOGA") is a professional trade association whose mission is to foster the long-term viability of the oil and gas industry for the benefit of all Alaskans. AOGA represents the majority of companies that are exploring for, developing, producing, refining, or marketing oil and gas on the North Slope, in the Cook Inlet, and in the offshore areas of Alaska.

The Montana Petroleum Association ("MPA") is a Montana-based trade association representing over 150 member-companies involved in all aspects of the oil and natural gas industry. MPA's members include producers, refiners, suppliers, pipeline operators, transporters, and mineral owners as well as service and supply companies that support all segments of the industry and employ a substantial number of hard-working Montanans.

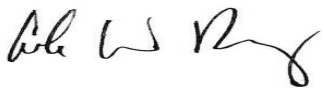
The New Mexico Oil & Gas Association ("NMOGA") endorses and supports these comments regarding the Proposed Rule. These comments address many technical points that will impact operators regardless of where their operations are located, and we appreciate and support these comments in support of achievable, practical regulations for our industry. As a large portion of the lands where oil and gas are developed in New Mexico are owned by the United States, any regulations that impact federal lands will have an outsized impact on the citizens of our state. These comments will be supplemented by separate comments from NMOGA that are more targeted for the industry in New Mexico since the state agencies who regulate our industry in the state have very recently passed rules that overlap with, and in some cases exceed, the rules that the BLM proposes now.

Established in 1952, the North Dakota Petroleum Council ("NDPC") is a trade association that represents more than 600 companies involved in all aspects of the oil and gas industry, including oil and gas production, refining, pipelines, transportation, mineral leasing, consulting, legal work, and oil field service activities in North Dakota, South Dakota, and the Rocky Mountain Region.

The Petroleum Alliance of Oklahoma represents more than 1,400 individuals and member companies and their tens of thousands of employees in the upstream, midstream, and downstream sectors and ventures ranging from small, family-owned businesses to large, publicly traded corporations. Its members produce, transport, process and refine the bulk of Oklahoma's crude oil and natural gas. The Proposed Rule will impact its members as they develop federal and Indian leases in Oklahoma and in many other states.

Thank you for the opportunity to provide these comments. Our members remain committed to working with BLM on the subject matter of the Proposed Rule. Please do not hesitate to contact me if you have any questions.

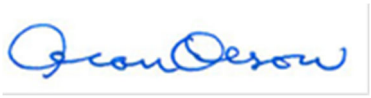
Sincerely,



Cole Ramsey
Vice President of Upstream Policy
American Petroleum Institute
ramseyc@api.org

Wendy Kirchoff
American Exploration & Production Council
Wendy.Kirchoff@axpc.org

Tamara S. Maddox, J.D.
Regulatory & Legal Affairs Manager
Alaska Oil and Gas Association
maddox@aoga.org



Alan Olson
Executive Director
Montana Petroleum Association
alan@montanapetroleumassociation.gov

Doug Ackerman
President and CEO
New Mexico Oil and Gas Association
doug@nmoga.org

Ron Ness
President
North Dakota Petroleum Council
rness@ndoil.org

Angie Burckhalter
Sr. V.P. of Regulatory & Environmental Affairs
The Petroleum Alliance of Oklahoma
angie@okpetro.com

API, AXPC, AOGA, MPA, NMOGA, NDPC, and Petroleum Alliance of Oklahoma Comments on Bureau of Land Management Proposed Rule on Waste Prevention, Production Subject to Royalties, and Resource Conservation

January 30, 2023

Docket ID RIN 1004–AE79

Executive Summary

On November 30, 2022, BLM proposed regulations ("Proposed Rule") to replace the regulations contained in the 1979 Notice to Lessees and Operators of Onshore Federal and Indian Oil and Gas Leases, Royalty or Compensation for Oil and Gas Lost ("NTL-4A"), and in certain provisions in Title 43 of the Code of Federal Regulations, relating to prevention of waste of oil and gas.

The American Petroleum Institute ("API"), American Exploration & Production Council ("AXPC"), Alaska Oil and Gas Association ("AOGA"), Montana Petroleum Association ("MPA"), New Mexico Oil & Gas Association ("NMOGA"), North Dakota Petroleum Council ("NDPC"), and Petroleum Alliance of Oklahoma (collectively, the "Associations") commend BLM's management of our nation's federal and Indian lands, including for safe and responsible domestic energy development. As partners in this effort, our industry is committed to taking reasonable and prudent steps to avoid undue waste of oil or gas, including from federal and Indian lands. In fact, companies are incentivized to capture as much natural gas as economically feasible to sell on the market, which then also benefits the federal government and Indian mineral owners who receive royalty payments on produced gas.

As an industry, we remain committed to advancing the development, testing, and utilization of new technologies and operational practices to better understand, detect, and further mitigate emissions and waste of natural gas during oil and gas exploration and production activities. This is evident from domestic energy producers' extensive efforts to add leak detection and repair programs ("LDAR"), apply new technologies, update pneumatic controllers and storage tanks, and reduce emissions associated with venting and flaring—both voluntarily and under federal and state regulations. This is a dynamic arena—there are ongoing efforts that involve short-term and long-term planning and implementation of improvements and upgrades at federal and state levels, as well as within day-to-day oil and gas operations.

Our overall comments regarding the proposed rules are summarized below. We subsequently provide a more comprehensive discussion of our comments including general technical comments, detailed section-by-section comments with recommended revisions to BLM's proposed regulatory text, and legal framework comments.[1]

Our comments on this rule were developed thoughtfully, with the goal of helping BLM achieve a final rule that is legally sound, provides regulatory certainty, and does not deter continued

[1] As background and to the extent also pertinent to the Proposed Rule, we also attach comments submitted by API and other stakeholders on prior BLM rulemaking efforts pertaining to this same subject matter. See Attachments 4 and 5.

investment and innovation in the federal and Indian onshore oil and natural gas program. A strong onshore program is essential for ensuring greater energy security for the U.S., and our ability to help our allies globally. As BLM notes in its preamble, BLM's onshore oil and gas management program is a major contributor to the nation's oil and gas production. Just looking at Fiscal Year 2021, operators produced 473 million barrels of oil and 3.65 trillion cubic feet of natural gas from onshore federal and Indian oil and gas leases, which translated to oil and gas generating more than $4.2 billion in royalties for the federal government and the Indian mineral owners who receive the royalty payments.[2]

Overall, we support elements of BLM's streamlined approach, including but not limited to: omitting certain problematic provisions of BLM's 2016 Rule; limiting certain requirements to federal and Indian lands; and providing increased flexibility with leak detection and repair ("LDAR") and oil storage tank provisions. For example, we support BLM's decision to remove the requirement that operators capture associated gas they produce from oil wells based on certain gas capture percentage targets. We agree with BLM that such requirements are inherently difficult for operators to implement and BLM to enforce (due to the relative complexity of the calculations), and are not necessarily more effective at controlling waste or ensuring appropriate royalty payments. We also support limiting certain requirements to operations on only federal and Indian lands—requiring fewer prescriptive terms as compared to the 2016 Rule, and recognizing the need for allowing flexibility to operators in the LDAR and oil storage tanks provisions. Consistent with these improvements, and as further discussed below, we recommend that BLM maintain flexibility in its approach to unavoidably lost gas in diverse operational circumstances and limit application of its rule's requirements to federal and Indian mineral interests.

Certain areas of the Proposed Rule remain of concern from technical, practical, and legal perspectives. To address these, we appreciate the opportunity to submit comments for BLM's consideration. For certain sections, it is our position that BLM has exceeded its legal authority to prevent waste and secure royalties on production. These include provisions where the Proposed Rule appears to be imposing arbitrary fixed time and volume limits on "unavoidably lost" royalty-free gas, whereby certain unavoidably lost gas becomes royalty-bearing when certain limits are exceeded even though it remains "unavoidably lost" gas. As a practical matter, we find that the Proposed Rule also unnecessarily duplicates efforts being undertaken by EPA and states to reduce methane emissions from upstream oil and gas operations, including those located on federal and Indian lands. This duplication will create regulatory uncertainty and burdens for operators with additional requirements and varying compliance timeframes, especially related to requirements for controlling emissions from leaks, pneumatic equipment, and oil storage tanks with little to no reduction in actual waste. Our particular concerns are as follows:

[2] Proposed Rule at 73,590.

- The Proposed Rule mandates pre-production waste minimization plan ("WMP") information that is unavailable, unclear, unnecessary, and unactionable, and creates regulatory uncertainty through added provisions relating to processes for applications for permits to drill ("APD"s). Certain states already require gas management plans and members are not entirely opposed to the concept of a WMP being added as an additional submittal to an APD. However, we are concerned with the vague condition that allows BLM to deny an APD if an operator fails to submit a "complete and adequate" WMP. Given the open-ended submittal requirements, the vague "complete and adequate" standard to which operators would be held could delay an operator's APD for any number of reasons without due process being afforded to the operator. Many of the submittal requirements are also inadequately justified in the Proposed Rule. They require proprietary information from midstream pipeline companies that is not available to operators of federal and Indian leases and agreements, and extraneous information that is untethered to BLM's overall purpose to prevent undue waste. The Proposed Rule also includes express discretionary provisions authorizing BLM to delay or deny an APD based on failing to meet those WMP requirements. At a minimum, BLM does not have the authority to delay or deny APDs involving private or state minerals on that basis.

  Recommendation: We provide specific recommended language for BLM's consideration that removes the ambiguous "complete and adequate" condition and thereby provides greater certainty on WMP requirements, and that removes certain onerous submittal requirements, and we also suggest deleting the entirely new Section 3162.3-1(k).

- The Proposed Rule would impose royalty on gas that in fact is "unavoidably lost." The Proposed Rule includes a list of 14 operations and associated time and volume limits for deeming gas unavoidably lost that should be expanded and provide an opportunity for operators to submit case-specific requests. BLM should add to and clarify its "operations or sources" resulting in "unavoidably lost" gas in Section 3179.4(b). As for BLM's prescribed time and volume limits for royalty-free flaring, the most problematic are for wells connected to pipelines (no more than 1,050 Mcf of royalty-free flaring per month per lease, unit, or communitization agreement, and no more than 4,000 Mcf of flaring per month for three consecutive months or risk BLM curtailment or shut-in orders) under Sections 3179.4(b)(12) and 3179.8, and well completions (no more than 10,000 Mcf of royalty-free flaring) under Sections 3179.4(b)(2) and 3179.102. These limits are arbitrary and unreasonable. The Mineral Leasing Act, NTL-4A, the courts, and even the Inflation Reduction Act uniformly state that unavoidable losses are royalty-free, but the Proposed Rule unduly limits the volumes of flared gas that are by their definition unavoidably lost. From a practical perspective, BLM's proposed limits are much too low. Thus, as an alternative, we suggest a minimum 24-hour time limit on royalty-free flaring under Section 3179.8 similar to other provisions in the Proposed Rule and under NTL-4A. This 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 additionally flared gas is unavoidably lost. For Section 3179.102, we propose reverting to the applicable volume limits set out in the 2016 Rule.

Recommendation: If BLM elects to retain numeric limits on unavoidably lost gas specifically from wells connected to pipelines, 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, then for no longer than 24 hours per event such flared gas is ''unavoidably lost'' for the purposes of §§ 3179.4(b)(12) and 3179.5. Operators also may demonstrate to BLM that additional flaring due to pipeline capacity constraints, midstream processing failures, or other similar events that prevent produced gas from being transported through the connected pipeline, is not avoidably lost for the purposes of §§ 3179.4(b)(12), 3179.4(c), and 3179.5.

For Section 3179.102, we suggest the following: 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.

- BLM should separately define "avoidably lost" consistently within the MLA context of reasonable and prudent operator and negligent operator standards. The proposed regulatory structure relating to unavoidably lost oil and gas does not include a definition of "avoidably lost" in the context of whether the lessee has not been negligent and has taken prudent steps to avoid waste. In essence - and consistent with our immediately above comment - Section 3174(b)'s list of circumstances for "unavoidably lost" gas should not alone determine in every case what is "unavoidable." Instead, BLM should allow for a case-by-case process for unavoidably lost determinations that do not fall within either the Section 3174(b) list or the recommended separate definition of "avoidably lost." To maintain operational flexibility for operators to respond to circumstances as they occur, BLM correspondingly should have the discretion to consider other situations which can result in unavoidably lost gas but are not listed in the rule.

  Recommendation: Define "avoidably lost" as when (i) the loss of produced oil or gas occurred without BLM's prior authorization, approval, ratification, or acceptance, and (ii) BLM determines that such loss occurred as a result of (A)

negligence on the part of the lessee or operator, (B) the failure of the lessee or operator to take all reasonable measures to prevent or control the loss, (C) the failure of the lessee or operator to comply fully with the applicable lease terms and regulations, appropriate provisions of the approved operating plan, or the prior written orders of BLM, or (D) any combination of the foregoing. See also above clarifying recommendations to Section 3179.4(b).

- The proposed defined term "unreasonable and undue waste" should be removed entirely from the rule. This proposed new term tied to proposed LDAR, APD processing, and oil-well gas flaring requirements is unnecessary and confusing. Moreover, the proposed definition is unclear, is already covered by the reasonable and prudent operator standard, and overall would cause needless confusion and regulatory uncertainty.

  Recommendation: Remove all Proposed Rule references to "unreasonable and undue waste."

- There is a robust set of venting and flaring regulations administered by the U.S. Environmental Protection Agency ("EPA") and states. We ask BLM to rely on this framework rather than unnecessarily creating a new and conflicting set of regulations for operations on federal lands which could result in conflicts, duplication, and unnecessary burdens on agencies and the regulated community. Specifically, we bring BLM's attention to the pneumatic equipment and LDAR proposed requirements.

  Pneumatic Equipment. The oil and gas industry has already taken active steps to control emissions from pneumatic equipment in its operations and is continuing to evaluate and implement new controls as feasible. This includes industry compliance with the New Source Performance Standards ("NSPS") Subpart OOOO rule where EPA adopted rules requiring all pneumatic controllers at certain oil and natural gas facilities constructed, modified, or reconstructed after October 15, 2013, to be low-bleed, in essence eliminating high-bleed pneumatics. 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 EPA's existing and pending regulations, and state rules such as in New Mexico that govern this very set of equipment. Specifically, the EPA's existing and pending rules and New Mexico's rules require eliminating certain existing and new gas-powered pneumatics under varying compliance timelines; and thus BLM's proposal to replace high bleed pneumatics with low bleed within one year of this rule's effective date conflicts with these environmental rules' requirements relating to pneumatic equipment.

  Recommendation: Remove Section 3179.201 entirely.

Leak Detection and Repair. We support the additional flexibility provided by BLM in the proposed LDAR requirements. We recommend some changes to proposed Section 3179.303 to increase efficiency among varying LDAR requirements. EPA and a number of states have separate LDAR requirements including reporting and recordkeeping provisions. Operators are already compiling overlapping reports for annual LDAR submittals to EPA on different dates. Yet, BLM is proposing a very specific provision requiring an annual leak detection and repair report by March 31 each year. BLM should allow operators to maintain annual summary reports onsite and make such reports available to BLM upon request. This would reduce the burden on BLM to process and file thousands of reports each year.

Recommendation: Revise Section 3179.303(a), add new Section 3179.303(a)(6) to allow operators to maintain the annual EPA and state reports on-site and available for inspection, and make other similar changes to avoid unnecessary duplication.

- **Oil Storage Tanks.** We support many of the provisions relating to oil storage tanks, including providing flexibility for operators to make technical or economic infeasibility determinations on whether a vapor recovery unit ("VRU") should be required. But there is no reasonable basis for additional annual compositional sampling requirements to demonstrate infeasibility of a VRU. While tank vapor composition is an important consideration in speciating tank emissions, our members' technical experience indicates that it is not needed to determine the feasibility of installing a VRU on an oil storage tank. We also recommend the more widely-used and precise term "oil storage tanks" instead of "oil storage vessels." We further believe that the proposed one-year compliance deadline is unreasonable, and instead recommend a 3-year, or alternatively a 3-year phased, adequate implementation timeframe.

  Recommendation: Make clarifying changes to Section 3179.203(a). Revise Section 3179.203(c) to replace the unnecessary annual compositional analysis requirements for storage tanks without VRUs with the proposed provisions for representative compositional analysis requirements as may be required in other reasonable contexts separately and outside of the VRU context.

- **High-pressure flares and Appropriate Metering Devices.** We first recommend revising the definition of high-pressure flare to include a technical limit related to a common unit of pressure to distinguish a high-pressure flare from other flares. Second, the proposed orifice meter requirement for high-pressure flares must be revised to allow the use of any measuring equipment that conforms to an industry standard. We understand and appreciate BLM's attempt to revise its 2016 Rule effort and to move away from its requirements related to measuring all flared gas. Yet, the proposed language that BLM offers now is still troubling because of the significant safety risks that we foresee with mandating orifice meters alone as a measuring device for high-pressure flares. The one-

size-fits-all approach that BLM is contemplating is unreasonable given underlying safety concerns and practical operational considerations. BLM should avoid prescribing specific technologies (and specifically orifice meters) in its regulations, and instead allow metering devices, such as thermal mass meters, ultrasonic meters, or other technologies within industry standards to provide verifiable measurements for high-pressure flares. Many of these such meters are in this use for this application today.

Recommendation: Modify the high-pressure flare definition as follows: an open-air flare stack or flare pit that combusts natural gas at high-pressure volumes of gas leaving a pressurized production vessel greater than 100 psig or more and that in normal operations would go to a sales line.

In addition, flaring from all high-pressured flares must be measured by equipment that conforms to the API Manual of Petroleum Measurement Standards Chapter 14.10, Natural Gas Fluids Measurement -- Measurement of Flow to Flares, Second Edition, December 2021 (API MPMS 14.10].

The above and other concerns regarding the Proposed Rule and its associated Regulatory Impact Analysis ("RIA") are further discussed in our subsequent comments.

In summary, the Associations are committed to working with BLM to resolve these concerns in a manner that allows BLM to satisfy its waste prevention obligations while recognizing the technical innovations and steps our industry has taken, and other agencies are undertaking, to address methane emissions. We encourage BLM to finalize a rule that is legally sound, affords appropriate flexibility, provides regulatory certainty, and supports a robust onshore oil and gas program.

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Introduction

The Associations appreciate the opportunity to provide comments on the BLM's November 30, 2022 proposed waste reduction regulations ("Proposed Rule") to replace the regulations contained in the 1979 Notice to Lessees and Operators of Onshore Federal and Indian Oil and Gas Leases, Royalty or Compensation for Oil and Gas Lost ("NTL-4A"), and certain regulations in Title 43 of the Code of Federal Regulations. This rulemaking reflects BLM's third rulemaking on this subject matter in recent years, following its now-vacated 2016 final rule ("2016 Rule")[3] and 2018 final rule ("2018 Rule").[4]

We submit the following comments for BLM's consideration. We have organized this document into the following sections:

I. General Technical Comments

II. Section-by-Section Comments

III. General Comments on Legal Framework

Throughout these comments, the Associations provide the following 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 we recommend deletion of a proposed section in its entirety.
- Recommended language for addition is indicated in <u>underlined text.</u>

We appreciate BLM's consideration of our comments prior to its publication of any revised proposed rule or any final rule.

[3] 81 Fed. Reg. 83,008 (Nov. 18, 2016).
[4] 83 Fed. Reg. 49184 (Sept. 28, 2018).

I. GENERAL TECHNICAL COMMENTS

The Associations and our members value our strong partnership with BLM in the safe and responsible development of oil and gas on federal and Indian lands pursuant to the standards of the Mineral Leasing Act ("MLA"),[5] the Indian mineral leasing statutes, and BLM's regulatory regime. To that end, we remain committed to reasonable and prudent steps to avoid undue waste of oil or gas. We appreciate federal and state agencies' interest in this area, and support valid, reasonable, and common-sense regulations that complement robust existing industry efforts to capture as much natural gas as technologically and economically feasible, which benefits all stakeholders. In particular, we commend BLM for acknowledging the legal and practical shortcomings of its 2016 Rule as recognized by the Wyoming district court,[6] and for correspondingly making notable improvements in several aspects of its Proposed Rule.

We still have concerns, however, that certain proposed provisions retain the same shortcomings as were in BLM's 2016 Rule. Portions of the Proposed Rule appear to adopt an arbitrarily narrow view of unavoidably lost gas and disregard necessary flexibility across diverse operational circumstances. At base, it is arbitrary for BLM to automatically deem that any flared gas not expressly listed as unavoidably lost then becomes avoidably lost, without operators at a minimum having an opportunity to justify their reasonable and prudent conduct resulting in additional unavoidably lost gas. Other proposals, such as regarding pneumatics and LDAR, potentially create further regulatory burdens through duplication or conflict with other BLM regulations, with EPA and state air quality requirements, and with state, private, and Tribal authority over non-federal production. Any final rule should more firmly adhere to BLM's statutory authority to prevent waste by imprudent or negligent operators, avoid conflict or duplication with EPA's and states' exercise of their exclusive authority over air quality, and be based on substantial support in the administrative record.

Our Section-by-Section comments offer proposed revisions to remediate these issues. Because some of these comments cut across multiple sections of the Proposed Rule, we also address them upfront for BLM's consideration.

1.0 We concur with the Proposed Rule's several improvements upon the 2016 Rule.

The Associations appreciate BLM's consideration of prior regulatory efforts and recent court decisions, particularly by the District of Wyoming, in crafting its Proposed Rule. In response to one of BLM's preamble questions, we concur with BLM's decision to omit gas capture percentages featured in its 2016 Rule.[7] As BLM explains, and API agrees, such requirements are more difficult for operators to implement and BLM to enforce (due to the relative complexity of the calculations) and not necessarily more effective at controlling waste or ensuring

[5] 30 U.S.C. § 181 *et seq*.
[6] See *Wyoming v. USDOI*, 493 F. Supp. 3d 1046 (D. Wyo. 2020).
[7] See Proposed Rule at 73,604.

appropriate royalty payments.[8] We also concur with other of the Proposed Rule's stated aims, such as to delineate several categories of operations resulting in unavoidably lost gas, phase out high-bleed pneumatic controllers, apply only to future production, and respect state and private mineral interests. As discussed throughout our comments, however, further changes are warranted to the Proposed Rule to better achieve these aims while remaining faithful to BLM's statutory authority and maintaining necessary BLM discretion to consider the numerous other situations which can arise but are not listed in the Proposed Rule to maintain operational flexibility.

2.0 BLM provided insufficient opportunity for comments on the Proposed Rule.

BLM has afforded insufficient time for full evaluation and comment preparation on its Proposed Rule. BLM offered even less time for comments on the Proposed Rule's information collection requirements, for which the comment period ran concurrently with the comment period for the Proposed Rule. API and AXPC, among other stakeholders, submitted requests to BLM for an extension of the Proposed Rule's comment period from January 30, 2023 until March 31, 2023, given the complexity of the issues, lengthy related administrative and judicial history, and intervening holiday period. We incorporate by reference and attach the API/AXPC request to these comments. See Attachment 1.

BLM, however, categorically rejected any extension of the comment period. This denial is inexplicable and unreasonable for multiple reasons:

- BLM took more than two years to publish its Proposed Rule following the District of Wyoming's decision vacating the 2016 Rule. This timeframe reflects the complexity of the issues presented. Yet BLM provided a mere 60 days for public review and comment.
- BLM first published its Proposed Rule on November 30, 2022, shortly after Thanksgiving, such that much of the 60-day comment period fell squarely within the holiday season when many staff and leadership of regulated entities and stakeholders were largely unavailable to closely review and comment.
- BLM held its only public information forum on its Proposed Rule on January 11, 2023 ("Forum"), after approximately 75% of the comment period had expired.
- BLM acknowledged that several questions received during its Forum raised issues that BLM had not considered in its Proposed Rule. Yet BLM still refused (both prior to and after that Forum) to extend the comment period.
- BLM faces no statutory deadline for issuance of any final rule.
- BLM's comment period runs concurrently with and ends earlier than the comment period for EPA's proposed rules governing methane releases from oil and gas operations, the outcome of which has major implications for BLM's overlapping Proposed Rule.

[8] See *id.*

At base, BLM's Proposed Rule presents important, complex, and broad-reaching issues, and BLM should take the necessary time to get them right. A needlessly rushed public comment process is inconsistent with the goal for a robust and defensible final rule.

3.0 The Proposed Rule provides insufficient time for implementation.

The Proposed Rule contains different phase-in timeframes for compliance with its various provisions - from no time, to six months, to one year, and no time period in excess of one year. We have carefully assessed all proposed effective dates and provide our recommendations in section-specific comments.

As explained in the Section-by-Section comments below, the Proposed Rule also potentially presents inconsistencies with existing or proposed timelines for state and EPA requirements. For example, BLM would require pneumatic controller replacements within one year, only for states and EPA to then require even further changes a couple of years later. Congress did not give EPA, much less BLM, the authority to require implementation of existing source performance requirements within one year or less. We thus recommend removing Section 3179.201 in its entirety.

We also have concerns that it would be difficult for companies to acquire and install controls on a vast amount of existing equipment located across an assortment of sites within six months or one year. Six months, in particular, is a very difficult compliance timeframe in any scenario. We provide a number of well-reasoned technical recommendations in our Section-by-Section comments which may alleviate some of the potential implementation issues. If additional metering provisions are allowed per acceptable industry and safety standards, that also has the added advantage of more options being available within the marketplace to allow for smoother implementation within a 1-year timeframe.

Moreover, the Associations agree with proposed Section 3179.10(b) that any final rule should apply only prospectively, that is, to production that occurs after any final rule becomes effective. As BLM clarified at its Forum, pending and forthcoming sundry notices seeking unavoidable loss determinations should be resolved under NTL-4A that was in place when that flaring occurred.

In sum, taking into account BLM's position as well as practical considerations, our Section-by-Section comments recommend additional time for compliance relating to oil storage tanks and measurement sections. In other areas such as LDAR where operators are likely to have programs in place due to other federal or state requirements or voluntary efforts, we expect that the short 6-month compliance timeframe for submitting a LDAR plan is possible only if, where applicable, BLM allows operators to submit plans based on ongoing LDAR programs under EPA or state programs.

4.0 Connection of a well to a pipeline does not render flared gas avoidably lost.

The Proposed Rule relies on a flawed presumption that gas flared from wells connected to pipelines (as opposed to unconnected wells) is in most instances avoidably lost. BLM summarily opines that "[w]here the gas-capture infrastructure has already been built out, its economic viability is not in question."[9] In response, BLM proposes to automatically deem nearly all such flaring (above 1,050 Mcf per month per lease, unit, or communitization agreement ("CA")) as avoidably lost and royalty-bearing.[10]

This approach is untenable. As the preamble points out, the "purpose of the economic inquiry under NTL–4A was to determine whether the volumes of associated gas production would make the installation of gas-capture infrastructure economically viable."[11] An economic decision on whether to build a pipeline and related infrastructure is the same regardless if it is for initial or redundant capacity. That is, the inquiry facing an operator who is unexpectedly bumped off connected midstream infrastructure is the same as for a lessee with an unconnected well—whether installing additional capacity to capture and market the intermittently flared gas is economic. Moreover, a redundant system to capture and market the volumes of gas flared from wells within the region requires not only new pipelines but also compressor stations, gas plants, and other facilities that must be built out to accommodate the production. Gas capture infrastructure cannot simultaneously have "already been built out" to handle all connected gas production (as BLM claims) and have insufficient capacity. Accordingly, as addressed in our Section-by-Section comments below, BLM should revisit these proposed provisions and its underlying assumptions.

Relatedly, BLM's proposed flaring limits and waste minimization plan requirements overlook that individual operators generally lack information or control over midstream pipelines and other facilities. Thus, the standalone fact that a well is connected to a pipeline should not consign subsequently flared gas as avoidably lost.

5.0 The Proposed Rule mandates pre-production waste minimization plan information that is unavailable, unclear, unnecessary, and unactionable, and creates regulatory uncertainty through threatened APD delays or denials.

Our members are not entirely opposed to the concept of a waste minimization plan ("WMP") to accompany submission of an APD, and certain states already require it. More problematic are some of BLM's proposed specific information requirements and uses thereof. We summarize these points below. See our Section-by-Section comments on proposed Section 3162.3-1 for additional information. We urge BLM to correspondingly reconsider and narrow its WMP proposal.

[9] Proposed Rule at 73,598.
[10] See Proposed Rule Sections 3179.4(b)(12) and 3179.8.
[11] Proposed Rule at 73,598.

a. BLM's proposed "complete and adequate" condition for a WMP, and its criterion of "[a]ny other information demonstrating the operator's plans to avoid the waste of gas production from any source," create substantial uncertainty and threaten to place untold burdens on operators to satisfy an unbounded BLM standard.

b. The WMP would require "gas pipeline" capacity and other information that is typically proprietary business information of the pipeline company and is not provided to the well operator or the public, including to avoid antitrust concerns. To be clear, this issue is not limited to preservation of confidential information shared with BLM. Rather, such information is unavailable to operators. Moreover, even if attainable, projections of pipeline capacity and well production upon APD submission will almost certainly change based on subsequent developments beyond the operator's control.

c. Other proposed required information would be unhelpful to BLM. For example, BLM does not need each operator in each APD to provide "information on each of the pipelines within 20 miles"—particularly as distance alone is a poor proxy for pipeline accessibility and ignores topography, markets, contractual rights, pipeline specifications, and other key factors.

d. BLM also overstates the application of temporary capture infrastructure technology capabilities absent available pipelines. Activities and temporary pipeline over-capacity situations generally occur over a short period of time, and operators may have little to no notice to manage.

e. It is inconsistent with the MLA and the Administrative Procedure Act ("APA"), 5 U.S.C. § 706(2)(A) and (C), for a BLM regulation to reserve open-ended authority post-APD to prescribe even more so-called "reasonable" measures to capture gas. Operators need certainty that compliance with an approved APD will not yield more future obligations that threaten operations.

f. The Proposed Rule does not address whether, if BLM late in the primary lease term defers or denies an APD based on a purportedly incomplete WMP, the operator may qualify for a suspension of its lease term pending resolution of its APD. If the answer is no, especially in light of other recent BLM guidance appearing to newly limit the availability of suspensions based on BLM processing delays, that result would be a problem.

g. Finally, in this WMP provision and elsewhere in the Proposed Rule, BLM should clarify that the "waste" of gas applies to natural gas, and more specifically associated gas that can be produced in an economic manner and that is of sufficient quantity and quality to be salable. The "waste" of gas should not be construed to apply to emissions of hydrocarbons downstream of separation, as

> this no longer constitutes associated gas and these emissions are subject to air quality regulations not administered by BLM.

The Proposed Rule exacerbates the problems and uncertainty within its new WMP requirements by further proposing express discretionary provisions authorizing BLM to delay or deny an APD based on failing to meet those WMP requirements. However, BLM does not have the authority to delay or deny APDs involving private or state minerals on that basis. Thus, the Proposed Rule still overreaches to regulate non-federal interests in mixed units and CAs, just as the District of Wyoming found for the 2016 Rule. Moreover, BLM lacks authority to defer or deny APDs based on the absence of one or more available pipelines in the vicinity as specified in a newly required WMP. This concern is particularly acute for existing leases and their conferred development rights.

6.0 The Proposed Rule does not sufficiently account for unique facets of Indian lessees and IMDA agreements.

The Proposed Rule, including its unavoidable loss hard caps and WMP requirements, generally would apply equally to onshore federal and Indian (except Osage Tribe) oil and gas leases.[12] However, BLM does not address in the Proposed Rule how its venting and flaring limitations, and their potential to cause premature shut-in or curtailment of oil and gas production from a lease, unit, or CA, may disproportionately impact Indian lessors who rely on the oil production revenues, and who may not be as willing as the federal government to curtail or shut-in oil production to avoid a relatively minor loss of revenue from vented or flared gas.

The Bureau of Indian Affairs ("BIA") is responsible for leasing Indian minerals under regulations in 25 C.F.R. parts 211 and 212. The regulations promulgated under the Indian Tribal mineral leasing statute[13] apply to minerals owned by Tribes which are held in trust by the United States.[14] The Department 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."[15] The regulations implementing the IMDA provide even greater deference to the interests of the Tribal mineral owner:

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[12] See *Wyoming*, 493 F. Supp. 3d at 1063 ("The terms of the MLA and [the Federal Oil and Gas Royalty Management Act] make clear that Congress intended the Secretary, through the BLM, to exercise rulemaking authority to prevent the waste of Federal and Indian mineral resources and to ensure the proper payment of royalties to Federal, State, and Tribal governments."). Section 3170.1 of BLM's regulations, entitled "Authority," cites to the full range of Indian mineral leasing statutes including the Indian MLA, 25 U.S.C. Section 396a *et seq.*; the Act of March 3, 1909, 25 U.S.C. Section 396; and the Indian Mineral Development Act ("IMDA"), 25 U.S.C. Section 2101 *et seq*.

[13] 25 U.S.C. § 396a *et seq*.

[14] 25 C.F.R. § 211.1(a).

[15] *Id.* (emphasis added).

> 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.[16]

The federal government's statutory authority over mineral leasing on allotted Indian lands is based on 25 U.S.C. § 396. This statute likewise places fiduciary-like duties on the Secretary to ensure development of allottee minerals, and BIA's regulations 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."[17] 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."[18]

Pursuant to these authorities, the Secretary has delegated to the BIA the authority to oversee leasing of Indian oil and gas. These leases contain unique terms that evolved throughout the years and can differ in material aspects from BLM's lease form issued pursuant to the MLA. These differences may be significant in relation to royalty payment and waste prevention requirements. They also may affect how BLM must take economic impacts into consideration when making avoidable/unavoidable loss determinations. BLM has not demonstrated how the royalty and waste prevention provisions under Indian oil and gas leases and IMDA agreements, and the requirements of BIA's regulations relating to protecting the economic interests of the Indian mineral owners, are consistent with the time and volume flaring limits BLM is proposing to implement across the board for all federal and Indian leases. At its Forum, BLM merely indicated that consultation with Indian stakeholders was ongoing. Failure to separately and sufficiently account for production from Indian lands could render any final rule arbitrary and capricious and unsupported under the APA.

7.0 The RIA is flawed in several respects, and even facially its cost-benefits analysis indicates that the Proposed Rule has significantly more costs than benefits, not justifying the need for this rulemaking.

We have a number of concerns with the RIA that we will address in our comments; however, more intensive economic analysis was not possible given the limited time that was provided for comment. As discussed above, we recommend that BLM extend the comment period to allow

[16] 25 C.F.R. § 225.1 (emphasis added).
[17] 25 C.F.R. § 212.1(a).
[18] *Id.* (emphasis added).

more time for further data gathering and to facilitate a more thorough vetting of the cost-benefit analysis.

As an initial matter, per BLM's own estimates, the Proposed Rule unquestionably results in many millions of dollars of net losses every year. BLM calculates that this Proposed Rule would cost operators $122 million a year, using a 7 percent discount rate, for the next 10 years ($110 million a year using a 3 percent discount rate), while generating benefits to operators of only approximately $54.2 million a year, using a 7 percent discount rate, in the form of 15.3 Bcf of additional captured gas ($54.8 million using a 3 percent discount rate).[19] The RIA also estimates that this Proposed Rule would generate only $39 million a year in additional royalties. (Note: The figures here are presented in 2020 dollars).[20]

Despite BLM's clear acknowledgment that "the costs of this rule to operators will outweigh the benefits in terms of the monetized market value of the gas conserved," BLM attempts to justify the Proposed Rule on two flawed bases.[21] First, "BLM notes that the statutory provisions authorizing BLM to regulate oil and gas operations for the prevention of waste do not impose a net-benefit requirement."[22] To the contrary, as discussed below, the MLA and longstanding agency considerations under NTL-4A squarely require BLM to apply a reasonably prudent operator standard to determine whether it was economic to capture the gas.

Second, BLM attempts to justify the Proposed Rule by performing an improper calculation and offset of the social cost of greenhouse gases ("SCGHG") by including estimates of social costs and benefits of greenhouse gas emissions.[23] This conclusion alone warrants substantial revisions to the Proposed Rule prior to any final rule. That is particularly true given that BLM repeatedly claims that the Proposed Rule does not rely on purported air quality (including climate) benefits. As the District of Wyoming found, "BLM cannot rationally claim the Rule's objective is waste prevention while justifying its considerable costs almost entirely on climate change benefits."[24] And while the Proposed Rule's preamble summarily asserts that "the statutory provisions authorizing the BLM to regulate oil and gas operations for the prevention of waste do not impose a net-benefit requirement",[25] BLM neither squares that assertion with the economic underpinnings of waste, nor explains why it is anything other than arbitrary to adopt a rule that imposes tens of millions of dollars in costs every year. Analogously, the District of Wyoming found for the 2016 Rule that "[a]bsent the ancillary benefits monetized by the BLM, the Waste Prevention Rule is arbitrary and capricious, as it will cost likely more than

[19] Proposed Rule at 73,599.
[20] *Id.* See also Estimated annual total benefits with and without methane reductions (with Net Present Values for 3 percent and 7 percent discount rates) covered in Tables 8.2 and 8.3 of the RIA.
[21] *Id.* at 73,659-73,600.
[22] *Id.* at 73,600.
[23] *E.g., id.* at 73,589, 73,599-600; RIA at 55.
[24] *Wyoming*, 493 F. Supp. 3d at 1079.
[25] Proposed Rule at 73,600.

double what it saves annually."[26] If BLM can simply brush aside a RIA's net-negative conclusion, the RIA becomes a meaningless exercise.

While BLM states that the SCGHG analysis is excluded, the Proposed Rule appears in all other ways to be justifying its requirements in terms of the benefits of these calculations. BLM states that it "is expressly excluding the SCGHG from the considerations underpinning any of the proposed waste prevention requirements, thereby addressing the Wyoming court's concern that the 2016 Rule was inappropriately supported by 'climate change benefits.'"[27] Yet, the RIA states that, "as part of the analysis of costs and benefits, we considered the social cost and benefits of the estimated emissions reductions and monetized the social benefits of those reductions using the Interim Estimates of the Social Cost of Greenhouse Gas Emissions (IWG 2021)."[28] BLM also states that the purpose of reporting SCGHG estimates is "solely to provide the most complete accounting of the costs and benefits of the Proposed Rule for the public's awareness and consideration."[29]

However, contrary to the District of Wyoming's express ruling, BLM still appears to be justifying the Proposed Rule largely based on the benefits it has calculated utilizing the SCGHG. As we have commented in other contexts, and do not repeat here, that sole reliance is particularly troubling given the inherent subjectivity and flaws in current SCGHG estimates and their applicability to agency actions such as this Proposed Rule. As such, we request that BLM remove all consideration of SCGHG from the text of the final RIA and reconsider the costs and benefits of the rule independently and as related to its statutory authorities.

As it stands, the Proposed Rule's RIA has not demonstrated adequate benefits to justify promulgating the rule. The Proposed Rule would impose costs of about $122 million per year (with costs annualized for a 7 percent discount rate).[30] The estimated benefits are significantly less at around $55 million per year based on the recovery or sale of captured gas from pneumatic controllers, storage tanks, and LDAR (2022 dollars).[31] These are in essence requirements for emissions controls, monitoring, record keeping, and reporting that are to a large extent in place under NSPS Subpart OOOOa requirements. In addition, NSPS Subpart OOOOc will capture sites not currently regulated by OOOOa and OOOOb. As discussed in the RIA, EPA's efforts to control emissions under NSPS Subpart OOOOa regulations co-benefit BLM in reducing the loss of gas from certain sources because these rules apply to operations nationwide, including those on federal and Indian lands. However, it is not entirely clear the extent to which BLM has met its burden of providing its own independent justification for its separate requirements that propose to regulate the same or similar equipment.[32] The RIA, for

[26] *Wyoming*, 493 F. Supp. 3d at 1080.
[27] Proposed Rule at 73,597.
[28] RIA at 18.
[29] *Id.*
[30] RIA at 5.
[31] *Id.* at 5-6.
[32] *Id.* at 13.

example, notes that since most of the associated costs are upfront in the first year, the benefits continue over the life of the equipment and that the longer the timeframe, the more benefits would be realized.[33] Again, because of proposed NSPS Subparts OOOOb and OOOOc, the proposed BLM equipment requirements are likely to be eclipsed by the upcoming EPA regulations, and costs associated with pneumatic equipment will actually increase rather than decrease because of additional steps operators will need to take to replace the equipment to meet varying compliance deadlines under EPA and state requirements.

We appreciate that BLM recognizes that its analysis may not account for voluntary actions already undertaken by operators that comply with certain proposed requirements.[34] BLM specifically mentions that the estimated costs of the LDAR requirements are particularly uncertain since many operators "reportedly have some type of LDAR programs in place" (emphasis added).[35] While we cannot provide more specific data on the LDAR programs in the short time provided, we can state that as an industry, robust LDAR programs due to federal or state requirements, or voluntarily undertaken, are frequently a best management practice found at most of our members' operations. A few examples for implementing LDAR programs, including performing LDAR prudently and safely, that operators rely on include following the best practices under Method 21 – Determinations of VOC Leaks, as well as meeting regulatory requirements under 40 C.F.R. part 60 NSPS Subpart OOOOa, and state programs such as New Mexico, Wyoming, Colorado, North Dakota, Utah, California, Texas, and Oklahoma. The same is true for pneumatic equipment where the oil and gas industry has progressed generally over time toward implementing low-bleed pneumatic equipment in its operations where feasible, and is considering options for non-emitting pneumatic equipment (subject to limited exceptions) as proposed in the upcoming EPA regulations.[36]

We also appreciate that BLM recognizes that there are uncertainties associated with emissions data and controls relating to site-specific circumstances that could create significant differences in costs and benefits.[37] We wholeheartedly agree with BLM that there are uncertainties unaccounted for involving factors such as individual characteristics of the well and conditions outside of the operator's control such as availability and viability of alternative capture technologies that impede an operator's ability to deliver the gas to market. Based on our members' experiences, other permits also need to be factored in, such as permits for rights-of-way for the natural gas gathering line/systems before they are installed which can take much

[33] *Id.* at 1.
[34] *Id.* at 28-29.
[35] *Id.* at 29-30.
[36] We note that the BLM considered the option of requiring no bleed air-activated devices for this proposed rule but that the requirement seemed to impose excessive costs relative to the losses of gas that would be prevented. RIA at 40-41. We agree with the BLM's decision to not require no-bleed devices, and would further submit that with the EPA contemplating this no-bleed direction with its proposed NSPS Subparts OOOOb and OOOOc requirements, this entire topic relating to pneumatic equipment should be left within the EPA and states' domain. Operators need regulatory certainty and consistent time-frames in order to pivot to the more strenuous requirements that the EPA is proposing to adopt. See our comments below under Section 3179.201.
[37] *Id.* at 30.

longer than getting permits to drill wells. When additional burdens are added to the permitting process such as the inclusion of a WMP with extensive and difficult submittal requirements, they can also add time and costs to other associated permitting requirements. Delays of these types can impact safe and responsible long-term investment planning for energy infrastructure that are crucial to meeting the nation's energy demands.

In addition, specific administrative items that underestimate burdens to the operators include but are not limited to the following:

- While most of the WMP requirements are retained from the 2016 Rule, the estimated administrative burdens have been reduced to 5,000 annual responses with only one hour each for average response time, thus the annual burden in hours is listed as $5,000.[38] Yet, in the 2016 Rule, this estimate was 8 hours per response.[39] Given the very extensive list of requirements for WMPs in the Proposed Rule that is similar to the 2016 Rule, one hour for preparing a response vastly underestimates the costs to the operators considering WMPs would be required for every APD submitted. For more realistic accounting, we would be supportive of reducing the WMP submittal requirements to reduce the response times.

- Based on our members' extensive industry experience, our review of BLM's cost estimates of $500 per annual sampling to acquire a compositional (c10+) analysis suggests that those costs are underestimated.[40] Our experience suggests that a single c10+ analysis often has a likely cost of $1,500-$3,000 with labor, sample collection, and shipping. Also, these analyses are time-intensive and usually take a minimum of a month to complete, and those burdens need to be accounted for. We encourage BLM to update and support this estimate in the RIA.[41]

  The number of orifice meters that would be required to be installed during the first year is projected at 968 meters, and then 10 percent of that number added every year.[42] These numbers do not appear to be an accurate representation because the 968 meters projection is based on the number of units that are producing above 1,050 Mcf a month (as reported by ONRR in 2019).[43] As we discuss below in the Section 3179.9 comments, this requirement has broader ramifications than just to high-pressure flares because the proposed definition of high-pressure flares is not specific to certain types of flares but hinges on a volume limit of 1,050 Mcf monthly. Thus, given fluctuations in volumes to be expected within standard operations, orifice meters may be required across all flares regardless of volume. In addition, the BLM assumptions do not take into account the

[38] *Id.*at 55-56.
[39] Section 7.13, Administrative Burden, RIA, 2016 Rule at p. 96.
[40] *Id.* at 45.
[41] *Id.*
[42] *Id.* at 36.
[43] *Id.*

threshold operational principle that companies are incentivized to capture as much natural gas as economically feasible to sell on the market. As such, routine flaring to manage gas that cannot be captured or processed is not the norm or a best management practice; instead, flares such as high-pressure flares are largely used infrequently for safety or emergency situations to release pressure.

- BLM notes that it would not expect incremental costs or benefits for any operators that currently administer an LDAR program; yet, BLM proposes to require its own annual report that it anticipates will cost $708,300.[44] As our comments recommend, costs can be reduced if BLM allows operators to make available for inspection the annual report that meets the reporting requirements under NSPS Subpart OOOOa.

- For both orifice metering and VRU estimates, BLM assumes an estimate of one VRU/orifice meter per lease/unit/CA.[45] For a VRU, BLM agrees that it does not have data on the number of storage tanks or well sites on BLM managed land.[46] Assuming one per lease/unit/CA in itself would call into question the cost estimates that follow. Also, BLM makes some assumptions and arrives at 2,084 storage tanks that will be subject to the annual compositional analysis if a VRU is not installed.[47] Since the standard under Section 3179.203(b) for whether or not a VRU can be installed is based on "technical and economic infeasibility," it is unclear how BLM incorporated that standard into its assumption.

- The Proposed Rule's information collection requirements exceed what BLM requires to prevent undue waste and they impose unnecessary burdens on operators. We incorporate by reference and attach the December 30, 2022 submitted comments by API and AXPC on BLM's proposed information collection requirements. See Attachment 2.

[44] *Id.* at 56.
[45] *Id.* at 36, 44.
[46] *Id.* at 44-45.
[47] *Id.* at 45.

II. SECTION-BY-SECTION COMMENTS

1.0 43 C.F.R. Section 3162.3-1(j) & (k) – Waste minimization plan requirements.

The Proposed Rule, like the 2016 Rule, introduces new requirements for operators to prepare and submit WMPs. Many aspects of BLM's new proposal mirror and present similar concerns as the 2016 Rule, principally around proposed requirements for types of information that operators either do not have or cannot obtain, or in any event is confidential or proprietary. Moreover, the Proposed Rule goes beyond the 2016 Rule, including by adding new open-ended criteria, and enabling BLM to defer action on an APD where BLM is dissatisfied that the operator's WMP will prevent what the Proposed Rule calls "unreasonable and undue waste." These proposals, too, are problematic.

The overall concept apparently driving the proposed WMP requirements is that individual operators and BLM can figure out the available capacity of every segment of every midstream gathering system at the exact time every future well is drilled. But that concept is unrealistic and arbitrary. Operators of BLM leases and agreements do not have the contractual insight to decipher midstream companies' existing gathering capacity, future gathering system expansion plans, or the current wells/gas flowrate under contract. Also, no one knows all of the development plans of the contracted midstream companies or of other operators committing to the same or other midstream infrastructure. Even if this information were discernible, it would change before becoming operative in the field within the two years the approved permits are valid. And in any event, BLM cannot rely on WMP requirements to preclude development, particularly on mixed units and CAs encompassing state and private lands. Accordingly, if BLM elects to retain WMP requirements in any final rule, we recommend that they be better tailored to BLM's legal authority and practical realities.

1.1. Section 3162.3-1(j) – Applicability should be limited to development oil wells.

The proposed WMP provisions apply to an APD for "an oil well." BLM's intent appears to be for the rule to only apply to development oil wells that would have venting or flaring of associated gas. BLM should clarify that the requirements only apply to associated natural gas as noted in our general comments above, and that the WMP is required to be submitted with an APD only for development oil wells where flaring associated gas of sufficient pressure to enter the sales line after initial completion and testing is anticipated.

1.2. Section 3162.3-1(j) – Much of the requested information for WMPs is not realistically available to operators legally, practically, reliably, or otherwise, thus rendering compliance impossible. Much of the requested information also is preliminary, incomplete, limited, and thus not particularly useful to BLM.

Several of BLM's proposed criteria should not be required for WMPs, as they do not reflect types of information that are available to operators or useful to BLM. Most noteworthy are proposed WMP requirements pertaining to gas pipeline plans or capacity. Similarly unfounded

are criteria based on expected oil and gas production rates and duration, the expected production decline curve for every new well, and the location of each existing trunkline within 20 miles for operators that cannot identify a gas pipeline with sufficient capacity to accommodate the anticipated production. The end result of BLM imposing impossible information requirements would be widespread uncertainty, deferrals, and denials of APDs, including for existing leases and agreements. At the same time, the Proposed Rule does not explain the utility of such information to BLM in performing its statutory obligations. Such an outcome of the Proposed Rule is not a reasonable application of BLM's authority to prevent undue waste.

Operators typically commit large swaths of acreage to midstream dedication agreements. Under these agreements, acreage is dedicated to future midstream services with a particular midstream company. As is standard in most midstream contractual agreements with lessees in a given region, to support midstream companies' substantial investment to construct the infrastructure necessary to gather and process gas in the area, midstream companies require an exclusive commitment of an operator's production from the operator's leases in a given area or region. For example, Gas Purchase Agreements typically 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.

Attempting to deliver gas to a second system, even where one might exist or hypothetically could be constructed, therefore presents a legal risk for existing contracts and take-away capacity for large areas of land.

If on rare occasions a midstream company provides capacity data to an operator, most midstream agreements are subject to confidentiality provisions, which prohibit operators from sharing data and information received from the midstream company with third parties except in limited circumstances. Failure to hold this information confidential can result in operators' breach of the midstream agreement, putting takeaway capacity for the entire agreement area in jeopardy. These contractual arrangements both burden and run with the land, and are difficult to modify—even when regulations change.

In addition to ensuring that operators are not breaching their midstream agreements, and thus jeopardizing gas takeaway commitments for the entire contract area, operators must ensure compliance with anti-trust and unfair trade practices laws. New Mexico weighed these considerations and created a state rule requiring operators to ensure that proper gas takeaway dedications are in place when the APD is submitted. A short version of the

New Mexico natural gas WMPs requires operators to additionally provide the following information:

> (a) the operator's name and OGRID number;
> (b) the name, API number, location and footage of the well;
> (c) the anticipated dates of drilling, completion and first production;
> (d) a description of operational best practices that will be used to minimize venting during active and planned maintenance; and
> (e) the anticipated volumes of liquids and gas production and a description of how separation equipment will be sized to optimize gas capture.[48]

In the event operators are not compliant with New Mexico's gas capture percentage requirements, more information is then required regarding gas capture planning in future APD submissions.

Operators may not be readily able to produce the following midstream information in a WMP as they may not have access to or have complete information or the contractual rights to this information under their midstream agreements:

- Maximum current daily capacity of the pipeline;
- Current throughput of the pipeline;
- Anticipated daily capacity of the pipeline at the anticipated date of first gas sales from the proposed well;
- Anticipated throughput of the pipeline at the anticipated date of first gas sales from the proposed well; and
- Any plans known to the operator for expansion of pipeline capacity for the area that includes the proposed well.

1.3. Section 3162.3-1(j) – Recommend language for WMP purposes that is within the purview of BLM's statutory authorities, is within operators' ability to attain and share legally or otherwise, and does not impose administrative burdens on agency and operator resources.

When filing new APDs, operators could agree to provide: the estimated completion date; the estimated initial gas flowrates; the gas processing company they are contracted with; or, if not covered, the operator's planned gas gathering/processing company, or alternative uses for the gas (if applicable). Any BLM final rule should refine its WMP criteria accordingly.

The Proposed Rule adds another criterion at Section 3162.3–1(j)(6) encompassing "[a]ny other information demonstrating the operator's plans to avoid the waste of gas production from any source . . . ." This criterion is undefined and ostensibly could lead to BLM finding a WMP

[48] NMAC 19.15.27.9(D)(1)(a)-(e).

noncompliant even if all of the preceding enumerated criteria were met. Moreover, this criterion's express reference to pneumatics, oil storage tanks, and leaks implicates concerns raised in our comments on other sections of the Proposed Rule regarding these topics.

We understand that any confidential information that an operator may have in its possession and could submit to BLM would be marked confidential and not releasable to the public following BLM's process, but we again strongly encourage BLM to not mandate submission of confidential information that introduces legal vulnerabilities for operators for information that is unnecessary or not central to BLM's core mission and statutory authorities. Even if BLM might be inclined to protect the confidentiality of such information once shared with BLM, these protections are not self-implementing or absolute, particularly when BLM responds to requests under the Freedom of Information Act. The Proposed Rule therefore would create new administrative strains on agency resources as well as substantial burdens on operators.

1.4. Section 3162.3-1(j) – Recommend deleting language allowing BLM to deny an APD based on a vague standard "if the operator fails to submit a complete and adequate" WMP.

Like the 2016 Rule, the Proposed Rule would allow BLM to deem a WMP deficient and correspondingly deny an accompanying APD as not "complete and adequate." Yet BLM offers no defined standard for making this determination, and thus appears to preserve broad discretion to reject WMPs and correspondingly delay approval of or even decisions on APDs. This provision is overly vague and BLM should remove it from any final rule.

1.5. Section 3162.3-1(k) – Recommend removing as necessary the proposed new section enabling BLM to take action to approve with conditions, defer, or deny an APD.

The Proposed Rule would add a new Section 3162.3-1(k) licensing 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)." As an initial matter, the Proposed Rule's cross-reference is incorrect as the referenced definition is in proposed Section 3179.3. More importantly, as discussed below, the term "unreasonable and undue waste" is unnecessary within the Proposed Rule and should be omitted from proposed Section 3162.3-1 as well. Deletion of this proposed provision would not compromise BLM's authority to take actions necessary to prevent undue waste by adding appropriate conditions of approval to the APD.

1.6. Section 3162.3-1(k) – BLM does not have the authority to delay or deny APDs involving private or state mineral interests.

Though the Proposed Rule exempts state and private lands from certain of its provisions, those exemptions do not include BLM's proposed WMP requirements. They should in any final rule. As the District of Wyoming has held, including in response to claims brought by the States of

North Dakota and Texas, the 2016 "Rule's application to State and private mineral interests is unlawful."[49] 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[.]"[50] "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."[51] "[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."[52] The same legal constraints apply to the Proposed Rule. Thus, BLM cannot deny an APD for mixed CAs based on alleged failure to satisfy BLM's WMP criteria.

1.7. Section 3162.3-1(j) – BLM has underestimated the burden of the waste minimization plan for each oil well.

As discussed in our comments on the RIA, the Proposed Rule's WMP provisions would add substantial burdens on both BLM and operators. Moreover, as written, overlaying this WMP process on APD decisions—which already routinely face delays—will create uncertainty and delays in the permitting process.

1.8. Section 3162.3-1(j)-(k) – Recommended Revisions.

(j) When submitting an Application for Permit to Drill a~~n~~ 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. 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

[49] *Wyoming*, 493 F. Supp. 3d at 1081.
[50] *Id.* at 1082 (citing 30 U.S.C. § 226(m)).
[51] *Id.*
[52] *Id.* at 1085.

include the following information to the extent it is available to the operator and is not proprietary and 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; and

(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;~~

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

~~(iv) 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.~~

2.0 43 Subpart 3179 – Waste Prevention and Resource Conservation

2.1. Section 3179.1 – Recommend clear language on superseding NTL-4A.

The preamble provides that, if BLM adopts a final waste prevention rule, NTL-4A will be superseded in its entirety for venting and flaring occurring after the effective date of any BLM final rule. Yet, BLM must clearly specify in the operative regulatory language itself that NTL-4A is superseded in its entirety, or alternatively, which NTL-4A sections are superseded.

The Proposed Rule's current language in its purpose section only vaguely provides that "portions" of NTL-4A are superseded "pertaining to, among other things . . . ."[53] Otherwise,

[53] 43 C.F.R. Section 3179.1

because NTL-4A constitutes an existing regulation despite existing outside the C.F.R., NTL-4A arguably will continue to survive alongside any new provisions a BLM final rule adopts in subpart 3179.

The same recommendation applies to any amendments to the existing BLM regulations in Title 43 of the C.F.R.

Recommended language:

§ 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 after [EFFECTIVE DATE OF THE FINAL RULE]~~. pertaining to, among other things, flaring and venting of produced gas, unavoidably and avoidably lost gas, and waste prevention~~.

2.2. Section 3179.2 – Scope.

2.2.1. Section 3179.2(a) and (b) – Support exclusions for state and private tracts.

As discussed in our legal framework comments further below, and as BLM and courts have previously recognized, BLM's authority over state and private mineral interests is limited, including in what the Proposed Rule labels "mixed-ownership" units or CAs. The Proposed Rule represents a positive step forward from the 2016 Rule by exempting state and private lands from several proposed provisions.[54]

However, as also discussed elsewhere, the Proposed Rule still overreaches to regulate non-federal and non-Tribal interests. This conclusion particularly applies to the Proposed Rule's WMP provisions, which purport to limit APD approvals including for mixed ownership agreements. The scope of the applicability of Subpart 3179, which BLM has proposed under Section 3179.2, is far too broad and difficult for operators to discern. Specifically, consistent with the District of Wyoming decision on the 2016 Rules, we recommend that any final rule provisions that restrict permitting or uniquely limit production should apply only to leases, units, or CAs with a 100 percent federal or Tribal interest. Accordingly, BLM should strike proposed Section 3179.2(a)(4) in its entirety, and correspondingly expand the scope of proposed Section 3179.2(b)'s exemptions. At a minimum, BLM should adopt our above recommended changes to 3162.3-1(j) to exclude mixed-ownership agreements from WMP

[54] See Section 3179.2(b).

requirements, or alternatively expand proposed Section 3179(b)'s exclusions to cover those provisions as well.

Section 3179.2(b)'s exemptions also make no mention of application of Section 3179.8's flaring limits to private and state mineral interests. Yet, BLM there acknowledges its inability to mandate its volumetric capture requirements where doing so "would adversely affect production of oil or gas from non-Federal and non-Indian mineral interests."[55] Absent special BLM dispensation in a unit agreement or CA, BLM must resort to the relevant state requirements to take action.[56] BLM appears to recognize these limitations on non-federal interests in proposed Section 3179.8(b) regarding curtailment or shut-in of production where an operator flares more than 4,000 Mcf per month for three consecutive months and flaring is ongoing. Section 3179.2(b) should be consistent.

Consistent with our general comments, the Associations also recommend that BLM further clarify Section 3179.2(a) and justify the Proposed Rule's application to Indian leases and IMDA agreements that have different statutory underpinnings and terms different from federal leases and agreements.

2.3. Section 3179.3 – Definitions.

As a threshold issue, a number of the Proposed Rule's definitions are also found in applicable state programs. For efficiencies in regulating the same or similar programs that operators are already familiar with and are operating under, we recommend language generally stating that "for the purposes of this section, where there is a state definition that applies for the same BLM term, the BLM will apply the definition used in the state in which the applicable gas or oil well is located."

As an additional step where conflicts arise, such language can also be added as part of any state variances or negotiated as part of a Memorandum of Understanding ("MOU") with the applicable stage agency per our recommendation for a more coordinated sustainable approach.[57]

2.3.1. BLM definition: "Automatic ignition system" – Recommend deleting this definition with corresponding deletion of the section where the term is applied under Section 3179.6(b).

BLM in Section 3179.3 proposes the same definition of "Automatic ignition system" as in the 2016 Rule and the 2018 Rule. BLM again would require flares or combustion devices to be equipped with automatic ignition devices, but newly proposed language in Section 3179.6 would subject operators to an immediate assessment of $1,000 upon discovering a flare that is

[55] See Section 3179.8(c).
[56] *Id.*
[57] See Section 3179.401 discussions on State or Tribal Variances.

not lit. As drafted and for reasons we explain below under Section 3179.6(b), we recommend deletion of this definition and the corresponding section where the definition is used.

As stated in the District of Wyoming decision, "[f]or waste minimization and resource conservation purposes, no difference exists between eliminating excess methane by venting it or flaring it"; the only difference is for air quality purposes.[58] Thus, requiring automatic ignition or ensuring flares are lit is beyond BLM's authority. If BLM inspects a federal site and believes there are air emissions issues, they should notify the appropriate environmental agency of such concerns.

Notwithstanding our overall recommendation, we are supportive of the definition itself as drafted within the narrow context of BLM's statutory authority as related to waste prevention. We agree with BLM's approach to not require a specific type of device but to allow operators to make that decision as appropriate for their site. As BLM explained in the 2016 Rule preamble, "the term 'automatic ignition system' implies the concept of maintaining an ignition source without specifying a particular type of device," and "operators will utilize devices that are appropriate for the circumstance."[59] Also, for situations that do not fall under this definition such as an emergency/non-continuous flare that is manned, there should be an option provided to relight the flare manually. New Mexico's air quality rules, for example, include provisions for a continuous pilot flame, an operational auto-ignitor, or required manual ignition.[60] Specifically, the rule specifies that "a flare with a continuous flare or an auto-ignitor shall be equipped with a system to ensure the flare is operated with a flame present at all times when gas is being sent to the flare," but it also includes a provision that "the owner or operator of a flare with a manual ignition shall inspect and ensure a flame is present upon initiating a flaring event.[61]

2.3.2. BLM definition: "Liquids unloading" -- Recommend clarifying revisions.

BLM offers the following definition**:** "Liquids unloading means the removal of an accumulation of liquid hydrocarbons or water in the wellbore of a completed gas well." We offer the following edits for consistency and clarity.

Recommended language:

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

[58] *Wyoming*, 493 F. Supp. 3d at 1068.
[59] 2016 Rule at 83,050.
[60] NMAC 20.2.50.115(C)(1)(b) (Control devices and closed vent systems, Requirements for open flares).
[61] NMAC 20.2.50.115 (C)(1)(b)(i) and (ii).

2.3.3. BLM definition: "Gas well" – Recommend that the definition of "gas well" be deleted.

The Proposed Rule creates a specific definition for the term "[g]as well." This is defined 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." We recommend that this proposed definition be deleted for the following reasons.

It is unclear how and when BLM will apply this definition. This is important because historically BLM has deferred to the State Conservation Agency definitions as to what constitutes a "gas well" and what constitutes an "oil well." As a result, states have adopted pool rules, field rules, and statewide standards for the classification of wells and well spacing—which is dependent on how the wells are classified under state law. Oftentimes, such classification for a pool, well, or field to qualify as a gas producing area is the result of technical hearings and geologic evidence regarding the reservoirs within a designated area. The definitions adopted by state agencies were made through the application of decades of technical experience.

The "gas well" classification is then used by operators in a wide variety of regulatory paperwork submitted to both the states and BLM. This definition also is foundational to set well spacing, which is used for developing a CA. By creating a BLM definition for the term "gas well" in a manner that differs entirely from long-used state definitions, operators will have questionable approvals for existing wells and will need to resubmit pending APDs, sundries, well spacing plats, CAs (redefining the spacing unit areas), commingling approvals and applications, and more. This creates confusion when working with states and BLM 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."[62] This is materially different from the definition proposed by BLM. Similar examples exist in other states as well.

We have concerns about how these inconsistencies will be reconciled and treated by BLM under the Proposed Rule. At its January 11 Forum, BLM responded to a question on this topic by suggesting that BLM would defer to state regulations for well classifications, and we support this position. Given BLM's intent and the need for technical clarity within the regulatory text, we recommend deleting this confusing and unhelpful proposed "gas well" definition in its entirety from proposed Section 3179.3, and replacing that term in proposed Section 3179.7 as provided in our below comments on that Section.

[62] NMAC 19.15.2.7.

2.3.4. BLM definition: "Lost oil or lost gas" – Recommend clarifying changes to accommodate consistency with other sections.

The definition of lost oil or lost gas should expressly exclude royalty-free lease use volumes 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[.]"[63] We believe this omission was an inadvertent oversight by BLM and should be corrected in any final rule.

Recommended language:

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.

2.3.5. BLM definition: "Unreasonable and undue waste of gas" – Recommend removing this definition entirely.

The proposed new term "unreasonable and undue waste of gas" tied to proposed LDAR, APD processing, and oil-well gas flaring requirements is unnecessary, mixes up key MLA concepts of avoidably lost and unavoidably lost gas, and adds another onerous provision likely to cause more confusion and regulatory uncertainty.

The term appears unnecessary given its limited use within the Proposed Rule. In the context of flaring from wells connected to pipelines facing capacity constraints, the Proposed Rule sets out a numeric limit (ongoing flaring exceeding 4,000 Mcf/month for three consecutive months), rendering the qualitative term surplusage. See proposed Section 3179.8. In the context of WMPs and APDs, the Proposed Rule allows BLM to approve a plan even when it determines unreasonable and undue waste could occur by allowing payment of royalty.[64] And in the context of LDAR, the Proposed Rule merely references the term in passing, before requiring submission of an LDAR program with largely unspecified elements.[65] The term appears nowhere else in the Proposed Rule. Accordingly, inclusion of this defined term does not appear to advance waste prevention, and payment of royalty would be determined depending on whether the production was unavoidably lost as separately delineated within the Proposed Rule.

[63] Public Law 117-169, Section 50263(b)(2).
[64] See proposed Section 3162.3-1(k)(2).
[65] See proposed Section 3179.301(a).

Additionally, the proposed definition is unintelligible without an economic component. Absent economic considerations, it is unclear what loss of gas could not be "avoided." There will nearly always be more net energy if flaring does not occur and economics of capture infrastructure were no concern. Like the District of Wyoming found for BLM's 2016 Rule, BLM's new Proposed Rule "departs from BLM's historical interpretation of waste by conflating 'waste' with 'loss' of gas, rejecting economic considerations in determining waste, and disregarding the waste that would occur if oil and natural gas is left in the ground because wells are prematurely abandoned."[66] The proposed definition of "unreasonable and undue waste" of gas appears to be the product of BLM borrowing select words from NTL-4A without its economic undergirding.

2.3.6. BLM definition: "Leak" – Recommend revising the definition to reflect the Proposed Rule's streamlined LDAR program.

We recommend streamlining the more detailed leak definition (i.e., removing paragraphs (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. In addition, paragraph (1) specifies a certain type of instrument, but given that the area of leak detection technology is rapidly evolving, BLM should not include such prescriptive provisions which preclude consideration to improved technologies.

Recommended language:

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 left open, a leaking VRU, or an improperly sized combustor, are considered leaks.

[66] *Wyoming*, 493 F. Supp. 3d at 1075.

2.3.7. BLM definition: "High-pressure flare" – Recommend revising the definition to include a technical limit related to a common unit of pressure to distinguish a high-pressure flare from other flares.

A numeric limit based on a pressure unit is needed to distinguish the generic text definition that appears to apply to all flares without distinction and thus is not of value within the context it is applied in proposed Section 3179.4. We recommend a definition that is based on a justifiable numeric limit and can assure greater regulatory certainty, especially when the consequence is that all high pressure flares as defined would require a measuring device (i.e., orifice meter per the Proposed Rule) to be installed.

Based on our members' extensive technical experience with flares in oil and gas operations, we propose defining a flare based on a unit of pressure set at 100 psig. In general, when a major interruption occurs in the ability to deliver oil well gas to the gathering system for processing sales, nearly all of this larger volume of gas that will be flared will come from that first stage of separation. Based on our experience, typical first stage separators operate at pressures from 100-250 psig. Thus, applying the more conservative lower end of the operating pressure range for high pressure would mean that most of the high volume flares would be subject to metering while low pressure flares that BLM intends to exclude would be subject to proposed Section 3179.9(c) relating to requirements for all other flares.

Recommended language:

High-pressure flare means an open-air flare stack or flare pit <u>that combusts natural gas</u> ~~designed for the combustion of natural gas~~ <u>at high-pressure volumes of gas</u> leaving a pressurized production vessel ~~(such as a separator or heater-treater) that is not a storage vessel~~<u>at greater than</u> 100 psig or more and that in normal operations would go to a sales line.

2.3.8. New BLM definition: "Exploratory well" – Recommend adding a definition of exploratory well for regulatory certainty.

The Proposed Rule uses the term "exploratory well" in a number of provisions, yet includes no uniform definition of exploratory well. Varying treatment of exploratory wells under different sections lacks reasoned justification, does not provide clear standards that operators can follow, and can lead to regulatory uncertainty. For example, the Proposed Rule includes provisions for exploratory coalbed methane well dewatering under Section 3179.4(b)(5), but all coalbed methane wells require dewatering. In that instance, we recommend separating out exploratory wells subject to this definition as an additional provision, as well as revising Section 3179.4(b)(5) to include all coalbed methane well dewatering.

Subject to any conforming BLM changes, we recommend adding the definition of "exploratory well" under NMAC Section 19.15.27.7(G) to any final rule. We also recommend specific

language under those applicable sections relating to exploratory wells (i.e. Section 3179.4(b)(5) and Section 3179.103).

Recommended language:

Exploratory well means a well located in a spacing unit the closest boundary of which is two miles or more from:

1. The outer boundary of a defined pool that has produced oil or gas from the formation to which the well is or will be completed, and
2. An existing gathering pipeline.

2.4. Section 3179.4 – Determining when the loss of oil or gas is avoidable or unavoidable.

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

While we understand BLM's desire to reduce Sundry Notices for flaring, we reiterate that BLM must continue to approach unavoidably lost gas consistent with BLM's authority and established practice, and to consider individual circumstances in lieu of inflexible blanket numbers. We are amenable to eliminating the need for Sundry Notices for levels of flaring deemed per se unavoidable. However, proposed Section 3179.4(b) adopts far too narrow a view of unavoidably lost gas. Rather, BLM should include additional categories of unavoidable loss that reflect likely situations encountered during onshore operations and that are not otherwise covered under the proposed list of 14 operations or sources.

As such, we recommend that the any final rule include language allowing BLM to consider requests for additional unavoidable loss determinations beyond those listed under proposed Section 3179.4(b) and the proposed provisions cross-referenced therein. We also recommend a revised standalone definition of "avoidably lost" in Section 3179.4(c).

2.4.2. Section 3179.4(b) -- Recommend addition of unavoidable loss from defined exploratory wells and clarification for coalbed methane wells.

The Proposed Rule's list of 14 operational processes resulting in "unavoidably lost" gas includes "exploratory coalbed methane well dewatering." But as discussed above, based on our members' experience, all coalbed methane wells require dewatering, and the language should not be limited only to exploratory coalbed methane wells. Separately, the Proposed Rule omits unavoidably lost gas where operators have taken reasonable and prudent steps to prevent undue waste in certain operations involving exploratory wells. As discussed above, BLM already contemplates caveats for certain exploratory wells, and we simply request that BLM provide a consistent approach for including unavoidable loss from certain exploratory wells as defined per our recommended language reflecting New Mexico rules.

2.4.3. Section 3179.4(b) -- Recommend additional clarification on royalty-free "unavoidably lost" gas.

As discussed throughout our comments, the guiding rule for determining "avoidably lost" gas that is subject to royalties should be based on operator negligence or failure to follow the reasonable and prudent operator standard. Within those parameters, the list of operations and sources is helpful in delineating types of operations that may result in "unavoidably lost" gas or oil, but warrants supplementation and clarification based on our industry experience.

The Proposed Rule omits force majeure events, from which any lost gas is inherently unavoidable. Moreover, such force majeure events might not qualify as "emergencies" as defined in the Proposed Rule and the IRA, which are limited to 48 hours. Accordingly, we recommend adding a separate category to proposed Section 3179.4 for force majeure events.

Where a reasonable and prudent operator is unable to meet pipeline quality specifications and therefore is unable to send that gas to a sales line, the operator 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 H_sS content, oxygen levels that exceed specification, and low heating value generally caused by a high CO_2 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 recommend below language for the above circumstances under Section 3179.4(b)'s list of operations and sources from which lost gas is unavoidably lost.

2.4.4. Section 3179.4(c) – Recommend revised, standalone definition of "avoidably lost" consistent with the established MLA reasonable and prudent operator standard.

At present, the Proposed Rule reflexively defines "avoidably lost" gas simply as any loss of gas that BLM does not automatically deem unavoidably lost. That definition is unhelpful and inconsistent with established legal standards as explained above. Rather, avoidable losses should be defined as caused by operator negligence or imprudent operations. Accordingly, we recommend below a standalone definition of "avoidably lost" based on the MLA.

2.4.5. Section 3179.4 -- Recommended Revisions.

> 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) Coalbed methane well dewatering;
(6) Exploratory wells as defined in § 3179.3;
(7) Emergency situations, subject to the limitations in § 3179.105;
(8) Normal operating losses from a natural-gas-activated pneumatic controller or pump;
(9) Normal operating losses from a storage vessel or other low-pressure production vessel that is in compliance with § 3179.203 and § 3174.5(b);
(10) Well venting in the course of downhole well maintenance and/or liquids unloading performed in compliance with § 3179.204;
(11) Leaks, when the operator has complied with the LDAR requirements in §§ 3179.301 and 302;
(12) Facility and pipeline maintenance, such as when an operator must blow-down and depressurize equipment to perform maintenance or repairs;
(13) 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;
(14) 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;
(15) 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;
(16) Flaring of gas that does not meet pipeline specifications;
(17) Force majeure events; or
(18) BLM-approved requests for other operations or sources not otherwise covered under this paragraph.

(c) Lost oil or gas that is not "unavoidably lost" as defined in paragraphs (a) and (b) of this section is "avoidably lost" when (i) the loss of produced oil or gas occurred without BLM's prior authorization, approval, ratification, or acceptance, and (ii) BLM determines that such loss occurred as a result of (A) negligence on the part of the lessee or operator, (B) the failure of the lessee or operator to take all reasonable measures to prevent and/or to control the loss, or (C) the failure of the

lessee or operator to comply fully with the applicable lease terms and regulations, appropriate provisions of the approved operating plan, or the prior written orders of BLM, or (4) any combination of the foregoing.

2.5. Section 3179.6 – Safety

2.5.1. Section 3179.6 – For continuity, rename this section "Venting Limitations" per the identical 2016 Rule provision.

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.

2.5.2. Section 3179.6(b) – Request deletion as unjustified under MLA authority with regards to automatic ignition system requirement and immediate assessment of monetary fine.

BLM is re-proposing the same regulatory text for this section that was rejected in federal court as an impermissible air quality regulation.[67]

The most problematic aspect of BLM's proposal is paragraph (b) mandating automatic ignition systems on pain of BLM immediate assessments of $1,000 per day for each flare that is not continuously lit. In addition, the requirement of a continuously burning pilot when other alternatives are available creates unnecessary waste and additional emissions. This proposal appears to be an air quality regulation beyond BLM's waste prevention authority. 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.

2.6. Section 3179.7 – BLM properly removed gas capture percentage requirements. BLM should make conforming edits consistent with recommended definitional revisions.

As explained in our General Comments above, we agree with BLM's abandonment of its prior capture percentages approach from the correspondingly numbered section of its 2016 Rule. At this time, no more stringent approaches need to be considered or added to the Proposed Rule or applicable state or EPA rules. With that said, as further discussed in our comments, the Proposed Rule's approach based on fixed time and volume limits for unavoidably lost gas requires revision consistent with BLM's prior stated reasons for rejecting that approach from the proposed version of its 2016 Rule, including to "provide operators with more flexibility to

[67] *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.").

take better account of variable conditions on different leases, units, and communitized areas in different parts of the country."[68]

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).

2.7. Section 3179.8 – Oil-Well Gas.

As explained throughout our general comments and comments on other proposed provisions, hard, preset limits on unavoidably lost gas are contrary to the established concept of unavoidably lost gas, which still endures today. Nonetheless, dovetailing from proposed Section 3179.4(b)(12), the Proposed Rule establishes arbitrary monthly limits on oil-well gas royalty-free flaring due to pipeline capacity constraints, midstream processing failures, or "similar events" that prevent produced gas from being transported through the connected pipeline which are beyond an operator's control. BLM proposes to set those limits at 1,050 Mcf per month, per lease, unit, or CA. Any additional flaring is automatically deemed avoidably lost and subject to royalty. And for ongoing flaring after three consecutive months at more than 4,000 Mcf per month, BLM proposes potentially additional enforcement measures including shut-in. BLM should substantially modify this provision.

2.7.1. Section 3179.8(a) & (b) – Volume limits of 1,050 Mcf or 4,000 Mcf are arbitrary and capricious and practically unreasonable.

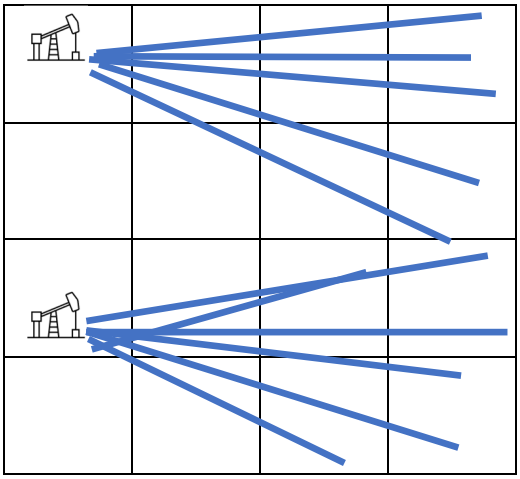
BLM's proposed limits in this Section are much too low, constituting in some instances mere minutes of flaring. BLM has furnished neither sufficient support for its calculations or assertions of the extent of covered flaring operations, nor sufficient time for full technical review and comment thereon. And as discussed above, these limits improperly deem any additional flaring as "avoidable . . . without determining whether a reasonable and prudent operator would, given the circumstances, capture and market the gas."[69] The only justification for this limitation is that BLM now believes case-by-case evaluations are not appropriate and could result in field-wide flaring, and the 1,050 Mcf royalty-free flaring limit would only apply to 20% of the ONRR reported flared volumes.[70] Neither of these explanations is sufficient

[68] 2016 Rule at 83,024.
[69] *Wyoming*, 493 F.Supp. 3d at 1074.
[70] Proposed Rule at 73,603.

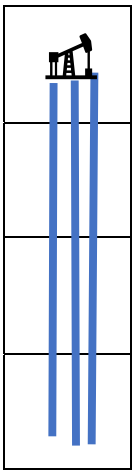
justification for such a low limit that could be only minutes of flaring due to a gathering limitation.

Exacerbating this problem, rather than on a per-oil-well basis, the Proposed Rule applies these same limits indiscriminately to variously sized and configured operations on a lease, unit, or CA basis. That is, the proposed thresholds of 1,050 Mcf per month and 4,000 Mcf per month for 3 consecutive months apply the same to leases, CA areas, and units. However, development on a leasehold, CA, or unit basis is very different, and the Proposed Rule's limits reflect no consideration of the number of development wells within 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 15 or more wells developing a unit. Yet, each total operation will be subject to the exact same flaring thresholds, regardless of the development footprint. The Proposed Rule also does not consider separate participation agreements within a unit. Thus, units will likely be at greater risk for shut-in, requiring a shut-in of substantially more wells.

Here is a further illustration of this issue. In a federal unit, the unit is the agreement number used for royalty reporting to ONRR. A unit, however, contains multiple pads, and in this example has around 10 wells. (This would notably be a very small unit for BLM.) All development from these wells is dedicated to the same midstream agreement. Under the Proposed Rule, these wells collectively would be subject to a royalty-free flaring limit of 1,050 Mcf per month. And if the wells collectively flare more than 4,000 Mcf per month for three months in a row, all 10 wells could be subject to curtailment or shut in. If operators flare 4,000 Mcf in a month from each well due to a midstream outage, the unit flaring would far exceed the 1,050 Mcf threshold. For larger units with over 30 wells, the threshold could even more easily be exceeded. 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 oil production.



In comparison, a standalone lease that is developed by three wells is subject to the exact same flaring limits as the larger unit. In the below example, three wells with production reported to ONRR using the lease number are subject to royalty-free flaring of 1,050 Mcf per month collectively, and are subject to possible curtailment or shut-in if the wells collectively flare more than 4,000 Mcf per month for 3 months in a row. Given their configuration and operational circumstances, these wells can flare significantly more than wells dedicated to CAs and units with more development.



Also, it is significantly less likely that less developed leases and CAs will be subject to curtailment or shut-in. However, this creates an adverse incentive for operators to drill fewer wells per CA and unit, potentially stranding reserves and utilizing greater surface space by creating more CAs with fewer wells to secure clearer operational certainty that wells will have less risk of shut in when there are midstream upsets. This result does not serve BLM's goal of reducing waste or minimizing operational surface footprints. Applying the exact same flaring limits to units, CAs, and individual leases therefore is arbitrary.

Nor can BLM unilaterally order shut-in or curtailment of wells on tracts including state or private interests. BLM recognizes as much in proposed Section 3179.8(c) and corresponding preamble text. That recognition is consistent with the District of Wyoming's findings as well.

Finally, the Proposed Rule does not specify when or under what conditions a shut-in or curtailment order will terminate. That omission raises due process concerns, and BLM should address it in any final rule.

2.7.2. Section 3179.8(b) – Recommend alternative limit that adheres to longstanding NTL-4A time limits.

If BLM elects to retain numeric limits on flaring specifically from wells connected to pipelines, we suggest an alternate and more workable 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, without the need for a Sundry Notice. This 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.

2.7.3. Section 3179.8(b) and (c) – Recommend deleting "unreasonable and undue waste."

As discussed above, BLM should delete the unnecessary and confusing term "unreasonable and undue waste" wherever it appears in the Proposed Rule, including in Section 3179.8. Irrespective of the Proposed Rule, where a lessee commits undue waste, BLM can initiate enforcement pursuant to its statutory authority.

2.7.4. Section 3179.8 – Recommended Revisions.

§ 3179.8 Oil-well gas.

(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, <u>for no longer than 24 hours per event</u>~~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. For additional flaring due to pipeline capacity constraints, midstream processing failures, or other similar events that prevent produced gas from being transported through the connected pipeline, operators may pay royalty or may demonstrate to BLM that the gas is not avoidably lost for the purposes of §§ 3179.4(b)(12), 3179.4(c), 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, t~~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 committed undue waste~~reported flaring in excess of 4,000 Mcf 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.

2.8. Section 3179.9 – Measuring and reporting volumes of gas vented and flared.

BLM states that it seeks to improve NTL-4A; yet, this proposed section is a significant departure from longstanding regulations 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 considered based on industry standards or approved by BLM.

The Proposed Rule would still allow operators the option 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 (35 Mcfd) flaring and require such measurement to be performed using an orifice meter.

We support BLM continuing to allow the option to estimate or measure for most actions. But for the newly created "high-pressure flare" category, we find the 1,050 Mcf/month to be arbitrary and lacking reasoned justification.[71] As a baseline, the high-pressure flare definition is tied to the types of vessels the flare is connected to, and not to a volume limit. As such, not every flare with a flow rate above 1,050 Mcf/month would be considered a high-pressure flare. Also, this limit appears to be the same as the 1,050 Mcf monthly limit under Section 3179.8, or it could have been derived from BLM's measurement rule under Subpart 3175 which prescribes a minimum 35 Mcf/day for low-volume FMPs that when multiplied by 30 days appears to translate to a 1,050 Mcf/month minimum limit.

Otherwise, no other explanation is provided except that the preamble notes that operators would be required to use an orifice meter for any flare that is flaring at a rate of 1,050

[71] See also our discussion relating to Sections 3179.3 and 3179.8 of the Proposed Rule.

Mcf/month or higher, and that the meter would be required to conform to the 43 Subpart 3175 requirements for low-volume FMPs.[72] Nearly all high-pressure flares are safety devices that are designed to immediately relieve pressure to prevent equipment damage or rupture. These devices are also intermittent in use, and thus one event a year could exceed this low volume threshold. We ask that this proposed limit be removed and replaced with a modified definition of high-pressure flare that reflects industry practice and standards and takes technical feasibility concerns into account.

We also encourage BLM to reconsider Section 3179(b) given the critical issues of safety that we foresee with mandating orifice meters alone without consideration of any other alternative for measuring flaring volumes 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 flares by orifice meters only.

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

2.8.1. Section 3179.9(a) – Recommend excluding measurement and reporting requirements for "de minimis" volumes of gas vented from wells, facilities, and equipment.

The technical and practical issues relating to the venting of gas are different from flaring of gas. Reasonable consideration should be made for not requiring the measuring, estimating, or reporting of "de minimis" (i.e., very small) volumes of gas that are vented from wells, facilities, or equipment as part of reasonable and prudently managed operations. For example, bleeding down casing pressure; meter recalibration, repair, or replacement; and a suite of other routine maintenance, inspection, or testing activities all potentially require venting of very small volumes of gas that would not fall within BLM's obligations to prevent undue waste and to manage and collect royalties.

Yet, the Proposed Rule's language applies reporting requirements to "**all** volumes of gas vented . . . " (emphasis added). That language appears to leave no room for flexibility even where accurate estimates and reporting are infeasible, or where there is little or no benefit to be gained from the reporting of such de minimis quantities. Our members are also concerned that this broad language would result in uneven enforcement actions and unintended consequences for the operators that are diligently and prudently operating their facilities.

[72] *Id.* at 73,604.

We recommend clarifying language that provides the following: de minimis releases due to normal operation of equipment intended to vent as part of normal operations are not subject to the requirements of this section.

We propose leaving the term "de minimis" undefined but to be interpreted within the context as it is commonly applied for very small releases in the oil and gas industry for these types of operations. We recommend applying the term "de minimis" within the prudent operator and negligence standards. That is, volumes that are vented due to the operator's negligence or operator's failure to take prudent and reasonable steps as part of normal operations would not be considered de minimis.

As an additional point, we are aware that BLM previously was asked to exclude "unavoidably lost" gas from this set of measurement, estimation, and reporting requirements, and BLM in its previous response to comments declined stating that "it is important for both the operator and the BLM to have an accurate understanding of the total quantity of gas that is being flared."[73] To be clear, we are asking not for de minimis exclusions as related to flaring, but instead for BLM to consider excluding de minimis volumes of gas that are vented as part of routine operations. We provide recommended language below.

2.8.2. Section 3179.9(b)(1) – BLM must consider safety risks associated with BLM prescribing orifice meters.

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

For starters, this requirement 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, but hinges on a volume limit of 1,050 Mcf monthly. 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.

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 orifice plate damage or 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

[73] 2016 Rule at 83,053.

the flare stack when a flare event sweeps out the liquids. Neither outcome is desirable to either BLM or the operator. (Even a non-sloped flare will likely have liquids accumulate in front of the plate leading to measurement error and corrosion of the flare line (i.e. bias).)

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 members' experience shows that an orifice meter struggles at 10:1.

2.8.3. Section 3179.9(b)(1) – Orifice meter requirement for high-pressure flares must be revised to allow the use of any measuring equipment that conforms to the most current edition of API Manual of Petroleum Measurement Standards Chapter 14.10, Measurement of Flow to Flares (API MPMS 14.10).

As discussed above, a one-size-fits-all approach that BLM is contemplating is unreasonable given the underlying safety concerns as well as all the practical operational considerations. BLM should allow metering devices within industry standards, such as thermal mass meters, ultrasonic meters, or other technologies that provide verifiable measurements for high-pressure flares.

Most high-pressure flares, as that term is commonly understood to mean in the industry, are safety devices designed to instantaneously relieve pressure from a facility when an upset occurs 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 rates. As discussed above, 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 within 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. The New Mexico venting and flaring of natural gas rule in fact references the above API standard for flare measurement. [74]

As such, 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 that conforms to the industry standard relating to the measurement of flow to flares—API MPMS Chapter 14.10. It is critical that the regulatory language expressly provide this optionality, rather than uniformly prescribe orifice meters. It

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

would be insufficient for BLM to rely on discretionary departure or other authority that would place the burden on operators to justify using a different method in every case where the operator believes 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.

2.8.4. Section 3179.9(b)(5) – Uncertainty requirement and all other measurement equipment related to high-pressure flares should conform to API MPMS 14.10 instead of inapplicable requirements pertaining to standards for low FMPs.

Corresponding to our recommendation above, we also recommend that all technical provisions related to metering equipment be tethered to 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 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.[75] 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.

For your consideration, we also attach a meter uncertainty evaluation that a member company's measurement subject matter expert prepared to demonstrate the uncertainty range of an orifice versus a linear meter. See Attachment 3. The demonstration indicated that based on the projections run, the overall uncertainty on the year's total volume from the orifice meter was 6.32 percent, which is outside the 5 percent range, whereas for the linear meter the overall uncertainty is within the 5 percent range. These calculations further support our technical concerns related to orifice meters and provide additional supporting evidence for BLM to consider in adopting any final rule.

[75] Proposed Rule at 73,604.

As such, we recommend, at a minimum, that Section 3179(b)(2) be removed as related to orifice meters specifically, and that Section 3179(b)(5) and other provisions be revised so that the above-referenced API Standard applies and governs in the event of any conflict with BLM regulations.

2.8.5. Section 3179.9(b) – Recommend extending compliance timeline to 1 year.

The Proposed Rule provides that an appropriate meter that must comply with the measurement requirement relating to a high-pressure flare must be installed at all high-pressure flares within 6 months after the effective date of the final rule.

Requiring the installation of metering devices on existing facilities within 6 months does not take into account a number of practical and technical considerations, including adding devices to ongoing operations in a safe and prudent manner. As is, the RIA estimates that 968 meters would have to be installed in the first year, and that omits uncertainties associated with that estimate which we believe is vastly underestimated.[76]

Of course, if BLM proceeds with our recommendation to allow operators to install metering devices per the industry standard rather than requiring one particular problematic metering device, there would be more options available on the market both for procuring any necessary equipment and for engaging services for appropriate planning, designing, and implementation. Regardless, 6 months is too short. We recommend at least one year after the effective date of any final rule, and even that is challenging.

2.8.6. Section 3179.9 – Recommended revisions to the measuring and reporting section.

[See also above recommended revision to proposed Section 3179.3 definition of "high-pressure flare."]

§ 3179.9 Measuring, estimating, and reporting volumes of gas vented or flared.

(a) The operator must measure or estimate ~~all~~ volumes of gas vented or flared from wells, facilities, and equipment on a lease, unit PA, or communitized area and report 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). De minimis releases due to normal operation of equipment intended to vent as part of normal operations are not subject to this section.

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

[76] RIA at 36.

(1) Flaring from all high-pressured flares must be measured by ~~orifice meters~~equipment that conforms to API Manual of Petroleum Measurement Standards Chapter 14.10, Natural Gas Fluids Measurement -- Measurement of Flow to Flares, Second Edition, December 2021 (API MPMS 14.10). 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 orifice plate for the meter must be pulled and inspected at least once a year.~~

(2~~3~~) The meter must be verified at least once a year.

(3~~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 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.

(4~~5~~) Measurement at the high-pressure flare must achieve an overall measurement uncertainty that conforms to API MPMS 14.10.

(5~~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, Section 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 at the flare 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.

2.9. Section 3179.11 – Incorporation by Reference.

2.9.1. Section 3179.11(a) – Generally support the incorporation of industry standards as regulatory requirements.

We are supportive of incorporating industry standards as appropriate, that become regulatory requirements for the purposes of compliance with this Proposed Rule. Industry already follows diligent standards for its operations. Industry standards allow BLM to rely on standards that meet technical and safety standards being utilized consistently across industry.

Thus, where possible, we encourage BLM to rely on industry standards specifically applicable to flaring and venting issues and related concerns rather than relying on standards that may not be applicable or are cobbled together from other rules to create a new subset of "standards" that are not developed by stakeholders with safety or technical expertise.[77]

2.9.2. Section 3179.11(a) – Given our recommendation relating to Section 3179.203(c) to remove the unnecessary compositional analysis requirement for certain storage tanks, the Proposed Rule's incorporation by reference of its two identified industry standards related to sampling are not needed to further the purpose of that section.

We support 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.[78] 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 VRU.[79]

[77] See also Section 3179.9 comments.
[78] Proposed Rule at 73,604.
[79] *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.

2.9.3. Section 3179.11(c) – Given our recommendation relating to Section 3179.9(b) to require metering requirements to conform to an industry standard, recommend 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.[80]

Based on our comments and recommendations on measuring devices related to flaring in Section 3179.9, we recommend the following addition, and recognize the need for additional IBR approval which we request here also.

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

2.9.4. Section 3179.11 – Recommended Revisions.

§ 3179.11 Incorporation by Reference.

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 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.

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

(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 Midsteam 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")

(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]

2.10. Section 3179.12 – New prescriptive language requiring operators to use all reasonable precautions to prevent waste is unnecessary and should be removed.

This proposed provision imports the MLA's "reasonable precautions to prevent waste" term. 30 U.S.C. § 225. We have no issue with BLM's regulations mirroring that statutory term. However, the regulation itself is devoid of substance or guidance, or grounding in BLM's authority. See our general comments on the applicable reasonable and prudent operator standard. BLM, like operators, should continue to adhere to this standard.

Instead, proposed Section 3179.12 would manufacture open-ended BLM discretion to prescribe more flaring limits divorced from proper considerations. Under paragraph (d), BLM may mandate such measures based on any "factors." Whatever BLM at any given point in time might perceive as "advances in technology and changes in industry practice" likely would not make losses of gas stemming from weather, equipment failures, or most gathering and gas processing interruptions any less unavoidable.

Moreover, under paragraphs (b) and (c), BLM may render such prescriptions when and however it chooses in the context of deciding APDs, without further notice and comment rulemaking to obtain stakeholder input on the propriety of measures that BLM may be considering. That APD-specific approach contradicts BLM's blanket approach to defining unavoidably lost gas regardless of individual circumstances. It also raises the risk of inconsistent treatment of

similarly situated operators, which is contrary to the requirements of the APA. What is more, BLM in paragraph (c) asserts unconstrained authority to undertake "additional measures" long after an APD is approved and operations are underway, even where an operator is in full compliance with the terms of its APD. Doing so would undercut regulatory stability and raise due process concerns. Our members need permitting certainty in making long-term investment decisions for key energy projects, and arbitrary "reasonable measures" that can open up APDs for additional onerous requirements at the discretion of BLM are deeply concerning.

Because proposed Section 3179.12 is at best unnecessary, and at worst arbitrary, capricious, and vague, BLM should remove it from any final rule.

3.0 Flaring and venting gas during drilling and production operations.[81]

3.1. Section 3179.102 – Well completion and related operations.

3.1.1. Sections 3179.102(a) and (b) – Recommend 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."[82] 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 royalty-free flaring limits.

Amongst broad assertions, BLM states 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.[83] These are overgeneralized statements for an entire segment of industry that ranges in size and processes and that is subject to numerous factors and impediments outside operators' control.

[81] We have no comments as related to Section 3179.101.
[82] Proposed Rule at 73,605.
[83] *Id.*

Based on our members' extensive experience, while some operators may be using sand separators to enable new wells to flow through permanent production facilities early in the fracture flowback process, 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 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, if BLM proceeds in this direction, we recommend that BLM at a minimum should revert to a 20,000 Mcf royalty free limit as recommended in the 2016 Rule for both new completions and existing completions for refractured wells where a well is connected to a gas pipeline. It is important to add that for all affected facilities, EPA NSPS Subpart OOOOa has required capture of all flowback gas from oil wells once the flow can be turned to a separator.[84] This approach is known as reduced emissions completions.

3.1.2. Section 3179.102(a) – Recommend clarification of "gas that reaches the surface."

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

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

3.1.3. Section 3179.102 – If increases in limits are not added as requested, recommend 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 Section 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.

[84] 81 Fed. Reg. 35,898 (June 3, 2016)

3.1.4. 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.~~

3.2. Section 3179.103 – Initial production testing.

3.2.1. Section 3179.103(a) – Recommend BLM allow for royalty-free flaring during initial well evaluation test for 30 days or 20,000 Mcf of gas (whichever occurs first) subject to certain extensions of time or increases in volume limits.

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."[85] Yet, beyond this belief and a label of "liberal limits," no further rationale is provided for lowering the limits.

We recommend BLM continue to allow for royalty-free flaring during initial well evaluation test for 30 days or 20,000 Mcf of gas (whichever occurs first) subject to extensions of time or increases in volume limits per BLM's proposed Section 3179.103(b)-(d) and our recommended language below.

3.2.2. Section 3179.103(a)(1) and (a)(4) – Recommend 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

[85] Proposed Rule at 73,605.

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.

We appreciate the language from the 2016 Rule in response to comments that allows BLM to increase the limit for flaring royalty-free by an additional 30,000 Mcf for certain exploratory wells. However, that provision, or allowing BLM to add more time under subsections (b) and (c), are negated if oil production (i.e., sale of oil per BLM) has been deemed to begin. 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 permanent facility tank or to a pipeline, can be encountered early on. This oil will be 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 completing the production testing 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.

3.2.3. Section 3179.103(c) and (d) – Recommend corresponding changes as part of our recommendation to include a definition of "exploratory wells."

As discussed above under proposed Section 3179.3 (Definitions), we recommend a consistent definition of exploratory wells rather than different and varying uses of the term. Here, BLM should delete the explanatory language relating to exploratory wells in proposed Section 3179.103(c), and refer to an explicit definition of exploratory wells which offers more consistency for BLM and greater regulatory certainty for operators. We recommend the well-established definition as used in New Mexico. Also, under proposed Section 3179.103(d), we recommend separating out coalbed methane wells from exploratory wells.

3.2.4. 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;~~

~~(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 a~~n exploratory~~ coalbed methane well, or the initial testing of an exploratory 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.

3.3. Section 3179.104 – We appreciate BLM adhering to NTL-4A requirements for subsequent well tests.

We support the time limit from longstanding practice as well as the additional flexibility provided allowing operators to request longer test periods beyond 24 hours through a Sundry Notice.

3.4. Section 3179.105 – The Proposed Rule's delineation of emergencies accords with the IRA.

Notwithstanding our overall concerns based royalty-free flaring concepts, we generally support BLM proposed changes in this provision, including examples of what does not constitute an emergency situation to include recurring failures within a single piece of equipment. The 48-hour duration for emergencies aligns with the IRA.

BLM should expressly include severe weather events and disasters within any final rule's scope of emergency situations.

Recommended language:

(a) An operator may flare or, if flaring is not feasible due to the emergency situation, vent gas royalty-free under § 3179.4(b)(6) of this subpart for no longer than 48 hours during an emergency situation. For purposes of this subpart, an ''emergency situation'' is a temporary,

infrequent, and unavoidable situation in which the loss of gas is necessary to avoid a danger to human health, safety, or the environment. Examples of an "emergency situation" for purposes of royalty assessment include, but are not limited to, a severe weather event or natural disaster.

4.0 Gas flared or vented from equipment and during well maintenance operations.

4.1. Section 3179.201 – Remove this section entirely and defer to EPA's current and pending NSPS Subparts OOOO, OOOOa, OOOOb, and OOOOc requirements relating to controlling emissions from pneumatic controllers or pneumatic diaphragm pumps.

We appreciate the streamlining of the prior two sections in the 2016 Rule into 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 in New Mexico that govern this very set of equipment. Specifically, the EPA's existing and pending rules and New Mexico's rules require eliminating certain existing and new gas-powered pneumatics under varying compliance timelines; and thus BLM's proposal to replace high bleed pneumatics with low bleed within one year of this rule's effective date conflicts with these environmental rules' requirements relating to pneumatic equipment.

In fact, the oil and gas industry has already taken active steps to control emissions from pneumatic equipment in its operations and is continuing to evaluate and implement new controls as feasible. This includes industry compliance with the NSPS Subpart OOOO rule where EPA adopted rules requiring all pneumatic controllers at certain oil and natural gas facilities constructed, modified, or reconstructed after October 15, 2013, to be low-bleed, and in essence eliminating high-bleed pneumatics.

And given EPA's current and pending regulations establishing NSPS for the Oil and Natural Gas Sector, as well as regulations of other states such as New Mexico, 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.[86]

These efforts by EPA have the intended purpose of reducing the loss of natural gas from these sources, which provide "co-benefits" that BLM also recognizes for federal and Indian leases.[87] 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

[86] 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
[87] RIA at 13.

little benefit while administrative costs will be high both for agencies and operators with onerous regulatory and economic burdens being placed on regulated entities.

Specifically, BLM's Proposed Rule would require operators producing more than 120 Mcf of gas or 20 barrels of oil per month to use low bleed (not to 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.

Meanwhile, current NSPS Subpart OOOOa regulates certain continuous bleed natural gas driven pneumatic equipment based on where the pneumatic controller is located.[88] 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.[89] 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.[90] 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 OOOOb includes pneumatic controller standards for all collections of natural gas driven controllers (intermittent and continuous bleed) with a VOC and methane emission rate of zero.[91] Exceptions are included for sites in Alaska where on-site power is unavailable but the exemptions from NSPS Subparts OOOO and OOOOa based on functional need are not included.[92] Exceptions also include emissions that are collected and sent to a sales line and self-contained pneumatic controllers.[93] Moreover, unlike prior NSPS Subpart OOOO regulations, EPA's proposed rule would include both continuous and intermittent bleed of gas from pneumatic controllers.[94]

There are also separate NSPS Subpart OOOOc rules being proposed which will serve to guide future state rulemakings to regulate existing sources and which will require updates from

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[88] 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.
[89] 86 Fed. Reg. 63,110, 63,178-63,179 (Nov. 15, 2021); 87 Fed. Reg. 74,703 (Dec. 6, 2022).
[90] RIA at 39.
[91] 87 Fed. Reg. at 74,755-74,756. These comments do not reflect the Associations' positions on EPA's proposed rules relating to NSPS Subparts OOOOb and OOOOc. 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.
[92] *Id.*
[93] *Id.*
[94] *Id.*

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.[95] 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 OOOOc 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 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 stating that "the BLM will maintain an awareness of developments in EPA's regulations and will make adjustments to the final rule as appropriate."[96]

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.

Alternatively, if this section is not removed, we ask that BLM explicitly exclude pneumatic controllers that function solely as an emergency shutdown device ("ESD"). This is consistent with operational practices as well as reflective of exemptions adopted by states such as New Mexico.[97] ESDs are designed to minimize consequences of emergency situations and, as such, are rarely activated and their emissions impact is minimal. However, their functional need is critical, especially where emergency situations such as a large change in pressure may trigger

[95] BLM Supporting Document: Venting and Flaring: State and EPA Regulations, August 2021.
[96] Proposed Rule at 73,599.
[97] For example, see NMAC 20.2.50.122(B)(4)(e) (Temporary pneumatic controllers that emit natural gas and are used for well abandonment activities or used prior to or through the end of flowback, and pneumatic controllers used as emergency shutdown devices located at a well site, are not subject to the requirements of Subsection B of 20.2.50.122 NMAC).

the need for an ESD and the only effective device is likely to be a pneumatic controller. In those types of emergency situations, no-bleed air or electric controllers are not sufficiently reliable.

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 1 YEAR AFTER THE EFFECTIVE DATE OF THE FINAL RULE].~~

4.2. Section 3179.203 – Oil storage **vessels.**

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 VRUs should be added to oil storage tanks based on technical and economic feasibility. We support BLM's overall approach and we recommend that no further provisions that limit operator flexibility be added to this section.

4.2.1. Section 3179.203 – Recommend changing the term "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 definition for "storage vessels" is derived from EPA's NSPS Subpart OOOO regulations, is overly broad, and is not appropriately targeted for BLM waste prevention. For example, the storage vessel definition includes produced water tanks from an emissions perspective. As written, this would require unnecessary sampling of all such produced water tanks.

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

4.2.2. Section 3179.203(a) – Recommend revisions to reflect reasonable and prudent operator standard for thief hatches to not be left negligently open and 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. § 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 C.F.R. subpart – 3163, Noncompliance, Assessments and Penalties.

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

4.2.3. Section 3179.203(b) – Support flexibility provided for additional VRU requirements which allow operators to demonstrate technical or economic infeasibility if unable to equip storage tanks with a VRU or other similar mechanism.

First, instead of mandating a particular type of equipment, we appreciate that BLM is considering challenges that operators may face and allowing for a process whereby operators have the option to demonstrate technical or economic infeasibility where an operator is unable to equip its storage tanks with a VRU or other similar mechanisms for storage tanks.

BLM explains that the Proposed Rule does not contain a definition or formula for determining economic feasibility for the purposes of this section and that it recognizes that the determination will depend on a variety of factors.[98] BLM further states that "flexibility does not indicate unrestrained discretion," and that if the BLM were to order an operator to install a VRU, it would follow traditional administrative law principles to explain its decision.[99]

We appreciate the process that the BLM is considering and we do not believe any additional definition is needed for specifying economic or technical infeasibility. However, we do ask that information provided by an operator to make its case should be given greater weight given an operator's expertise in the subject matter, and that the operator should be allowed to submit information as is reasonably available to demonstrate economic or technical infeasibility. In essence, the operator should be held to a reasonable standard, and not one where BLM's decision is arbitrary and capricious or where approval is unreasonably prolonged or withheld.

We also find that the one-year compliance timeframe is overly optimistic and does not take into account a number of implementation challenges that operators face. For starters, operators

[98] Proposed Rule at 73,607.
[99] *Id.*

will need to complete validations and feasibility analyses for VRUs. And then, if operators determine VRUs may be needed, timing for planning and implementation will also be needed for proper engineering analysis, closed vent system design, and receiving applicable certifications. Operators also have to build in time for procuring any needed equipment, as well as for assessing the need for potential rights of way and working on attaining any rights of way needed for electricity or increased pipeline capacity. Based on these factors, we believe that the proposed one-year compliance deadline is unreasonable. We recommend allowing for 3 years after the effective date, or alternatively, a 3 year phased approach that allows for adequate implementation time.

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

We support many of the provisions relating to oil storage tanks, including providing flexibility for operators to make technical or economic feasibility determinations on whether a vapor recovery unit should be required. But we believe there is no reasonable basis for additional annual compositional sampling requirements to demonstrate infeasibility of a VRU.

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. Furthermore, our industry experience indicates that the most important factors in an economic decision to install a VRU are the average gas rates, potential for oxygen ingress, tank pressure design, access to reliable electricity, and access to a low-pressure gas pipeline.

Instead, in situations where BLM has questions on the technical or economic analysis, and requires additional volumes as part of an analysis, we suggest allowing the use of "representative" sampling that mirrors industry's best practices for estimating tank volumes to avoid having separate books of record on gas lost and environmental emissions. Industry has guidelines and best practices to determine when samples are "representative" as opposed to using pin-point sampling at each emission source, which is not a sustainable or pragmatic approach. At the state level, this is a recognized and acceptable practice and there are robust parameters in place that can provide a reference point for BLM in terms of specific criteria for what constitutes a representative sample. An excellent example of such a guidance is Texas Commission on Environmental Quality's guidance on Representative Sampling Criteria.[100] These criteria recognize the importance of using information that is as accurate as possible in estimating emissions and hold operators to a high standard in terms of what can be deemed representative.

[100] TCEQ's Representative Analysis Criteria, Rev. 2/12. Available at: https://www.tceq.texas.gov/assets/public/permitting/air/NewSourceReview/oilgas/rep-analysis-criteria.pdfc.

Overall, we believe that industry should be allowed to utilize federal and state approved methods for calculating these volumes, which can include representative sampling and computational software to estimate volume lost at storage tanks, emission factors, or other calculations.

In addition, the analysis should be triggered based on changes that would warrant an increase in storage tank gas lost before updating the technical and economic analysis for VRUs. Changes to facilities operations, design or having significant well work/re-frac would be an appropriate and pragmatic trigger for performing a VRU variability analysis update rather than assuming there needs to be an annual analysis performed at all storage tanks.

Based on these reasons, 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. Recommended revised language is provided below.

Notwithstanding our core recommendation, if BLM were to proceed with the Proposed Rule language, at a minimum, BLM should only require such compositional sampling for flash gas estimates for oil storage tanks with over 15 barrels of oil per day average throughput as these low volumes are well below gas flowrates that would allow operation of a VRU. This volume is also consistent with the 6 tons per year emissions limits for NSPS Subpart OOOOa storage tank emissions which should already be screened for VOC controls.[101] This would eliminate an unnecessary burden to BLM and the industry since approximately 85 percent of the onshore wells on federal and Indian leases are classified as low production wells (i.e. marginal wells).[102]

4.2.5. 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 likely cost of $1500-3000 with labor and shipping. Also, these analyses are time intensive and usually take a minimum of a

[101] 40 C.F.R. § 60.5365(e).
[102] 2016 Rule at 83,029.

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.

4.2.6. 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 production and measurement operations. Upon discovery of a thief hatch that has been left open and unattended due to operator negligence, the BLM may initiate remedies for non-compliance, as appropriate, under 43 C.F.R. § 3163. ~~impose an immediate assessment of $1,000 on the operator~~.

(b) Beginning on [DATE ~~1~~3 YEARS AFTER THE EFFECTIVE DATE OF THE FINAL RULE], all oil storage tanks ~~vessels~~ must be equipped with a vapor-recovery system or other mechanism such as a low pressure flare that avoids the intentional loss of natural gas from the tank~~vessel~~, unless the operator determines that equipping the oil storage tank ~~vessel~~ with a vapor-recovery system or other appropriate mechanism is technically or economically infeasible.

(c) Notwithstanding Section 3179.203(b), where the BLM may reasonably require additional representative compositional analysis of production flowing to the storage tank, the following minimum requirements apply: ~~Where an operator 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 pressurized samples taken downstream of the last pressurized tank~~vessel~~ and upstream of ~~the last~~ pressure reduction (*e.g.,* a valve) prior to the oil flowing into the oil storage tank ~~vessel~~.

(2) The compositional analysis must show the expected emissions from the oil storage tank ~~vessel~~ at 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 tank~~vessel~~ at least 2 feet below the gas-liquid interface of the tank~~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).

(d) 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.

4.3. Section 3179.204 – Downhole well maintenance and liquids unloading.

4.3.1. Section 3179.204(d) – Reflecting industry's commitment to exercising reasonable diligence, skill, and care for the prevention of undue waste, no comment on the additional operator requirement during well purging.

Notwithstanding our overall arguments about royalty-free flaring, this proposed section's language reflects mostly the 2016 Rule and 2018 Rule language with a new provision relating to requiring a person on-site during well purging. We support these proposed changes to this section.

4.4. Section 3179.205 – Reflecting industry's commitment to exercising reasonable diligence, skill, and care for the prevention of undue waste, no comment on the additional operator requirement during well purging.

We believe that this provision reflects no substantive changes in current practices. We have no changes to this proposed section.

5.0 Leak Detection and Repair (LDAR).

5.1. Section 3179.301 – Recognizing LDAR programs under EPA and state requirements, we generally support BLM's more streamlined approach.

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) 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, (2) the reasons for which BLM deems the program inadequate, and (3) 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.

5.2. Section 3179.301(b) – Support submitting an on-time Sundry Notice describing an operator's LDAR program within 6 months if BLM accepts 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.

5.3. Section 3179.302 – Support this section on repairing leaks with no further revisions.

Our industry is committed to finding and repairing leaks diligently. We support the proposed provisions of this section and have no changes except to recommend streamlining the more detailed leak definition (i.e., removing parts (1)-(3)), which was added in response to comments to the 2016 Rule's more prescriptive LDAR program requirements, and is no longer applicable or necessary. (See recommended language under Definitions above.)

5.4. Section 3179.303 – Recommend deleting this section revising Section 3179.303(a) language as well as adding a new Section 3179.303(d) and other clarifying changes 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 under proposed Section 3179.303(b).

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) as revised with recommended revisions to include a new Section 3179.303(a)(6).

We also recommend deleting proposed Section 3179.303(b)(4), which requires the annual report to include the total number of leaks that were not repaired as of December 31 of the previous calendar year. We believe that the reporting requirements under the proposed Section 3179.303(b)(1)-(3) are sufficient in that those provisions already include keeping records on the number of leaks, the number of leaks repaired, and the dates of inspections and dates each leak was repaired. The additional cut-off date of December 31 seems arbitrary since information relating to leaks will be captured with on-site recordkeeping on an ongoing basis under proposed Section 3179.303(a)(1)-(5).

And as discussed above, given robust state programs in place and to avoid duplicative efforts, we recommend revising the proposed Section 3179.303(c) to allow operators to waive BLM's audio, visual, or olfactory ("AVO") documentation requirement where AVO checks are an acceptable method under a state's LDAR program.

5.5. Section 3179.303(b) – 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 or where AVO checks are an acceptable method under a state's LDAR requirements.

(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 program is sufficient to meet the BLM's requirements under Section 3179.303.

6.0 Section 3179.401 State or Tribal Variances.

6.1. Section 3179.401 -- We support State or Tribal 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."[103] BLM again has added the provisions for a state or Tribe to request a variance from the regulations under Section 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."[104] The same concerns apply to the Proposed Rule, and thus BLM should modify any final rule accordingly.

6.2. 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.

6.3. 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 applicable statutory authorities." This standard would more properly accommodate the potentially unique provisions of some Tribal oil and gas leases.

[103] 30 U.S.C. § 187.
[104] *Wyoming,* 493 F. Supp. 3d at 1066.

6.4. Section 3179.401 -- Support a process for MOU in addition to variances.

BLM seeks comment on the use of MOUs in lieu of state or Tribal variances.[105] The Associations believe that MOUs can serve as a complementary tool, but that BLM should preserve all options 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 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. As indicated by BLM, an MOU may also be appropriate to guide enforcement of state or Tribal regulations after a variance is approved, such that BLM ensures that its interpretation is in accordance with, and pursuant to consultation with, the relevant state or Tribe prior to any BLM enforcement action pursuant to those regulations.

6.5. Section 3179.401(d) – Support a more robust 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 providing 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.

6.6. Section 3179.401 – Recommended Revisions.

§ 3179.401 State or Tribal requests for variances from the requirements of this subpart.

(a)(1) At the request of a State Regulatory Agency (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

[105] Proposed Rule at 73,609.

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,~~ assur~~e~~ing appropriate royalty payments to the United States or to the beneficial Indian owners, and ensur~~e~~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) 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) 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). The State Director must state in writing the reasons for rescinding the variance.

(e) 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) If the BLM approves a variance under this section, 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) 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.

III. GENERAL COMMENTS ON LEGAL FRAMEWORK

In addition to our general technical comments and Section-by-Section comments above, the Associations and their members are concerned that some similar legal deficiencies identified in the vacated 2016 Rule apply to aspects of the Proposed Rule as well. As the Proposed Rule notes, the 2016 Rule was found both to exceed BLM's authority and to be arbitrary and capricious. The District of Wyoming held that the 2016 Rule "departs from BLM's historical interpretation of waste by conflating 'waste' with 'loss' of gas, rejecting economic considerations in determining waste, and disregarding the waste that would occur if oil and natural gas is left in the ground because wells are prematurely abandoned."[106] BLM and the Department of Justice, on behalf of the United States, made the same legal representations in multiple federal courts. The 2016 Rule also was found to overreach by, among other things, exercising the exclusive air quality purview of EPA and states, and regulating state and private mineral interests. We summarize our legal concerns with the Proposed Rule below. Several of our recommended revisions in the Section-by-Section comments aim to alleviate these concerns and place any final rule on a stronger legal footing.

1.0 "Undue waste" and "avoidable loss" are long-established legal concepts based on reasonable and prudent individual operations to which BLM must remain faithful.

Throughout its Proposed Rule and preamble, BLM expands the term "waste" and alters long-established statutory, regulatory, and contractual standards that distinguish "unavoidably" lost from "avoidably" lost gas associated with oil-well production. On that basis, BLM proposes universal caps and equipment limitations, and does not allow for its discretion to consider individual operational circumstances. But as the District of Wyoming found, "[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."[107] Departure from that standard is "not a permissible construction" of BLM's authority.[108] Those principles continue to bind BLM in this rulemaking.

The MLA was enacted to promote responsible development of federal mineral resources. Lessees are required to act as "prudent operators," exercise "reasonable diligence, skill, and care" in the operation of the lease, and take "all reasonable precautions to prevent waste of oil or gas developed in the land."[109] The MLA precludes only "undue waste."[110] As recently

[106] *Wyoming*, 493 F. Supp. 3d at 1075.
[107] *Wyoming*, 493 F. Supp. 3d at 1074.
[108] *Id.*
[109] 30 U.S.C. Section 225.
[110] 30 U.S.C. Section 187; *Wyoming*, 493 F. Supp. 3d at 1072 ("The MLA incorporates the 'prudent' operator standard through the provisions requiring lessees to exercise '*reasonable* diligence, skill, and care' in the operation of the lease and subjecting Federal leases to the condition that lessees will use 'all *reasonable* precautions to prevent waste of oil or gas developed in the land.'") (emphasis in original).

reaffirmed in court, an avoidably lost determination requires "giving [an] operator [the] opportunity to show "whether in fact it was economically feasible to market the gas."[111]

The MLA establishes a public-private leasing system for development of BLM-managed oil and gas resources onshore. It is blackletter law that an oil and gas lease is an enforceable contract between the lessee and the lessor. The object of the lease contract is the mutually profitable development of the lessor's mineral resources.[112] Under the MLA's prudent operator standard and the lease bargain, the lessee is not obligated to avoid all waste of lease resources, but must exercise reasonable diligence to prevent undue waste of the lessor's resources. Because the purpose of an oil and gas lease is to profitably develop the lessor's minerals, a "reasonably diligent" operator cannot be required to engage in unprofitable leasehold activities in the name of "waste" prevention. Thus, this legal issue and our concerns are not simply about "lessee profits" as the Proposed Rule's preamble frequently asserts.[113]

On the other hand, an imprudent operator that fails to expend reasonable efforts to capture and market production is negligent and commits undue waste. In general, 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.[114] 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.

For federal oil and gas leases, the MLA, existing BLM regulations in title 43 of the C.F.R., NTL-4A, and BLM oil and gas lease Form 3100-11 recognize and formalize these fundamental oil and gas principles relating to waste. BLM also has applied its waste regulations equally to federal and Indian leases.[115]

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

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[111] *Wyoming,* 493 F. Supp. 3d at 1073-74 (citing *Ladd Petroleum Corp*., 107 IBLA 5 (1989) and *Rife Oil Properties, Inc.*, 131 IBLA 357, 373-75 (1994)). The Proposed Rule only mentions *Ladd* once in passing, and does not cite *Rife* at all. Proposed Rule at 73,594.

[112] *Wyoming*, 493 F. Supp. 3d at 1072 ("Oil and gas leases -- including those between the federal government and its lessees – are intended to ensure *mutually profitable* development of the lease's mineral resources.") (emphasis in original).

[113] *E.g.*, Proposed Rule at 73,598.

[114] McDonald, Stephen L., Petroleum Conservation in the United States, An Economic Analysis, Johns Hopkins Press, 1971 (reprinted in 2011 by Resources for the Future), at 113-120 (providing illustrative definitions of prohibited waste).

[115] *Wyoming*, 493 F. Supp. 3d at 1063 ("The terms of the MLA and [the Federal Oil and Gas Royalty Management Act] make clear that Congress intended the Secretary, through the BLM, to exercise rulemaking authority to prevent the waste of Federal and Indian mineral resources and to ensure the proper payment of royalties to Federal, State, and Tribal governments.").

> 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.[116]

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 the 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 [the Federal Oil and Gas Royalty Management Act ("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.[117]

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 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.[118]

Under this statutory provision that postdated the MLA, if the lessee neither was negligent nor failed to comply with a specific regulatory requirement or BLM order, then the loss is unavoidable and not subject to royalty.

BLM's existing regulations for making unavoidable loss determinations are founded on the MLA and FOGRMA statutory principles. 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" in NTL-4A Sec. II.A, relate back to the prudent operation of the lease. The Interior Board of Land

[116] 43 C.F.R. Section 3160.0-5 (emphasis added).
[117] See *Wyoming,* 493 F. Supp. 3d at 1073.
[118] 30 U.S.C. § 1756.

Appeals ("IBLA") recently confirmed that 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*."[119]

Therefore, under the MLA, and as consistently implemented by BLM over decades, whether a loss of oil or gas is in fact "avoidable" or "unavoidable" has necessitated a case-by-case evaluation of the operator's prudent actions in light of the circumstances of the lease and a determination of whether recovering the otherwise lost production would be economic.[120]

This consistent application of the concepts of "waste" and "avoidably lost" has been reinforced by the IBLA. For example, the IBLA has reiterated 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*.'"[121]

Federal courts likewise have confirmed the context-specific unavoidable loss determination required by the MLA and both recent and historical case law. The District of Wyoming recognized that federal oil and gas leases ensure "*mutually profitable"* development and "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

[119] *Petro-Hunt, L.L.C.*, 197 IBLA 100, 102 (2021) (emphasis added and in original).
[120] See North Dakota Petroleum Council, SDR No 922-15-07 (Feb. 11, 2016).
[121] *Petro-Hunt*, 197 IBLA at 113 (emphasis in original, citations omitted); 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) (discussing the basis of BLM's authority to require compensation for venting and flaring and explaining BLM's rationale for allowing the operator to demonstrate that lost gas was not economically recoverable before requiring a royalty payment).

the lessor."[122] The District of Wyoming confirmed that "Congress enacted the MLA against this backdrop of consideration for operator economics."[123]

Thus, pursuant to longstanding IBLA and BLM interpretation and implementation, 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.[124] BLM's regulations have expressly recognized that if capturing and marketing the flared gas is uneconomic, then the gas is unavoidably lost.[125] Therefore, 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.[126]

2.0 The same individualized reasonable and prudent operator standard still governs unavoidably lost gas today.

Furthermore, no subsequent statute, including the 2022 Inflation Reduction Act ("IRA"), Public Law 117-169, expands the MLA's treatment of waste or Congress' understanding of unavoidably lost gas constituting the background against which the MLA was enacted. That includes the various statutes BLM cites in its preamble, most of which BLM also invoked in its vacated 2016 Rule.[127]

First, as discussed above, FOGRMA sets standards consistent with the MLA, and does not expand the universe of avoidably lost gas. Second, the MLA's "safeguarding of the public welfare" clause does not create broad authority that swallows the MLA's mandate against undue waste (in the same MLA section) or enable BLM to regulate air quality under the guise of waste prevention.[128] As the District of Wyoming found, "it is not a reasonable interpretation of

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[122] *Wyoming*, 493 F. Supp. 3d at 1072 (emphasis in original); see also *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).

[123] *Wyoming*, 493 F. Supp. 3d at 1072. Though the preamble also selectively cites to the Northern District of California's ruling vacating the 2018 Rule, even that court did *not* hold that BLM may *entirely omit* economic considerations in determining if flared gas is unavoidably lost. Proposed Rule at 73,598 (finding waste is not "limited to the *economics* of individual well-operators") (emphasis in original). In any event, the District of Wyoming's subsequent ruling on the 2016 Rule, the merits of which the California court expressly did not address, correctly interprets the MLA.

[124] *Petro-Hunt, supra; Wyoming,* 493 F. Supp. 3d at 1073-74; *Rife Oil Properties, Inc.*, 131 IBLA 357, 373-77 (1994).

[125] 43 C.F.R. Section 3162.7-1(a) (2013) ("[t]he operator shall put into marketable condition, *if economically feasible,* all oil, other hydrocarbons, gas, and sulphur produced from the leased land") (emphasis added); *Rife Oil Properties, Inc.*, 131 IBLA at 374; *Ladd Petroleum Corp.*, 107 IBLA 5, 8 (1989).

[126] See 30 U.S.C. Section 1756.

[127] Proposed Rule at 73,592.

[128] 30 U.S.C. Section 187.

BLM's general authority under the MLA to 'safeguard[] the public welfare' as empowering the agency to regulate air emissions, particularly when Congress expressly delegated such authority to the EPA under the [Clean Air Act]."[129] Third, the Federal Land Policy and Management Act ("FLPMA") "at its core . . . is a land use planning statute," and BLM's Proposed Rule here does not implicate land use planning but rather operations on existing or new leases within areas already leased or eligible for leasing.[130] FLPMA does not create flaring-related authority in BLM, but merely directs BLM to "provide for compliance with applicable pollution control laws, including State and Federal air, water, noise, or other pollution standards or implementation plans."[131] Fourth, the Proposed Rule cites statutes governing Indian lands, but neither discusses those laws nor squares its Proposed Rule with the unique provisions governing production on Indian lands. See our General Comments above on this topic.

Finally, the IRA continues, rather than alters, the MLA's mandates.[132] Under IRA Section 50263(a), royalties must be paid "on all gas produced, including all gas that is consumed or lost by venting, flaring or negligent releases through any equipment during upstream operations." However, subsection (b) provides three exceptions including "gas that is unavoidably lost." Thus, the IRA preserves the historical requirement that BLM must distinguish between non-royalty-bearing unavoidable losses and royalty-bearing avoidable losses. Nor did the IRA provide BLM an opportunity to re-invent the meaning of "unavoidable loss." When Congress relies on a term of art in adopting legislation, the meaning given to that term is its understood meaning at the time of enactment.[133] That is particularly true where the agency has historically implemented it in that manner.[134] Nothing in the IRA indicates a different understanding of "unavoidably lost" gas or fashions a blank slate for BLM to arbitrarily expand the meaning of this term through absolute time and volume limits, as opposed to a codification of historical practice.

Thus, the longstanding and well-understood regulatory distinction between unavoidable and avoidable losses, and the attendant standards for making that distinction embodied in BLM's current regulations, including NTL-4A, are what control the meaning of that term when implementing the statute. Although BLM has some discretion to alter its previous interpretation of "avoidable loss," and its regulations may have ancillary perceived benefits, its Proposed Rule must be adequately *independently justified* as waste prevention measures under

[129] *Wyoming*, 493 F. Supp. 3d at 1067.
[130] *Wyoming*, 493 F. Supp. 3d at 1063 n.16.
[131] *Id.*; 43 U.S.C. Section 1712(c)(8) (emphasis added); see also BLM Air Resource Management Program Manual 7300 Section .06.B. (2009).
[132] Moreover, the IRA only applies to leases issued after the August 22, 2022 date of enactment.
[133] See, e.g., *Wyoming*, 493 F. Supp. 3d at 1073 n.25 ("When phrases used in a statute are undefined, 'we look to the ordinary meaning of the term . . . at the time Congress enacted the statute.'") (quoting Supreme Court and Fourth Circuit, citations omitted); *Marathon Oil Co. v. Andrus*, 452 F. Supp. 548, 552-53 (D. Wyo. 1978) (invalidating former NTL-4).
[134] *Id.* at 1074 ("[W]hen [a court] must interpret an archaic statute, the historic practice of the agency that was created to help implement that statute can shed light on its meaning.") (quoting Ninth Circuit, citation omitted).

its MLA authority.[135] BLM's burden is heightened given its proposed departure from the broader concept of "unavoidable loss" as understood by Congress when enacting the MLA or as reflected by longstanding industry practice on both public and private lands.

3.0 Proposing immutable limits on "unavoidably lost" gas cannot wholly obviate BLM's obligation to determine whether a reasonable and prudent operator would, given its circumstances, capture, and market the gas.

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 the Proposed Rule's structure then fails to properly apply those distinctions, primarily by replacing necessarily fact-specific showings with across-the-board and arbitrary numeric volume and time limits on unavoidably lost gas. Moreover, certain of those limits are set at a level that deems most flaring a royalty-bearing avoidable loss. Notably, BLM itself rejected this approach from its proposed version of its 2016 Rule, but now has resuscitated it with further constraints and without adequate justification. To be clear, we raise these points not to condone unrestricted flaring, but to highlight BLM's overreach in the other direction by categorically disregarding the truly unavoidable nature of certain flaring that the Proposed Rule labels avoidable by default.

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).[136] It also acknowledges that "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.'*"[137] Therefore, only flaring that meets the statutory condition can be a royalty-bearing avoidable loss. But the Proposed Rule's one-size-fits-all approach for identifying "unavoidably lost" gas omits these important sideboards and inquiries.

Of particular concern to the Associations and our members is application of BLM'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 oil well 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. The Proposed Rule does not link such circumstances to operator negligence or regulatory noncompliance, and does not explain why flexibility to address such circumstances is unwarranted. Nor does it acknowledge lessees' own inherent interests in capturing and marketing as much gas as economically and technically feasible. At

[135] *Wyoming*, 493 F. Supp. 3d at 1067, 1069.
[136] Proposed Rule at 73,588.
[137] Proposed Rule at 73,592 (emphasis added).

base, the Proposed Rule just presumes that all flaring from connected wells is avoidably lost by setting a very small royalty-free limit of 1,050 Mcf per month, when it in fact may not be.

Thus, the same loss of gas from wells connected to a pipeline should not be automatically transformed from "unavoidable" at one time to "avoidable" at another time with no demonstrated change in lease conditions or operational circumstances. The 1,051st Mcf of flared gas in a given month should not transform from an unavoidable loss into a royalty-bearing avoidable loss, without consideration of the reasonableness or prudence of the lessee's operating circumstances. The limits should not be finalized also because, as explained above, the exact same limits arbitrarily would apply to a single well on a single lease or to a multi-well CA, where an operator could exceed 1,050 Mcf, or even 4,000 Mcf, in a matter of minutes or hours. Also, BLM does not address that the economic value of the monthly royalty-free flaring limit is minimal. 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 nowhere explains 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. Therefore, adopting Sections 3179.4(b)(12) and 3179.8 as proposed would be legally suspect under the MLA, FOGRMA, and the APA.

One of BLM's stated purposes for establishing a fixed threshold in proposed Section 3179.8 is to reduce the number of Sundry Notices to flare for BLM approval.[138] We concur that establishing a threshold for this purpose would be beneficial for BLM and likewise would benefit industry. However, flaring exceeding the established thresholds cannot be considered a *per se* "avoidable loss." Certain thresholds—particularly for well completions and flaring from wells connected to pipelines—are set arbitrarily low and do not reflect actual operational circumstances yielding unavoidably lost gas. Moreover, regardless of the value of any threshold, BLM in any final rule must include provisions permitting operators to submit a request for approval to flare above the established threshold, and grant those approvals where the operator demonstrates it meets the MLA's economic and reasonableness standards BLM currently applies under NTL-4A and its other existing regulations. Administrative convenience is an insufficient ground for BLM to disregard legally relevant criteria for unavoidably lost gas. Failing to provide that opportunity to satisfy such criteria subjects the Proposed Rule to the same concerns expressed in the 2016 Rule decision.[139] We are committed to working with BLM to make necessary revisions to support a reasonable and valid final rule.

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[138] See Proposed Rule at 73,598 ("In contrast to NTL-4A, this proposed rule would not allow operators to request that flared oil-well gas be deemed royalty-free based on case-by-case economic assessments.").
[139] *Wyoming*, 493 F. Supp. 3d at 1073-74 ("Thus, pursuant to DOI's longstanding interpretation and implementation of its MLA authority, whether a loss is deemed 'avoidable' (and therefore constitutes impermissible 'waste') has turned on 'whether it would have been economic [for the lessee] to market the gas

4.0 The Proposed Rule creates conflicts and uncertainty with other BLM regulations unaltered by the Proposed Rule.

The Proposed Rule is incomplete and risks creating inconsistency with other existing and unmodified BLM regulations.

First, despite preamble language that says the Proposed Rule rescinds NTL-4A, its regulatory provisions do not expressly do so. NTL-4A has the force of regulation, and BLM should make any revocation express.

Second, the Proposed Rule does not mention or reconcile BLM's existing regulatory definition for "Waste of oil or gas." That term "means 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."[140] If flared gas is not "waste" to begin with, then it cannot be "unreasonable or undue waste" or "avoidably lost" under the Proposed Rule.

Third, the Proposed Rule does not mention or reconcile the existing regulatory provision at 43 C.F.R. § 3162.7-1(d): "The operator shall conduct operations in such a manner as to prevent avoidable loss of oil and gas. An operator shall be liable for royalty payments on oil or gas lost or wasted from a lease site, or allocated to a lease site, when such loss or waste is due to negligence on the part of the operator of such lease, or due to the failure of the operator to comply with any regulation, order or citation issued pursuant to this part." This existing provision adheres to the MLA's proper scope of avoidably lost gas, and contrasts with the Proposed Rule's overlapping Section 3179.4(c) definition of "avoidably lost" gas as anything that the Proposed Rule does not automatically define as "unavoidably lost."

Fourth, the Proposed Rule does not mention or reconcile BLM's existing regulation at 43 C.F.R. Section 3162.7-1(a) requiring that operators place production in marketable condition *if* doing so would be "economically feasible."

Finally, Section 3179.9 of the Proposed Rule conflates site security and measurement rules under 43 C.F.R. subparts 3173 and 3175, including facility measurement points, which serve wholly different purposes than waste prevention that the Proposed Rule purports to regulate. See our comments above on that specific section.

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from the well at issue.' . . . In contrast, the 2016 Rule deems losses of gas 'avoidable' (virtually all venting and flaring unless falling within one of twelve categories considered 'unavoidable' losses) without determining whether a reasonable and prudent operator would, given the circumstances, capture and market the gas.").

[140] 43 C.F.R. Section 3160.0-5.

5.0 BLM should defer to, rather than duplicate or assume, EPA's and states' exclusive Clean Air Act authority and corresponding regulatory efforts around methane.

The Associations appreciate the Proposed Rule's greater recognition of inherent limits on BLM's statutory authority, as explained by the District of Wyoming's opinion on the 2016 Rule. The Proposed Rule's preamble goes to great lengths to disavow any environmentally driven purpose, and to nominally focus solely on purported waste prevention. Yet, certain aspects of the Proposed Rule still appear to be air emissions controls rather than independently justified waste prevention measures. Indeed, in several instances, BLM has proposed provisions similar to the 2016 Rule, with merely different headings or additional accompanying preamble text. For present purposes, our greater concern is that the Proposed Rule not create potential conflicts or duplication with EPA and state requirements promulgated pursuant to the Clean Air Act and state authorities. Where EPA and states have addressed or are in the process of addressing methane emissions from oil and gas facilities, BLM should defer to those efforts rather than adding a burdensome, unnecessary, and legally suspect layer of new agency regulations.

The District of Wyoming held that the 2016 "Rule upends the CAA's cooperative federalism framework and usurps the authority to regulate air emissions Congress expressly delegated to the EPA and States."[141] The court went on to find that "BLM used its waste prevention authority as a more expedient means to accomplish the primary end goal of regulating methane emissions from existing oil and gas sources - outside of, and inconsistent with, the comprehensive scheme established by Congress under the CAA. . . . The stark disconnect between the stated rationale (MLA waste prevention) and the facts in the record (significant portions of Rule largely driven by intent to reduce methane emissions not covered by CAA air quality requirements) is precisely the type of 'bootstrapping' prohibited under the APA."[142] That is because Congress entrusted EPA and the states to protect air quality through emissions regulations. That conclusion doubly applies for existing sources regulated under Section 111(d) of the Clean Air Act, where EPA itself has explained, "[i]n most if not all cases, the result is likely to be substantial variation in the degree of control required for particular sources, rather than identical standards for all sources."[143]

These same principles govern the Proposed Rule. BLM may not simply decide to regulate air emissions because it is dissatisfied with what EPA and states have or have not yet done. BLM's footnote brushing aside the District of Wyoming's Clean Air Act "cooperative federalism" concerns is unpersuasive.[144] Nor is it sufficient for the Proposed Rule to pay lip service to EPA and state requirements and just amorphously say that BLM will consider adjustments to any

[141] See *Wyoming*, 493 F. Supp. 3d at 1065 (citing 42 U.S.C. Sections 7401(a)(3) and 7407(a)).
[142] *Id.* at 1070-71.
[143] 40 Fed. Reg. 53,340, 53,343 (Nov. 17, 1975).
[144] *Id.* at 73,599.

final rule based on what EPA and states do in the interim.[145] BLM's concern that current EPA and state proposals "would likely not go into effect until some period of time after" Clean Air Act procedures are completed is very similar to its premature approach rejected under the 2016 Rule.[146] Rather, prior to finalizing any rule of its own, BLM at a minimum should await finalization of any new EPA standards for new sources, as well as whatever EPA and states might promulgate on existing sources, to ensure consistency and non-duplication.

Yet, aspects of the Proposed Rule still lack independent justification for waste prevention and instead appear primarily driven by an effort to regulate air emissions, particularly greenhouse gases, which is improper. Certain of BLM's proposed time and volume caps on unavoidably lost gas are set so arbitrarily low as to appear focused on air quality. Other proposed provisions, such as immediate assessments under Sections 3179.6(b) 3179.203(a) for flares not continuously lit and open thief hatches on oil storage tanks, are also unjustifiable based on waste prevention. Indeed, at its Forum, BLM opined that Section 3179.6(b) was intended to ensure nominal gas volumes do not inadvertently vent out of a flare. BLM's accompanying slides for the Forum also distinguished Proposed Rule "provisions that are arguably more 'environmental' in nature" from "provisions that have a direct effect on royalty revenue," and sought to exempt state and private interests only from the former. Perhaps most tellingly, the Proposed Rule relies *entirely* on its calculations of the SCGHG to label its proposal as net beneficial. See our above comments on the RIA.

As a legal and practical matter, the most impactful consequence of BLM's overreach to regulate air quality is an overly burdensome conflicting and duplicative BLM regulatory overlay on already robust and additionally forthcoming EPA and state restrictions on methane emissions. These concerns are detailed more fully in the Section-by-Section comments above. We therefore ask BLM to avoid undertaking duplicative efforts and overlap with EPA and state regulations on the same or similar methane issues. In particular, BLM should defer to EPA's requirements on rules relating to LDAR, pneumatic equipment, and oil storage tanks. Overlapping regulations create rampant opportunities for conflicting language and interpretations, which would not result in further prevention of undue waste within BLM's purview.

6.0 Several provisions in the Proposed Rule are arbitrary and capricious under the Administrative Procedure Act.

Overall, as discussed above, operators need flexibility to demonstrate to BLM that flared gas in fact is unavoidably lost. To the extent that the Proposed Rule wholly denies such flexibility, it is arbitrary and capricious under the APA for similar reasons as the District of Wyoming explained in vacating the 2016 Rule's similarly categorical approach. That is, BLM must demonstrate

[145] *Id.* ("However, the BLM will maintain an awareness of developments in EPA's regulations and will make adjustments to the final rule as appropriate.").
[146] *Id.*

among other things that its Proposed Rule has not "entirely failed to consider an important aspect of the problem" or "offered an explanation for its decision that runs counter to the evidence before the agency."[147] BLM must do so based on facts in the administrative record and in light of the statutory considerations discussed above based on reasonable and prudent operations. Thus, if BLM defines certain flaring operations and amounts that are unavoidably lost per se, those volumes must be set in a non-arbitrary way, and more importantly must afford individual operators an opportunity to demonstrate to BLM that their flared gas is not avoidably lost.

It also is incumbent on BLM to justify its Proposed Rule and underlying assumptions based on the administrative record. As discussed above, this obligation is jeopardized at the outset by BLM's refusal to extend the public comment period and allow meaningful review of the Proposed Rule docket materials, including its factual, technical, and economic assertions. Moreover, key aspects of the Proposed Rule appear to be arbitrary, namely including certain numeric flaring limits for delineating unavoidably lost gas that are insufficiently justified and applied ubiquitously despite different operational circumstances. The Proposed Rule's selective inclusion of economic considerations for certain equipment requirements while wholly discarding economic considerations for unavoidable losses also creates arbitrary internal inconsistencies. Nowhere does the Proposed Rule remedy the District of Wyoming's concerns with prevention of "waste from stranded production" after shut-ins to prevent flaring of nominal gas volumes, or with the "*cumulative* impact of the Rule's requirements" on well operations.[148] Other aspects of the Proposed Rule that fail to provide adequate reasonable justification for its requirements include mandating, to the exclusion of all other technologies, only orifice metering for measuring high-pressure flares that flare 1,050 Mcf or more on a monthly basis.

Therefore, any final rule must not only adhere to BLM's authority, but also pass muster under the APA. As written, certain proposed provisions do not appear to satisfy that standard. Accordingly, we suggest language revisions to more firmly ground the Proposed Rule.

7.0 The Proposed Rule risks interference with lease contracts.

Our concerns with the Proposed Rule are particularly acute for existing leases and agreements. Portions of BLM's Proposed Rule risk materially breaching existing lease contracts or resulting in takings, potentially exposing BLM to substantial contract damages or payment of just compensation.[149]

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[147] *Wyoming*, 493 F. Supp. 3d at 1075 (citing Supreme Court cases, citations omitted).
[148] See *Wyoming*, 493 F. Supp. 3d at 1070; Proposed Rule at 73,598 ("The BLM does not wish to impose requirements that inadvertently cause recoverable oil or gas resources to be stranded due to premature lease abandonment.").
[149] See *Mobil Oil Prod. Southeast, Inc. v. U.S.*, 530 U.S. 604 (2000); *Amber Res. Co. v. U.S.*, 68 Fed. Cl. 535 (2005).

The long-established standard for what constitutes "avoidably lost" gas is a fundamental term of all oil and gas lease contracts on which lessees are entitled to rely. Yet the Proposed Rule would significantly alter this standard that was in place at the time existing leases were bargained for, by imposing substantial costs and burdens on lessees, or even terminating production.[150] Additionally, deferring or denying APDs, requiring production shut-ins, or imposing exploration delays while awaiting additional pipeline capacity may constitute material breach of existing leases, because lessees and BLM have always known that pipeline capacity is only developed after sufficient production exists to support the infrastructure investment. Instead, BLM must continue to consider the economics of the circumstances as it always has.

Breach and takings concerns for existing leases are especially salient given the development rights conferred by onshore federal oil and gas leases under the MLA and interpretive case law. Onshore, federal leasing is typically the point that results in an irretrievable commitment of resources for oil and gas development. That is because, consistent with the MLA, BLM cannot wholly prevent lessees from engaging in all surface-disturbing activities necessary for mineral development, except where the lease it issues states otherwise, principally in a no-surface-occupancy provision. Accordingly, courts find that the no action alternative is effectively eliminated and BLM irreversibly committed resources following issuance of the lease, and generally require more detailed environmental review prior to lease issuance onshore compared to earlier stages onshore or leasing offshore.[151] The Proposed Rule, including its creation of new deferments or denials of APDs for existing leases based on newly-required waste minimization plans employing a vast expansion of automatically deemed avoidable losses and requiring information unavailable to lessees, risks precluding development of existing leases at odds with rights already conferred under those contracts. To be sure, even the IRA upon which the Proposed Rule heavily relies expressly exempts all existing leases. At a minimum, portions of the Proposed Rule should do the same.

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[150] See *Marathon*, 452 F. Supp. at 551 ("This Court cannot lose sight of the general rule that, when the executive department charged with the execution of a statute gives a construction to it and acts upon that construction for many years, the Court looks with disfavor upon a change whereby parties who have contracted in good faith under the old construction may be injured by a different interpretation.").

[151] See, e.g., *Conner v. Burford*, 848 F.2d 1441, 1451 (9th Cir. 1988); *New Mexico ex rel. Richardson v. Bureau of Land Mgmt.*, 565 F.3d 683, 718 (10th Cir. 2009) (noting that the lessee "cannot be prohibited from surface use of the leased parcel once its [non-NSO] lease is final"); see also *Pennaco Energy, Inc. v. U.S. Dep't of the Interior*, 377 F.3d 1147, 1160 (10th Cir. 2004) (explaining that the lease provided lessees with certain rights and did not give the federal government the authority to deny drilling activity); *Sierra Club v. Peterson*, 717 F.2d at 1412, 1415 (stating that BLM must either prepare an Environmental Impact Statement before leasing or "retain the authority to preclude surface disturbing activities until an appropriate environmental analysis is completed"); *CBD,* 937 F.Supp.2d at 1153 (explaining that non-NSO leases required environmental analysis prior to issuance even though they contained provisions allowing BLM to deny all surface disturbing activities if threatened or endangered species are found); Bureau of Land Mgmt., U.S. Dep't of the Interior, BLM Manual H-1624-1 Planning for Fluid Mineral Resources I-2 (1990), https://www.blm.gov/sites/blm.gov/files/uploads/Media_Library_BLM_Policy_Handbook_H_1624_1.pdf ("By law, these impacts must be analyzed before the agency makes an irreversible commitment. In the fluid minerals program, this commitment occurs at the point of lease issuance.").