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April 22, 2016

Director Neil Kornze  
U.S. Department of the Interior, Director (630)  
Bureau of Land Management  
Mail Stop 2134 LM, 1849 C St., NW  
Washington, DC 20240

**FILED VIA: [www.regulations.gov](http://www.regulations.gov)**

Attention: 1004-AE14

**Re: Department of the Interior, Bureau of Land Management, 43 CFR Parts 3160 and 3170, [15X.LLWO300000.L13100000.NB0000], RIN 1004-AE14, Waste Prevention, Production Subject to Royalties, and Resource Conservation**

Dear Director Kornze:

This letter provides the comments of the North Dakota Petroleum Council (NDPC) in response to the Bureau of Land Management (BLM) proposed new regulations to reduce waste of natural gas from venting, flaring, and leaks during oil and natural gas production activities on onshore federal and Indian leases (hereinafter referred to as the "Waste Prevention Rule"). NDPC appreciates the opportunity to provide comment for BLM's consideration and, in particular, to offer North Dakota's unique perspective insofar as the Waste Prevention Rule would impact North Dakota and the future development of one of the world's significant oil and gas fields, the Bakken. NDPC respectfully requests its comments be placed in the administrative record.

### **The North Dakota Petroleum Council**

The NDPC is a trade association representing more than 500 companies involved in all aspects of the oil and gas industry, including oil and gas production, refining, pipeline, transportation, and storage, as well as mineral leasing, consulting, legal work, and oil field service activities in North Dakota, South Dakota, and the Rocky Mountain Region. Established in 1952, NDPC's mission is to promote and enhance the discovery, development, production, transportation, refining, conservation, and marketing of oil and gas in North Dakota, South Dakota, and the Rocky Mountain region; to promote opportunities for open discussion, lawful interchange of information, and education concerning the petroleum industry; to monitor and influence legislative and regulatory activities on the state and national level; and to accumulate and disseminate information concerning the petroleum industry to foster the best interests of the public and industry.

Importantly, North Dakota is ranked second in the nation in the production of oil and gas, and NDPC members produce 98 percent of the oil and gas in North Dakota. North Dakota produces approximately 400 million barrels of oil per year and 465 billion cubic feet of natural gas per year.



In 2013, the economic benefit from the oil and gas industry in North Dakota was approximately \$43 billion. North Dakota has two major economic generators: agriculture and energy. The state has more than 12,000 producing wells and anticipates the development of tens of thousands of additional wells in the coming decades.

For several years, the NDPC and its members have actively engaged and cooperated with various federal, state and local governmental agencies on multiple issues, which has resulted in great success in the advancement of gas capture, environmental, safety, and other important areas. This collaborative approach has combined industry's top technical personnel and agency experts and, through work on subsequent committees or task forces, we have shown that we can achieve much. These committees and accomplishments include:

1. NDPC VOC Emissions Task Force: Established Air Pollution Control Permitting & Compliance Guidance—Bakken Pool VOC's—North Dakota Department of Health, Division of Air Quality (May 2011).
2. NDPC Technical Committee: Top member company engineers worked together with state and federal experts in developing engineering standards and rules on well bore integrity for hydraulic fracturing of Bakken wells (2010-2011).
3. NDPC Flaring Task Force: Member companies working with the State of North Dakota (and BLM) in developing increased gas capture and 50% reduction in flaring in two years. *See* North Dakota Industrial Commission (NDIC) Order No. 24665 (2014 to present).
4. NDPC Crude by Rail Taskforce: Conducted an extensive study of Bakken crude oil characteristics and worked with NDIC, which resulted in NDIC Crude Conditioning Order No. 25417 to reduce Reid Vapor Pressure for safer transportation (2014-2015).
5. NDPC Bakken Upstream Air Task Force. Technical committee formed in response to September 2015 EPA Compliance Alert. NDPC Task Force working with EPA and the State of North Dakota, Department of Health, to improve vapor control systems to reduce air emissions (2015 to present).

NDPC objects to the overly broad and one-size-fits-all regulatory scheme proposed by the Waste Prevention Rule. Given past successes in similar situations, NDPC believes BLM should reconsider this approach and, instead, work together with industry, the State of North Dakota, local BLM management and engineers, and other agencies on appropriate regulations unique to the challenges presented in the Bakken.

### **Incorporation by Reference**

- a. NDPC supports the comments submitted by the North Dakota Industrial Commission on the following:
  - i. State of North Dakota has jurisdiction to administer oil and gas regulations within the state's boundaries.

- ii. Effect of proposed language on state tax revenues.
  - iii. Mineral Ownership in North Dakota is primarily private ownership or mixed ownership, not solely federal ownership.
  - iv. BLM didn't address Federalism issues.
  - v. Prescriptive limits on flared volume are not appropriate for unconventional oil production.
- b. NDPC supports the comments submitted by the American Petroleum Institute (API), Western Energy Alliance (WEA), the Independent Petroleum Association of America (IPAA) and the American Exploration and Production Council (AXPC).

### General Comments

#### Industry is Already Reducing Flaring and Emissions Through Voluntary Action

North Dakota has adopted and implemented a series of strict gas capture targets over the past two years that have demonstrated a successful means of supporting a buildout of natural gas gathering and processing infrastructure in our state.<sup>1</sup> Over eleven billion dollars have been spent on this infrastructure in the past seven years, an amazing feat in any state. North Dakota's historical high for gas flaring was 36% in September 2011. Subsequently, as a result of this enormous investment and the state's regulatory gas capture goals, *industry has increased gas capture from a low of 64% to 89% as of February 2016.*<sup>2</sup>

The proposed language of this Rule conflicts with the goals established by the State of North Dakota and elevates federal wells above state and private well interests. The Waste Management Rule fails to take into account current operators' dedication to reducing flaring. The industry has invested millions of dollars in pipeline infrastructure and tank battery equipment improvements, and has experimented with several remote capture technologies. The industry is continuously looking for ways to quickly tie in wells and reduce venting and flaring whenever possible. They recognize the benefits, financially and publically, of addressing this issue upfront and have done so in the past.

NDPC believes BLM lacks jurisdiction to regulate air quality, which is subject to EPA jurisdiction, and BLM should defer to EPA and the appropriate state agencies and eliminate all redundant, costly, and or conflicting air quality control provisions from the Waste Prevention Rule.

As to air emissions, and in particular methane emissions, according to the EPA, from 1990 to 2013, emissions of methane decreased in the United States by 15%, with the oil and gas production industry reducing emissions a full 21%.<sup>3</sup> And, since 2011, the oil and gas sector reduced methane emissions by 13%. This significant reduction was accomplished in large part because of voluntary actions undertaken by industry such as the NDPC VOC Task Force in 2011, *supra p. 2*. Further, the EPA, State of North Dakota Department of Health, and NDPC through its Bakken Upstream Air Task Force, are presently in cooperative discussions relating to improving vapor control

<sup>1</sup> North Dakota Industrial Commission Order No. 24665 (adopting gas capture targets).

<sup>2</sup> <https://www.dmr.nd.gov/oilgas/directorscut/directorscut-2016-04-15.pdf>.

<sup>3</sup> Inventory of U.S. Greenhouse Gas Emissions and Sinks: 1990-2013 (Environmental Protection Agency-April 2015).

systems to reduce air emissions further.<sup>4</sup> BLM's attempt to assert broad jurisdiction over air quality control only frustrates these efforts.

**Development of the Bakken Field presents many challenges unique to North Dakota, which were not considered by BLM in the proposed Waste Prevention Rule.**

Development of the Bakken in North Dakota presents many challenges not present in, or significantly different than, other basins throughout the United States, which received little or no consideration by BLM. These differences include:

- North Dakota is a rural state, located far distances from major markets and with very little preexisting gas pipeline and processing infrastructure at the time of initial development of the Bakken.
- The Bakken has a high gas-oil ratio producing large amounts of light, high quality crude oil, plus large amounts of associated gas rich in liquids. Liquids include propane, ethane, and butane.
- Inclement and harsh winter conditions create multiple challenges including:
  - Difficulty and delays in pipeline and other infrastructure construction;
  - Increased difficulty with transportation of products, including gas containing liquids through pipelines;
  - Increased difficulty in separating liquids in freezing conditions;
  - Increased difficulty with maintenance and repair on wellsite locations; and
  - Impossible or impractical to operate many remote capture technologies.
- Split estate land ownership. While the vast majority of mineral ownership in the Bakken is privately held, however, a minority of federal ownership of minerals is present in approximately one-third of all spacing units. In North Dakota, much of the federal mineral ownership was acquired through mortgage foreclosures in the 1930s, with the government later selling the surface and reserving all or a portion of the minerals. These small, checkerboard, federally-owned tracts are unique to North Dakota whereas, in other states and basins, federal mineral ownership is more typically large public domain tracts. (The Waste Prevention Rule, as drafted, would assert primary jurisdiction over hundreds of thousands of acres of private land under the jurisdiction of the NDIC).
- Tribal lands. The Fort Berthold Indian Reservation is located in the heart of the Bakken. Additional challenges exist with Tribal and BIA regulations pertaining to rights-of-way and permitting delays.
- Navigable waters. The Missouri River and Lake Sakakawea (the third largest manmade lake in the United States) are located in the center of the Bakken field. The river and lake create additional challenges including Corps of Engineers permitting requirements for pipelines and other facilities near or underlying the waters, additional state required spill prevention measures, and complex mineral title ownership determination issues.

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<sup>4</sup>EPA Administrator McCarthy expressly acknowledged ongoing discussions with North Dakota Department of Health and Bakken oil and gas operators in Congressional testimony, March 22, 2016.

- **Crude Conditioning.** Partially in response to PHMSA and other public interests, North Dakota is the only state that requires crude oil conditioning prior to transport by rail. The state's conditioning regulations require operators to maintain heater-treaters and other equipment at certain temperatures and pressures to reduce Reid Vapor Pressure. (The BLM makes no mention of crude conditioning and the proposed Waste Prevention Rule provisions are in direct conflict with the crude conditioning requirements to ensure safer transportation of Bakken crude).
- **Hydraulic fracturing.** Although common to other unconventional oil and gas plays, hydraulic fracturing procedures and subsequent production operations present unique challenges in the Bakken during flowback (separation of frac water, sand, produced water, oil, natural gas and liquids) as well as long-term reservoir maintenance, pressure and production operational issues to preserve long-term conductivity of fractures and prevent the loss of otherwise recoverable reserves.
- **Eminent domain.** In addition to delays in obtaining permits from federal and other regulatory agencies, as to easements from private owners, North Dakota's, Constitution prohibits private corporations from exercising "quick-take" eminent domain to obtain access for gas gathering pipelines. All private easements must be separately negotiated and agreed upon prior to construction of a gas-gathering pipeline.

These issues, along with the Waste Prevention Rule's failure to consider North Dakota, as well as the Rule's negative impact on the state, are more fully discussed in the Comments herein.

### **BLM LACKS JURISDICTION TO IMPOSE THE WASTE PREVENTION RULE ON PRIVATE AND STATE LANDS**

Outside of the Fort Berthold Reservation, the vast majority of mineral ownership in North Dakota and within the Bakken field boundaries is privately held, however, a minority of federal ownership of minerals is scattered throughout western North Dakota.

Much of the federal mineral ownership was acquired through mortgage foreclosures during the great depression in the 1930s. The United States, acting through the Federal Land Bank and pursuant to the Bankhead Jones Act, foreclosed on many small farms acquiring ownership of the surface and minerals. The United States later sold most of the surface and, in many cases, reserved an undivided one-half or all of the minerals in these tracts, creating "split" estates. As a result, mineral ownership in much of the western part of the State consists of a "checkerboard" pattern of fee, state, and federal minerals, and often within the same section or spacing unit. The federal mineral ownership interest in North Dakota, thus, is vastly different than most other western states where the United States owns large blocks of land, typically both the surface and minerals, and where the United States would have a greater interest justifying regulation.

The majority of Bakken spacing units consist of two sections, or 1280 acres. The NDIC estimates that up to 33% of these spacing units contain some federal acreage. Attached hereto as Exhibit 1 is a plat of a typical 1280 acre "stand up" spacing unit with diverse fee and federal ownership. The SE/4NE/4 of Section 1 is all federal minerals, and the remaining 1240 acres is fee resulting in the

United States owning only 3.125% of the spacing unit. The Exhibit presumes eight horizontal wells are drilled in the spacing unit, with two of the eight horizontal well bores penetrating federal minerals. Under existing regulations, the two wells penetrating the federal minerals would require an APD and constitute “federal” wells, but not the other six on entirely fee lands.<sup>5</sup> All eight wells, however, would be subject to a federal communitization agreement for purposes of allocation of production and payment of royalties. The Waste Prevention Rule, as drafted<sup>6</sup>, would extend the provisions of the Rule to all lands covered by a communitization agreement (“CA”), and would effectively assert primacy jurisdiction over all eight wells in the spacing unit where the United States only owns 3.125% of the spacing unit and, on a broader scale, would result in the BLM asserting jurisdiction over hundreds of thousands of acres of private land presently under the sole jurisdiction of the state.

The Waste Prevention Rule should not apply to a CA where the federal government holds minority interests that are not directly impacted by development. The BLM’s attempt to regulate *all* lands within a CA impedes North Dakota’s authority to regulate its own lands. The BLM does not have broad authority to trump North Dakota regulations. It also has limited authority over non-federal and non-Indian sites within federally-supervised unit and communitization agreements.

The BLM has acknowledged its limited authority over non-federal and non-Indian lands. “[T]he Bureau of Land Management’s authority is limited to Federal and Indian lands, except as authorized by a unit or communitization agreement.”<sup>7</sup> “[I]f the United States merely accepts the agreement rather than formally approving it, usually in the case of nominal Federal or Indian interest ownership therein, these regulations do not apply to operations on private or State lands.”<sup>8</sup>

While the Bureau has recognized its limited authority over non-Federal and non-Indian lands, it also recognized, “[T]he Bureau of Land Management must have some *limited authority* to obtain needed data and to inspect non-Federal and non-Indian sites to assure that the Federal and Indian interests are protected.”<sup>9</sup> It is important to note that the assertion of limited authority and protection of interests referenced was in regard to the implementation of the Federal Oil and Gas Royalty Management Act.<sup>10</sup>

The preamble to the proposed rules in 51 Fed. Reg. 3882 (Jan. 30, 1986), references the preamble to the September 21, 1984 final rulemaking that addressed the BLM’s limited authority over non-Federal and non-Indian sites. The January 30, 1986 preamble attempts to clarify which operations the BLM has limited authority over specifically stating,

*This proposed rulemaking clarifies that, unless additional responsibilities are specified in the formal agreement, regulations related to site security,*

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<sup>5</sup> See BLM IM (2015-123) which specifically states a federal APD is not required when a proposed well will not penetrate federal or Indian minerals.

<sup>6</sup> At Sections 3178.2 and 3179.2, BLM states that the scope of the rule applies to both federal surface and minerals and all state or private tracts committed to a CA, as well as any equipment located on a federally approved CA. See also 81 Fed. Reg. at 6680-81.

<sup>7</sup> 49 Fed. Reg. 37356 (1984) (emphasis added).

<sup>8</sup> *Id.*

<sup>9</sup> *Id.* (emphasis added).

<sup>10</sup> *Id.*

*measurement, reporting of production and operations, and assessments or penalties for noncompliance with such requirements are applicable to all wells or facilities on State or privately-held mineral lands which affect Federal or Indian interests through unitization, communitization, or similar agreements.*<sup>11</sup>

51 Fed. Reg. 3882 goes on to propose revisions amending 43.C.F.R. § 3161.1(b) [which were ultimately adopted] specifying which areas the BLM has authority over,

(b) Regulations in this part relating to site security, measurement, reporting of production and operations, and assessments or penalties for noncompliance with such requirements are applicable to all wells and facilities on State or privately-owned mineral lands committed to a unit or communitization agreement which affects Federal or Indian interests, notwithstanding any provision of a unit or communitization agreement to the contrary.

43 C.F.R. § 3161.1(b) clearly identifies which regulations extend to non-federal and non-Indian lands under Part 3160. The BLM's limited authority is in relation to the Federal Oil and Gas Royalty Management Act and specific to site security, measurement, reporting of production and operations, and assessments of penalties regarding these requirements. Any extension of BLM authority over non-federal, non-Indian land beyond these areas is an unfounded assumption of federal authority usurping North Dakota's authority to regulate its own lands.

It has been held a limitation on the construction of sections within the MLA, "must also apply to *any regulations* made by the Secretary of Interior to do any and all things necessary to carry out and accomplish the purposes of [the MLA]." <sup>12</sup> Additionally, "since Congress has said . . . [the MLA] shall not be construed to affect the rights of the States or other local authority to exercise any rights which they may have, *this must likewise be a limitation on the Secretary of the Interior as to his regulation making authority . . .*" <sup>13</sup> The Court continued by stating it is, "significant to note that not all regulations are promulgated exclusively under the authority of the [MLA]". <sup>14</sup> The court listed additional grants of authority to which the limitation on infringement of State and local authority applies including, 25 U.S.C. 356, 397, 398, 396d, 30 U.S.C. 306, and 30 U.S.C. 359. <sup>15</sup>

The regulations proposed under 40 C.F.R. Part 3160 and Part 3170 derive their authority in part from 25 U.S.C. 396d, and 30 U.S.C. 306, 359, which the Court expressly stated are not to be construed to affect the rights of states and local authorities. <sup>16</sup> Thus, any regulations promulgated under 40 C.F.R. Part 3160 and Part 3170 cannot impede on state and local authority and this would extend to non-federal, non-Indian lands within a CA. Surely this limitation on power was not strictly limited to the sources of authority identified by the Court and existing in 1967. It would

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<sup>11</sup> 51 Fed. Reg. 3882. (emphasis added).

<sup>12</sup> *Texas Oil & Gas Corp. v. Phillips Petroleum Co.*, 277 F. Supp. 366, 370 (W.D. Okla. 1967), aff'd, 406 F.2d 1303 (10th Cir. 1969).

<sup>13</sup> *Id.* (emphasis added).

<sup>14</sup> *Id.*

<sup>15</sup> *Id.*

<sup>16</sup> *Id.*

appear this limitation would extend to additional sources of authority from which the Secretary of the Interior would derive his rule making authority from as well.

The Waste Prevention Rule, in its application and effect, would grant the federal government exclusive jurisdiction where Congress has not granted it. It has been held that Congress has not undertaken to assume exclusive control of federal mineral lands under the [Federal Mineral Leasing] Act.<sup>17</sup> Where Congress has not undertaken to assume exclusive control over federal mineral lands, it cannot be assumed to have exclusive control over non-federal, non-Indian lands. Section 187 of the MLA provides, “None of such provisions shall be in conflict with the laws of the State in which the leased property is situated.” This language is not aimed at putting the lands under the exclusive control of the Federal Government to the exclusion of the States.”<sup>18</sup> The Waste Prevention Rule, in its application and effect, would grant the federal government exclusive jurisdiction over not just federal mineral lands, but over non-federal and non-Indian land within a CA, where such a grant has not been given by Congress. The NDPC strongly believes any extension of BLM authority over non-federal, non-Indian is an unfounded extension of federal authority.

State law applies to leaseholds where no significant threat to any identifiable federal policy interest is shown. The BLM has failed to identify a significant conflict the application of North Dakota law would bear on federal mineral interests within a CA mainly comprised non-federal, non-Indian interests. The United States Supreme Court has ruled on the issue of whether in general federal or state law should govern the dealings of private parties in an oil and gas lease validly issued under the Mineral Leasing Act of 1920.<sup>19</sup> In deciding this issue, the Supreme Court held, “[T]he guiding principle is that a *significant conflict between some federal policy or interest and the use of the state law* in the premises *must first be specifically shown.*”<sup>20</sup> Where no significant threat is identified, state law applies to such leaseholds.<sup>21</sup> Additionally, it must be determined whether the application of state law would *frustrate specific objectives of the federal programs.*<sup>22</sup> The BLM has failed to demonstrate how the application of North Dakota regulations pose a *significant conflict* to federal interests or policy, or *frustrate specific objectives* of the BLM where North Dakota regulations address and seek to remedy the specific issues the BLM has identified in its proposed regulations.

NDPC requests that the BLM not apply the Waste Prevention Rule to wells that are not located on federal surface and do not penetrate federal minerals. In the alternative, NDPC requests that the BLM consider establishing a minimum threshold of 50% or more federal mineral ownership in spacing units before extending the Rule to all wells lying within a spacing unit.<sup>23</sup>

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<sup>17</sup> *Texas Oil & Gas Corp. v. Phillips Petroleum Co.*, 277 F. Supp. 366, 369 (W.D. Okla. 1967), aff'd, 406 F.2d 1303 (10th Cir. 1969).

<sup>18</sup> *Id.* at 369.

<sup>19</sup> *Wallis v. Pan Am. Petroleum Corp.*, 384 U.S. 63, 67 (1966).

<sup>20</sup> *Id.* (emphasis added).

<sup>21</sup> *Texas Oil & Gas Corp.*, 277 F. Supp. 371 (1969).

<sup>22</sup> *United States v. Kimbell Foods, Inc.*, 440 U.S. 715, 728, (1979).

<sup>23</sup> There exists prior precedent for classifying wells as fee or federal/Indian based on percentage of mineral ownership in the spacing unit. See Oil and Gas Tax Agreement Between The Three Affiliated Tribes and State of North Dakota,



## Proposed Gas Flaring Regulations—Flawed Assumptions

While NDPC believes the Waste Prevention Rule and comments associated therewith are replete with several flawed assumptions, NDPC draws particular attention to two primary misconceptions held by BLM that likewise lead to flawed provisions throughout the proposed rules. The comments to the Rule imply that BLM considers operating and producing a Bakken oil and gas well is similar to a water faucet. Turn the faucet on whenever needed, turn it off if the drain pipes are frozen or clogged, turn it back on when the pipes are cleared, or turn it halfway off if too much water is flowing for the drain pipe to adequately handle. There are two major factors that prevent this simplistic model from happening. First, operators must conduct operations to protect the integrity of the reservoir to ensure maximum ultimate recovery of oil and gas, both for economic return and to prevent waste. The BLM further presumes that each time the faucet is turned off and on, the same volume will flow. Bakken wells do not recover to the same flow after shut-ins. Second, operators have no or little control over the drain pipe system, i.e., the relationship between operators and midstream gas gatherers does not appear to be fully considered or understood by BLM in its analysis for purposes of imposing flaring thresholds, imposition of royalties, and determination of “avoidable” versus “unavoidable” flaring.

All wells in the Bakken shale, of course, are completed by the hydraulic fracture technique. Multiple studies by the Society of Professional Engineers have concluded that the repeated cycling of wells results in the loss of conductivity of the fracture with permanent damage to the reservoir.<sup>24 25 26 27 28 29 30</sup> Among the studies, a recent 2013 study of 280 wells in multiple basins (Impact of Delays and Shut-Ins on Well Productivity, SPE 165705), analyzed this “cycling” or repeated shutting in or curtailing of wells and concluded:

- Delay from the end of stimulation until first production is detrimental.
- The event of a shut-in is generally, but not always, harmful.
- Shut-in related damage continues to accrue during subsequent shut-in events.
- Once on production, the longer that production period can be sustained, the greater the benefit to the reservoir/wellbore connectivity.
- The duration of the shut-in has no obvious correlation to the severity of the damage arising from the shut-in.

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June 21, 2013 (classifying wells containing over 50% Tribal minerals as “Trust Lands” and wells with over 50% fee lands as “Non-Trust” Lands regardless of location of wellsite or wellbore).

<sup>24</sup> S. A. Holditch and D. M. Blakeley, “Flow Characteristics of Hydraulic Fracture Proppants Subjected to Repeated Production Cycles,” SPE 19091, 1992.

<sup>25</sup> M. R. Besler, “Bakken Completion Challenges,” The Bakken Shale Forum, University of North Dakota Energy and Environmental Research Center, Grand Forks, ND USA. November 6, 2007.

<sup>26</sup> G. R. Coulter, and R. D. Wells, “The Advantage of High Proppant Concentration in Fracture Stimulation,” SPE 3298, SPE Journal, June 1972.

<sup>27</sup> J. L. Gidley, G. S. Penny, and R. R. McDaniel, “Effect of Proppant Failure and Fines Migration on Conductivity of Propped Fracture,” SPE 24008, 1995.

<sup>28</sup> J. Terracina, “Effects of Proppant Selection on Shale Fracture Treatments,” JPT Update, May 2011.

<sup>29</sup> S. Agrawal and M. Sharma, “Impact of liquid Loading in Hydraulic Fracture on Well Productivity,” SPE 163837, 2013.

<sup>30</sup> J. W. Crafton, and S. L. Noe, “Impact of Delays and Shut-Ins on Well Productivity,” SPE 165705, 2013.

- Excessively rapid reduction of the wellhead flowing pressure is detrimental to maintaining good reservoir / wellbore connectivity.

BLM acknowledges and states that certain wells will require curtailment or shut-in to meet flaring limits, and essentially concludes these limits will prevent operators from simply making what BLM refers to as an “economic choice” to produce oil and to flare gas. Yet nowhere does BLM consider the harm or costs the Waste Management Rule will have upon the Bakken reservoir, *the loss of ultimate or maximum recovery of oil and gas*, and no consideration for lost revenue to the Tribe and general public. BLM ignores long established law that (1) it must ensure “the maximum recovery of oil and gas with minimum waste”; and (2) operators also must conduct their operations to ensure “the maximum recovery of oil and gas with minimum waste.”<sup>31</sup>

### **Relationship of Operators and Midstream gas gathering companies**

The Regulatory Impact Analysis (“RIA”) asserts that “43% of the estimated wells with oil-well gas flaring also marketed and sold gas at the time when they were flaring, indicating that a large number of operations flare despite being connected to a pipeline or having some ability to market and sell the gas.” While it is accurate that a large portion of flared gas originates from wells with a pipeline connection, it is incorrect to assume that the operator has the ability to market and sell the gas just because a pipeline connection exists.

Gas pipelines are a complex supply chain with multiple potential bottlenecks. The supply chain can be linear and any bottleneck will limit the rest of the system. Or, the supply chain is becoming more of a network with a variety of different paths for gas to travel from the wellhead to an end market.

Operators do not have significant control over infrastructure capacity provided by a third-party midstream company. Generally, the midstream companies are completely separate entities from oil and gas producers. Well operators enter into long-term agreements to handle the gathering and processing of wellhead gas. This structure allows well operators to avoid deploying capital in non-oil and gas producing assets and achieve lower cost of service by utilizing common carrier infrastructure that has greater economies of scale. For those advantages, the well operator typically must contractually commit guaranteed volumes or a drilling area to the midstream provider and allow the midstream operator control of the gathering and processing system, including capacity investment decisions, pipeline sizing/routes, design, and maintenance. The well operator has neither control over the pipeline capacity nor any control over other well operators’ operations.

Intermittent flaring is seen in many places when operators are bringing on new production at high initial rates that kicks out other connected production depending on tie-in point and flow direction. A well operator that curtails to reduce well head flaring has no guarantee of being given additional space on that pipeline back in the future for flow assurance and could continue to be kicked out of the line.

Infrastructure capacity takes time to develop as midstream operators must aggregate the plans and forecasts of all well operators on the system for five to ten years to make investment decisions,

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<sup>31</sup> See 43 C.F.R. 3161.2 and 43 C.F.R. 3162.1(a).

which once made, can take 2-3 years to build and startup. Among most infrastructure projects, right of way delays can cause significant delays that are out of control of the midstream entity and the operator.

In sum, while tremendous progress has been made on gas capture, and more success is expected in the future, the fact remains, flaring is necessary to produce Bakken oil and pipeline capacity constraints and other factors such as right-of-way delays will make eliminating venting and flaring virtually impossible. Yet BLM's proposed regulations will, by its own acknowledgement and intent, require curtailment or shutting in of wells, and by all scientific accounts, compliance with the regulations will damage the Bakken reservoir and diminish the ultimate recovery of oil and gas, thereby increasing, rather than preventing, waste.

### **Section 3162.3-1 Drilling Applications and Waste Minimization Plans**

NDPC requests the BLM eliminate this provision entirely and defer to North Dakota's (and other states) own Gas Capture Plans (GCP).

North Dakota is the first state to effectively implement such a requirement, and the BLM recognizes the effectiveness of North Dakota's GCPs. *See* 81 Fed. Reg. 6642 (North Dakota regulators identify GCPs, "as a highly effective element for their requirements to reduce flaring."). Proposed § 3162.3-1 infringes on North Dakota's ability to effectively regulate its own industry. The required Waste Management Plan (WMP) is duplicative and, in some instances, conflictual with existing North Dakota regulations. If the BLM allows states to continue to use their own GCPs, it will eliminate the duplication of information at the state and federal level, and streamline the APD process. Section 3162.3-1 of the Waste Management Rule would require the GCP to be submitted with an APD. The BLM does not retain authority to enforce a WMP. However, the BLM retains the authority to deny or disapprove an APD if the WMP does not contain "complete or adequate" information.<sup>32</sup> It is unclear how an APD could be denied on the basis it does not contain adequate information, when an operator is not required to follow the information it submits in the first place. Additionally, the Waste Management Rule demonstrates an inherent misunderstanding of the relationship and stark differences between mid-stream and oil and gas companies. Some of the information required under the WMP is not possible for producers to acquire from mid-stream companies but yet this could create another basis for denial of an APD.

Much of the WMP required information is "comparable to the information North Dakota requires to be included in the gas capture plan" however, the existing differences will pose significant obstacles to operators.<sup>33</sup> It is not feasible for operators to provide information from mid-stream companies with whom they do not have a contractual relationship. The NDIC pursuant to Commission Order 24665, requires a GCP from operators applying for an APD, and does not require operators to obtain the type of information the BLM is proposed to require from mid-stream companies. North Dakota operators are only required to provide information pertaining to the mid-stream company for which they have entered into a gas gathering contract with. Further, this specific information can only be obtained if a contract exists. An operator has no means of

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<sup>32</sup> *See* 81 Fed. Reg. 6642 and 43 CFR § 3162.3-1 as proposed in 81 Fed. Reg. 6679.

<sup>33</sup> 81 Fed. Reg. 6642.

obtaining information regarding the location of all existing pipelines within a 20 mile radius of a well as required under proposed § 3162.3(j)(3)(ii).

The NDIC instead requires a gas gathering pipeline system location map which depicts: a. The name and location of the destination processing plant; b. The name of gas gatherer and location of lines for each gatherer in the map vicinity; and c. the proposed route and tie-in point to connect the subject well to an existing gas line.<sup>34</sup> The NDIC also does not require an expected production decline curve from the proposed well or the expected Btu value for gas production from the proposed well as required by proposed § 3162.3-1(5)(iii)-(iv). (See Letter from Todd L. Holweger). The expected decline curve from a proposed well is confidential, propriety information that is not subject to public disclosure. While the BLM manages and regulates APDs on federal and Indian lands, this does not afford the BLM unlimited access to an operator's confidential information. The requirement of submitting a Btu value is irrelevant to capacity constraints and is unknown until after drilling ceases. A requirement to produce this information is not only unnecessary, but would result in an operator producing speculative data rendering it useless. It is important to note, the federal APD approval process is lengthy, often several months and, by the time data in an APD application is reviewed, the data will likely be outdated as gas pipeline infrastructure, capacity constraints, and the introduction of new wells into the pipeline system are constantly evolving. The NDIC reviews permits and GCPs and grants approval in a matter of weeks. A similar federal APD requirement will only add to the existing backlog in processing APDs and Sundry Notices.

### **Section 3179.6 When flaring or venting is prohibited**

The NDPC requests the limits on flaring and venting simply be removed from the Waste Management Rule or, in the alternative, BLM establish appropriate basin and statewide flaring thresholds and adopt North Dakota's gas capture goals insofar as the regulations would apply to the Bakken.

The BLM acknowledged, "there is substantial uncertainty in analyzing the impact of a flaring limit", but still seeks to impose one-size-fits-all regulation.<sup>35</sup> The proposed rule would affect approximately 33% of existing facilities in North Dakota. This is considerably more, and in stark contrast to BLM's estimate of 16% of oil wells impacted by the flaring limit of 1,800 Mcf/month.<sup>36</sup> The BLM estimates the proposed venting and flaring limits, including the three-year phase-in period would affect 435 to 885 leases in any given year.<sup>37</sup> This range of leases appears vastly underestimated given that one member operator alone estimates that more than 400 existing wells would be affected by the rule.

In reaching its proposed venting and flaring limits, "the BLM analyzed data indicating the average flaring rates across wells."<sup>38</sup> It is unclear exactly which wells or from what basins well data was primarily used in determining the proposed venting and flaring limits. With, "[o]ver 90 percent of [the] flaring occur[ing] in North Dakota, South Dakota, and New Mexico", it is unclear why the

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<sup>34</sup> (See Letter from Todd L. Holweger, North Department of Mineral Resources, to North Dakota Operators (May 8, 2014), *accessible at* <https://www.dmr.nd.gov/oilgas/Gas%20Capture%20Plans%20Required%20on%20All%20APD's%20050814.pdf>).

<sup>35</sup> 81 Fed. Reg. 6639.

<sup>36</sup> *Id.*

<sup>37</sup> *Id.* at 6643.

<sup>38</sup> *Id.* at 6639.

BLM selected a proposed venting and flaring limit, “consistent with Wyoming or Utah’s approach[.]”<sup>39</sup> These states both implemented these flaring and venting limits for conventional wells in the 1980s. The BLM’s flaring limit is arbitrary and does not address the needs of the states whom the BLM identified as the main contributors to flaring on federal and Indian land.

The BLM’s proposed venting and flaring limits are not practical for when a well first comes on line or for Bakken operations in general. The Rule also does not consider the higher gas to oil ratio (GOR) in the Bakken, which are predicted to increase as the field matures. The Bakken produces much higher amounts of natural gas when developed than compared to other shale plays, and the proposed BLM flaring limits can be reached in a matter of hours on new wells. In many instances, wells on federal or Indian lands will be connected to gathering systems located on non-federal, non-Indian lands that are subject to different venting and flaring limits and regulations. It is unreasonable for the BLM to attempt to regulate federal and non-federal wells located on the same gas sales line. Cycling will occur field wide as operators turn wells on and off to achieve compliance with flaring requirements. Continuous cycling will increase equipment failures in areas constrained to make sales, and lead to damage to the Bakken reservoir.

A significant difference between North Dakota regulation and the Waste Management Rule is the way in which flaring reduction is achieved. “Since North Dakota’s rapid natural gas production growth makes production volumes difficult to anticipate, the NDIC’s targets are based on percentages rather than absolute amounts of flared gas.”<sup>40</sup> North Dakota has aggressively tackled flaring within the state and the NDIC has established the following gas capture goals: 74% October 1, 2014 through December 31, 2014; 77% January 1, 2015 through March 31, 2016; 80% April 1, 2016 through October 31, 2016; 85% November 1, 2016 through October 31, 2018; 88% November 1, 2018 through October 31, 2020; and 91% beginning November 1, 2020.<sup>41</sup> The gas capture percentage is calculated by summing the monthly gas sold plus monthly gas used on lease plus monthly gas processed in a Commission approved beneficial manner, divided by the total monthly volume of associated gas produced.<sup>42</sup>

The Waste Management Rule is in direct conflict with North Dakota laws regulating flaring and the State’s Gas Capture Policy.<sup>43</sup> Section 38-08-06.4 allows for gas to be flared (royalty free) from an oil well for up to one year from the date of first production.<sup>44</sup> After the one-year flaring exemption, flaring must cease and the well must be:

- a. Capped; b. Connected to a gas gathering line; c. Equipped with a system that intakes at least seventy-five percent of gas and natural gas liquids volume from the well for beneficial consumption by means of compression to liquid for use as fuel, transport to a processing facility, production of petrochemicals or fertilizer, conversion to liquid fuels, separating and collecting over fifty percent of the

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<sup>39</sup> *Id.* at 6619, 6640.

<sup>40</sup> Michael Ford, Warren Wilczewski, *North Dakota Natural Gas Flaring Targets Challenged by Rapid Production Growth*, (Nov. 13 2015), <http://www.eia.gov/todayinenergy/detail.cfm?id=23752>.

<sup>41</sup> North Dakota Industrial Commission Order 24665 Policy/Guidance Version 102215.

<sup>42</sup> *Id.*

<sup>43</sup> See N.D.C.C. 38-08-06.4. and NDIC Order No. 24665

<sup>44</sup> *Id.* at 38-08-06.4(1).

propane and heavier hydrocarbons; or e. Equipped with other value-added processes as approved by the industrial commission which reduce the volume or intensity of the flare by more than sixty percent.<sup>45</sup>

Separate and apart from N.D.C.C. 38-08-06.4, NDIC Order No. 24665 establishes North Dakota's gas capture goals and regulates flaring, production, any necessary curtailing and penalties. In addition to requiring Gas Capture Plans for all new drilling permits, the NDIC requires all operators to be in compliance with the gas capture goals. If operators are in compliance with the NDIC gas capture goals, then in order to allow operators the maximum flexibility to manage their drilling, operation, and gas capture plans, the operator may:

1. Produce at a maximum efficient rate (MER) for 90 days for all infill horizontal wells;
2. Remove the initial 14 days of flowback gas from the total monthly volume calculation;
3. Remove from the total monthly volume flared gas from wells already drilled and completed on the date a force majeure event occurs if the event is properly documented in writing by the gas gathering company.
4. Accumulate credits for volumes of gas captured during the most recent three months in excess of the current gas capture goal.
  - a. The commission may apply all or a portion of the credit to a month in which the operator cannot meet the current gas capture goal upon application by the operator.
  - b. Credits cannot be transferred to another operator.
  - c. Unused credits expire after three months.
  - d. Credits may be applied only if one or more of the *extenuating circumstances* exist.<sup>46</sup>

Thus, the NDIC gas capture plan affords operators great flexibility in managing their operations and development of the field, which enables operators to continue to produce oil and gas and to stay in compliance with the stated goals. But, if operators are not in compliance, only then will the NDIC impose production restrictions and/or civil penalties of up to \$12,500 per month.<sup>47</sup>

The BLM has stated its venting and flaring limits are somewhat more flexible than the limits North Dakota has imposed, however, in comparing the NDIC's approach to the proposed Rule, this statement is obviously incorrect.

NDIC gas capture goals measure gas capture compliance on a statewide, county or field basis, afford flexibility. Among other advantages, this allows operators flexibility in managing flowback for the first 14 days of production. Gas capture during the flowback period is more difficult for a number of reasons, including coordination with the gas gatherer and flowback operator for all necessary equipment, installing properly sized equipment without knowing the amount of gas production, and the necessity to test the gas concentrations for H<sub>2</sub>S and other chemicals. After the flowback period,

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<sup>45</sup> *Id.* at 38-08-06.4(2).

<sup>46</sup> Extenuating circumstances are defined as (1) surface landowner, tribal or federal government right-of-way delays (2) temporary midstream down-time for system upgrades and/or maintenance (3) federal regulatory restrictions or delays (4) safety issues (5) delayed access to electrical power, and (6) possible reservoir damage. See North Dakota Industrial Commission Order 24665 Policy/Guidance Version 102215.

<sup>47</sup> *Id.*

gas volumes and concentrations are reviewed to ensure proper production and treating equipment is onsite for future sales.

The NDIC also allows new development wells to produce at a maximum efficient rate for the first 90 days of production, again assuming the operator is in compliance with gas capture goals. While any gas flared during this period is not excluded from gas capture calculations, other than the initial 14 days of flowback if the operators chooses, it does allow the operator to produce at maximum efficient rate to better evaluate the reservoir (the first 90 days are critical to the models on the total recovery of the well, which is necessary to understand the potential productivity of the well and the area in order to make decisions regarding future wells and necessary infrastructure requirements).

The BLM's approach on flowback operations and MER the first 90 days makes no consideration of the difficulties of gas capture during the flowback period or the reservoir engineering benefits of the 90 day MER. Rather, BLM imposes blanket flaring limits from inception of production for the life of the well to "represent[] the total volume of gas flared or vented over a production month from all development oil wells on a lease, unit of CA." In fact, BLM would restrict production during the 90 day MER period if the flaring limit could not be met, or if the production from a new well kicks existing wells off line, even if the operator was in compliance with NDIC's gas capture goals. Restriction of production in this critical time period would damage the reservoir and operators would lose the opportunity to evaluate critical reservoir engineering data.

The BLM venting and flaring limits in § 3179.6 pose numerous other problems. For example, under BLM requirements, an operator who is ranked the highest in North Dakota for gas capture compliance could be found in violation of BLM rules and forced to shut in production on a handful of wells because one particular area of the field has uniquely high percentages of associated gas combined with gas pipeline capacity constraints in that area. North Dakota's approach allows the operator flexibility to average the flaring amount over a county or statewide basis, subject to the operator meeting the overall gas capture goals. Areas where an operator is achieving significant gas capture help offset the areas where gas capture is infeasible or economically impractical. The NDIC gas capture policy requires operators to meet annually with the Department of Mineral Resources to review each company's gas capture goals, gas capture progress and future plans. The NDIC also holds semi-annual meetings with midstream gas gathering companies. This overall approach to gas flaring has been successful and is a much more realistic approach than the Waste Prevention Rule to promote production while continuing to reduce the volumes of flared gas.

The BLM's failure to acknowledge North Dakota's crude conditioning requirements is a prime example of why venting and flaring regulation should remain at the state level. In 2014 PHMSA and other transportation officials, several states and other interested parties, expressed concern over the safety of Bakken crude oil transportation by rail. In response, on December 9, 2014 the NDIC approved Commission Order No. 25417, which requires North Dakota producers to install and utilize oil-condition equipment to reduce the vapor pressure of Bakken crude to promote safer transportation.<sup>48</sup> To reduce vapor pressure, the NDIC adopted a rule providing, "[p]roduction facilities utilizing a gas-liquid separator and/or an emulsion heater-treater [are required] to operate [] at a pressure of no more than 50 psi . . . ."<sup>49</sup> While operating the equipment at a pressure below

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<sup>48</sup> See Commission Order No. 25417, accessible at <https://www.dmr.nd.gov/oilgas/Approved-or25417.pdf>.

<sup>49</sup> *Id.*

50 psi removes more dissolved gas from the oil reducing vapor pressure, the operating pressure of the equipment is frequently insufficient for gas capture. Low pressure gas results in increased flaring volumes because it cannot be routed to a gathering network or sales line. In theory, costly compression can be added on site, but only if the downstream gathering network can handle the additional gas. This demonstrates the BLM has not accounted for instances where flaring is necessary for compliance with State and PHMSA safety regulations. Flaring associated with crude conditioning should be (1) excluded from calculation of any threshold limitations; and (2) should be classified as “unavoidably lost”. Under NTL-4A treater gas volumes could have been classified as “low pressure production vessels” similar to tank vapors, and would be deemed “unavoidably lost” production *not subject to royalty payments*. (The NDIC allows for a deduction of flared volume associated with crude conditioning because it is considered a beneficial use, *i.e.*, “safety”).<sup>50</sup>

As previously stated, while Bakken crude oil characteristics are substantially similar to other light crudes, the Bakken field has a significantly higher GOR and produces more gas than other basins and states that were considered by BLM to establish its proposed venting and flaring limits. In North Dakota, an operator could exceed the flaring and venting limits with tank vapors alone. The State of North Dakota uses a 97.91scf/bbl factor to estimate tank emissions for Bakken crude. With the proposed rule containing a 1.8 mmcf/month limit, and the state factor of 97.91 scf/bbl, a well location would be limited to 612 bbl/day. Thus, BLM should clarify that (1) tank vapors going to flare are not included in the threshold limitations of Sec. 3179.6; and (2) tank vapors going to flare are “unavoidably lost” under Section 3179.4(vii)—Evaporation from Storage Vessels.

Each new well has its own unique gas production rate that cannot be precisely predicted, even in existing fields where gas gathering is established. As a result, the NDPC requests the BLM provide a 180-day period after first production of each new well to comply with any flaring limits in the event that infrastructure needs to adjust to the new production level. This is an important consideration because gas gathering is a pressure system that must be continually rebalanced as new wells come online.

The Bakken is a young field with much more to be learned from an overall geological and production engineering perspective. For example, complicating present gas capture planning and infrastructure buildout, operators have experienced average IP gas rates and IP GORs increasing over the last few years, driven by improved completion technology and concentration in core areas. See Exhibit 2, NDPC Flaring Task Force Gas Rates. Advancements in technology and additional ultimate recovery of oil and gas will continue, however, in order to achieve further success it is critical regulations offer flexibility, reflect the unique characteristics of any particular basin such as the Bakken, and allow the operator to maintain operational decisions while still enforcing appropriate flaring limits and gas capture goals.

The NDPC calls on the BLM to reevaluate the limits proposed on flaring and consider a state-wide or basin approach when limiting flaring.

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<sup>50</sup> North Dakota Industrial Commission Order 24665 Policy/Guidance Version 102215.



### Section 3179.4 -- Royalty on Unavoidably Lost Production

Any attempt by BLM to require royalty payments on oil or gas that has been unavoidably lost or used in lease operations “is manifestly contrary to the Mineral Leasing Act . . . [and] arbitrary, capricious and an abuse of discretion.” *Marathon Oil Co. v. Andrus*, 452 F. Supp. 548, 553 (D. Wyo. 1978); *see also Gulf Oil Corp. v. Andrus*, 460 F. Supp. 15, 18 (C.D. Cal. 1978). The Interior Board of Land Appeals has explained how the *Marathon Oil* and *Gulf Oil* decisions led directly to the BLM’s issuance of NTL-4A:

Following this judicial rejection of portions of NTL-4, the Department ceased seeking payment of royalties [on] oil used in production and unavoidably lost gas and promulgated NTL-4A. See 44 FR 76600 (Dec. 27, 1979). In this Federal Register notice the Department acknowledged that certain provisions of NTL-4 had been revoked and stated that those provisions would be superseded by NTL-4A.<sup>51</sup>

Rulemakings by BLM promulgated after the *Marathon Oil* and *Gulf Oil* decisions were issued have similarly acknowledged that the Mineral Leasing Act does not permit BLM to assess royalties on production that is beneficially used or unavoidably lost. *See* Waste Prevention; Value Determination, 52 FR 3796-01 (February 6, 1987) (amending 30 C.F.R. 206.100) (“In 1925, the Secretary of the Interior decreed that no royalty will become due for unavoidably lost production, for gas vented or flared with proper approval, and for production used for lease activity. This interpretation was ratified by Congress in 1946.” (Emphasis added)).

NTL-4A constituted BLM’s attempt to conform to the unambiguous requirements of the Mineral Leasing Act, and under NTL-4A the economic feasibility of gas capture “is always relevant to a question [of] whether gas was avoidably lost,” even in cases where an operator has flared gas without first seeking approval from BLM.<sup>52</sup> Failure to take the economic feasibility of gas capture into account “would lead to potential waste of oil” and cause “premature abandonment” of productive oil wells.<sup>53</sup>

As justification for the Rule, BLM notes that the provisions of NTL-4A have not been modified in over 30 years and that NTL-4A has not always been applied uniformly among the state offices. While clarification within BLM offices of certain provisions of NTL-4A may be prudent, the proposed Rule completely emasculates long standing BLM policy and the fundamental principles of economic analysis relating to gas capture in determining “avoidably” and “unavoidably” lost oil and gas.

The Federal Register notice for this proposed rule states that the rule “clarif[ies] when flared or vented natural gas is subject to royalties.” However, the proposed rule, while superficially preserving the distinction between avoidably lost, unavoidably lost, and beneficially used gas ratified by Congress in 1946, constitutes a dramatic substantive change to BLM policy on flaring. “Avoidably lost” appears to now be a catch-all category encompassing most flaring activities

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<sup>51</sup> *Texaco, Inc.*, 135 IBLA 112, 113 (1996).

<sup>52</sup> *Maxus Exploration Co.*, 122 IBLA 190, 195 (1992).

<sup>53</sup> *Rife Oil Properties, Inc.*, 131 IBLA 357, 374 n.12 (1995).

currently conducted at federal wells in the Bakken. Further, economic considerations only appear to play a role under the proposed rule at Sec. 3179.7, which gives operators an opportunity to demonstrate that “the applicable limits [for flaring] would impose such costs as to cause the operator to cease production and abandon significant recoverable oil reserves under the lease.” This is a dramatic substantive change from NTL-4A.<sup>54</sup> It is also unclear to what extent the economic analysis envisioned by the agency under Sec. 3179.7 conforms with the analysis BLM performs when examining other oil and gas infrastructure issues. See Gregory R. Danielson & Sam Niebrugge, *Paying Well Determinations and Participating Areas*, 2014 No. 4 RMMLF-Inst. Paper No 5, at 5-4 (“For purposes of the Model Unit Agreement, ‘producing in paying quantities’ means the operator has drilled a well capable of producing unitized substances that will repay not only the costs of producing operations, but also drilling and completing costs, with a reasonable profit” (emphasis added)).

When an administrative agency adopts a new policy, it is not required to demonstrate that “the reasons for the new policy are better than the reasons for the old one.”<sup>55</sup> However, an agency does have an obligation to provide “more substantial justification” when it adopts a new policy that “rests upon factual findings that contradict those which underlay its prior policy; or when its prior policy has engendered serious reliance interests that must be taken into account.”<sup>56</sup> Infrastructure costs have been a key factor in BLM’s classification of flared gas as avoidably lost or unavoidably lost over the last forty years, and this policy has “engendered serious reliance interests” among oil and gas operators. BLM has given very little indication to date that these reliance issues were taken into account during the formulation of the proposed rule.

Section 3179.4 is a radical departure from NTL-4A in determining unavoidable flaring from connected wells. The BLM acknowledges that most flaring in the Bakken is from connected wells, however, the Waste Prevention Rule would categorize flared gas from connected wells with no market as avoidable flaring and royalty bearing. In the latest production statistics, of the 11% total flared gas in North Dakota, 73% of the 11% flared was from connected wells.<sup>57</sup> Gas with no market has no value, period. NDPC strongly opposes a *per se* rule that all flared gas from connected wells constitutes avoidably lost gas and royalty bearing.

As discussed throughout our comments, there are multiple reasons intermittent flaring occurs from connected wells including pipeline capacity constraints, pipeline maintenance operations, processing and compressor upgrades, the addition of new wells to the system, all requiring a constant rebalancing of the gathering systems. Flaring from existing wells connected to pipelines is simply part of normal operations. While costly additional system upgrades may reduce flaring from connected wells, it will not eliminate it.

North Dakota does not impose royalties on flared gas from *connected* wells. Assuming the operator complies with N.D.C.C. Section 38-08-06.2 (requiring connection within one year) upon connecting the well to a gas gathering system the royalty obligation for future flared gas ceases.

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<sup>54</sup> See *Rife Oil Properties, Inc.*, 131 IBLA at 374 n.12; *Maxus Exploration Co.*, 122 IBLA at 195.

<sup>55</sup> *F.C.C. v. Fox Television Stations, Inc.*, 556 U.S. 502, 515 (2009).

<sup>56</sup> *Perez v. Mortgage Bankers Ass’n*, 135 S. Ct. 1199, 1209 (2015) (quoting *Fox Television Stations*, 556 U.S. at 515).

<sup>57</sup> <https://ndpipelines.files.wordpress.com/2012/04/ndpa-monthly-update-april-15-2016.pdf>.

The BLM has also previously recognized flared gas from connected wells is not automatically royalty bearing.<sup>58</sup> Yet, in its comments justifying imposing royalties on flared gas from connected wells, BLM presumes, for example, that flared gas from existing wells caused by new wells coming on line at high volumes and pressures could be resolved merely by “the BLM could limit the volume of production from the new well for a period of time, ...” This ignores the importance of allowing new wells to produce at maximum efficient rate for a period of time to evaluate the reservoir data and to protect the reservoir from damage. Also, BLM would have no authority to limit production from new wells located on 100% non-federal and non-Indian lands.

It is also presumed by BLM that any flaring from connected wells is simply the operator’s fault or choice. This again is incorrect. Any particular operator does not have control over the pipeline gathering system, does not have control over decisions when and where operators’ new wells come on line, does not have control of system upgrades, maintenance and timing of such events, and should not be required to shut in or curtail production damaging the reservoir simply to avoid *intermittent* flaring from a connected well.

NDPC submits flaring from connected wells should not be automatically royalty bearing in Section 3179.4, rather should be designated as “unavoidably lost”.

Section 3179.4 and 3179.6 also do not consider force majeure events in determining restrictions on flaring or classification of avoidably lost or unavoidably lost for royalty purposes. North Dakota expressly recognizes force majeure events beyond the operator’s control and exempt the operator from flaring thresholds (and royalties) subject to written documentation from the gas gatherer confirming the event.<sup>59</sup> Force Majeure events can include downtime for system upgrades, emergency repairs, or delays in obtaining right-of-way permits beyond the gatherer’s control.

NDPC requests BLM consider Force Majeure events that are beyond the operator’s control be incorporated in Sections 3179.4 and 3179.6

**Remote Gas Capture Technology.** The BLM has overstated forecasted market pricing of natural gas and liquid products, has vastly overstated the capabilities of current remote gas capture technologies, and has not adequately examined the costs associated with remote capture.

A. Commodity Price Assumptions:

The BLM, in its economic analysis of remote capture, presumes a net price of natural gas at \$4 mcf. However, natural gas prices are at historic lows and it is generally believed prices will remain below \$4 mcf for an extended period. As of February 29, 2016, the Henry Hub spot price for natural gas was \$1.62 mcf. *See also* U.S Energy Information Administration, Henry Hub Natural Gas Spot Price, <http://www.eia.gov/dnav/ng/hist/rngwhhdM.htm> (Nov. 4, 2015) (showing the September 2015 spot price as the lowest September price in fourteen years); and EIA Short-Term

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<sup>58</sup> See SDR No. 922-15-07 at p. 8 (Feb. 11, 2016).

<sup>59</sup> See North Dakota Industrial Commission Order 24665 Policy/Guidance Version 102215, assessable at <https://www.dmr.nd.gov/oilgas/GuidancePolicyNorthDakotaIndustrialCommissionorder24665.pdf>.

Energy Outlook (Feb. 2016) downgrading gas prices in 2016 and 2017 to \$2.72/MCF and \$3.32/MCF from \$3.80 and \$3.91/MCF.

The BLM's economic analysis has multiple other flawed assumptions beyond Henry Hub price projections. The BLM analysis does not appear to include costs of labor and construction on capital investment, but even more importantly the analysis does not recognize pricing scenarios based on a true "net back" price—the price actually received by the operator after deducting post-production costs for transportation, processing, and treating charges, all of which have associated costs.

Additionally, the BLM has not considered the current market conditions for NGLs—which is especially important in North Dakota with the associated gas being very rich in liquids. Current NGL prices are below \$0.30 per gallon. The Energy & Environmental Research Center ("EERC") projects a "break even" price to capture NGLS at \$0.59 per gallon, along with other assumptions.<sup>60</sup>

Combined, these significant decreases in pricing undermine the revenue and benefit analysis modeled in the RIA and indicate the RIA is based on flawed assumptions, resulting in significantly inaccurate conclusions that were used to justify the Waste Prevention Rule.

#### B. Limitations on remote gas capture technologies.

The BLM refers to four technologies to capture gas: gas pipelines, CNG, NGL recovery, and Gas to Electrical Power. Of these four, NDPC submits only gas pipelines are currently an economic and effective method to increase gas capture. The EERC evaluated the economics of dozens of remote capture technologies available to producers and concluded that not one of these technologies met the economic threshold. This evaluation was conducted during a period of higher oil and gas prices and today the end results would show even more dire economics.<sup>61</sup>

The RIA and referenced Carbon Limit's report understate the commercial limitations to CNG and Gas-to-Power that significantly reduce the economics. First, the CNG model to transport 'wet' or unprocessed gas to a processing facility is limited by driving distance. The distance from the flaring location to the injection site (or processing plant) must be short. According to the referenced report, 25 miles is considered the upper limit of transportation distance. Looking at federal lands in the Bakken, a significant portion of those leases are simply too far away to be economic for CNG. This economic radius is further compressed by a reduced commodity price environment. Additionally, the 25-mile radius is contingent on road distance instead of straight-line, and is also a function of time (shorter cycle time = less storage, less capital). Even shorter hauls can be made uneconomic if travel times are long for short distances due to lower road speed on unpaved roads. Furthermore, the RIA understates the amount of wellhead gas consumed in the compression operations which reduces the amount of captured product being monetized. Finally, neither the RIA nor Carbon Limits recognize that capital investment is required to be able to offload the CNG

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<sup>60</sup>[http://www.undeerc.org/flaring\\_solutions/pdf/ND%20Flaring%20Statistics%20Update%20December%202015.pdf](http://www.undeerc.org/flaring_solutions/pdf/ND%20Flaring%20Statistics%20Update%20December%202015.pdf)

<sup>61</sup> [http://www.undeerc.org/flaring\\_solutions/Files-Reports.aspx](http://www.undeerc.org/flaring_solutions/Files-Reports.aspx).

at a processing plant and there is an associated fee to process the gas through the receiving facility. These additional capital and tolling fees further reduce the economics of this option.

Commercially, this process is complex and requires excess processing capacity in near proximity to the location that is flaring. In any developing basins with lacking or lagging infrastructure, processing capacity is often limited. In basins with limited processing infrastructure, there is not a place to put this CNG because the CNG specifications make it incompatible for interstate transport pipelines to move gas to less constrained processing complexes. Additionally, the midstream companies that own the processing complexes are not incentivized to work with the CNG-providers if they are near processing capacity since they would miss out on the business opportunity to earn a higher margin by providing gathering and processing services.

The RIA similarly understates the complexities the of Gas-to-Power (grid) solution. In order to fully utilize the amount of energy consumed on a pad from a flare, it requires the well operator to sell power to the grid. On-pad use does not require enough gas to significantly reduce the flared volumes. Grid sales provide a few challenges since power sales require transmission lines from the pads, which can require the same easements that gas pipelines require and can be as difficult to acquire. Power infrastructure takes time to be built and is expensive; and such transmission lines are not going to be an agile solution as most flaring today occurs intermittently.

Gas-to-power may also decrease the wellhead value of the gas since burning NGLs for fuel value (natural gas value) may be less economic than processing and selling separately. These economics have driven to pipeline solutions over alternative monetization paths.

Finally, the EERC estimates there are currently 250 natural gas generators deployed in the Bakken, predominately well site power applications of 100kw to 5 MW. However, the EERC does not expect gas-to-electrical-power to expand, if anything, the EERC suggests that on-site electrical power production will decrease due to expansion of the state's grid infrastructure which is expected to displace on-site gas power generation combined with the low price for power, which makes economics of grid-interconnect challenging at the well site.<sup>62</sup> The BLM also has not considered local power market conditions and how differences between regulated markets impact availability to the grid interconnect. Electrical suppliers in rural North Dakota consist of county cooperatives that purchase power from large centralized power plants. Enabling gas-to-power at the grid level is completely reliant upon the local cooperative, which is typically beyond the operator's control. In sum, NDPC submits well site gas-to-electrical power is not a realistic technology to provide any meaningful alternative for gas capture.

NGL remote gas capture technologies have been the most utilized in North Dakota to date.<sup>63</sup> However, besides economic limitations and poor prices for NGL products, the technology has faced other challenges including inability to operate efficiently (or at all) in North Dakota's winter climate conditions as well as design constraints with multi-well pads. Under NDIC rules, NGL skids must be located 150 feet from any combustible device—requiring greater surface disturbance

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<sup>62</sup> *Id.*

<sup>63</sup> Approximately 60% to 80% of remote capture in North Dakota has been accomplished via NGL recover. *Flaring Statistics and Remote Hydrocarbon Capture and Utilization*, Energy and Environmental Research Center (Dec. 2015).

and surface use area at the well pad, which is contrary to BLM's increased emphasis for a reduced surface footprint.<sup>64</sup> Finally, even where NGL recovery is successful, the recovery efficiency only ranges between a 30% and 50% volume reduction<sup>65</sup> with the remaining gas stream being flared.

C. Actual remote gas capture economics in the North Dakota Bakken Field.

North Dakota operators that have previously evaluated the use of remote capture technologies have generally found them to be "uneconomic at any scale." Exhibit 3 – Declaration of Darrell Nodland ¶ 4 (further noting that "[t]he lease cost of the remote capture units...are far greater than the value of the natural gas liquids they produce at current prices"); see also Exhibit 4 – Declaration of Brent Miller ¶ 3<sup>66</sup> ("Our efforts to date establish that remote capture technology is uneconomic and will not alleviate flaring or resolve pipeline capacity and constraint issues."); Exhibit 5 – Declaration of Jeff Hume ¶ 6 (noting the company's ongoing evaluation of remote capture alternatives have "consistently led Continental to conclude the technologies are not economically viable given their substantial cost in comparison to the nominal value of gas being flared.")

For specific examples, NDPC refers the BLM to the Declaration of Brent Miller filed in SDR-922-15-07 (See Exhibit 4), which sets forth two recent case studies relating to remote capture economics. The first is a theoretical study incorporating the actual average costs and revenues incurred for over 15 North Dakota Bakken/Three Forks well locations during 2014. Exhibit 4 – Declaration of Brent Miller, ¶ 5. The 2014 study showed average costs of \$874,430 per well, and a net loss of \$36,755 per well, based on 2014 gas prices; however, under October 2015 gas prices it would have resulted in a net loss of \$657,620 per well. *Id.* The second involves an actual remote gas capture project in McKenzie County that ran for four months from July 2015 through October 2015. *Id.* ¶ 6. While the project extracted 266,793 gallons of NGL, the project cost \$612,792 and only generated \$226,774 in revenue, resulting in a net loss of \$386,018. *Id.* At more current prices, the extracted NGLs would have only generated \$58,694 in revenue, leading to a net loss of \$554,098. *Id.*

Even for wells already connected to a gas gathering system, the revenue generated by captured gas is in many cases too small to justify the significant infrastructure investments needed to address flaring caused by existing capacity issues, and BLM must consider equipment and infrastructure costs when evaluating the economics of gas capture. This becomes especially apparent when the economics of remote capture technology are examined. As the Interior Board of Land Appeals has noted, "[t]he fact that locating a compressor at every surface pad would be uneconomical and would not make sense is undoubtedly broadly true in almost any situation involving production from multiple wells and surface pads in a particular area (and for those reasons, no lessee is likely to do so)."<sup>67</sup> Requiring lessees to make uneconomic investments to capture and market gas is irrational, wasteful, and arbitrary and capricious. Finally, a rule that does not take the economic feasibility of gas capture into account "would lead to potential waste of oil."<sup>68</sup>

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<sup>64</sup> NDIC Admin. R. 43-02-03-28 (Safety Regulation).

<sup>65</sup> *Id.* See Note 41.

<sup>66</sup> Filed with SDR-922-15-07

<sup>67</sup> Plains Exploration & Production Co., 178 IBLA 327, 342-43 (2010).

<sup>68</sup> *Rife Oil Properties, Inc.*, 131 IBLA at 374 n.12.

While NDPC strongly asserts current remote capture technologies are not presently economic or otherwise viable options to substantially reduce flaring in North Dakota, the NDPC supports further research and advancement of alternative remote capture technologies, however, operators must not be mandated to implement remote capture technologies forcing a substantial economic loss upon industry. In the alternative to the proposed Rule, NDPC encourages BLM to consider North Dakota Industrial Commission Order 24665 which provides flexibility throughout and while it encourages and *incentivizes* the use of remote capture technologies, the NDIC does not mandate remote capture technologies if its use would clearly be uneconomic.<sup>69</sup>

**BLM has failed to consider that pipeline rights-of-way delays contribute to flaring in establishing its venting and flaring limits thus imposing royalties on unavoidably lost gas, and has failed to consider possible actions the federal agencies could undertake to expedite pipeline infrastructure.**

Delays in the processing and approval of federal and tribal rights-of-way for gas pipelines, along with the inability to obtain easements from a small minority of private owners, have substantially contributed to the continued need to flare gas from Bakken and Three Forks wells in North Dakota. This fact has not been adequately considered by the BLM. These issues have delayed needed pipeline system upgrades to relieve flaring from connected wells, and have additionally delayed or prevented unconnected wells from connecting to a pipeline.

In the 2013 Environmental Assessment conducted by the Montana-Dakota's State Office, the EA expressly acknowledges the inability to obtain rights-of-way from private, federal, and tribal owners as a legitimate justification for flaring.<sup>70</sup> And, in a February 11, 2016, Decision Record, the BLM State Director's Decision provided:

The BLM understands the difficulties and delays in obtaining rights-of-way, and agrees that when a Sundry Notice flaring request and a right-of-way application have both been properly filed, *the venting and flaring of gas will be considered "unavoidably lost," pending the right-of-way approval.*<sup>71</sup>

The North Dakota Industrial Commission also grants exceptions to its flaring-related production restrictions in the event of a pipeline delay caused by private landowners, in addition to delays caused by other governmental regulations or agency permit delays.<sup>72</sup> While both the North Dakota Industrial Commission and the BLM State office recognize pipeline rights-of-way contribute to flaring (without imposing royalties), the Waste Management Rule does not.

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<sup>69</sup> N.D.C.C. § 38-08-06.4(6) expressly provides a producer may obtain an exemption from employing remote capture technologies if it is "economically infeasible."

<sup>70</sup> See Environmental Assessment #DOI-BLM-MT-C030-2013-229-EA at p. 22

<sup>71</sup> SDR No. 922-15-07, at p. 12. (emphasis added).

<sup>72</sup> North Dakota Industrial Commission, *Order 24665 Policy/Guidance, Version 102215*, available at <https://www.dmr.nd.gov/oilgas/GuidancePolicyNorthDakotaIndustrialCommissionorder24665.pdf>. The guidance document notes that "[f]lexibility will be provided in the form of temporary exemptions from production restrictions after notice and hearing if the following extenuating circumstances are validated: 1) surface landowner, tribal, or federal government right-of-way delays." *Id.* at 4 (emphasis added).

On private lands, the Waste Prevention Rule does not take into consideration the fact that operators and pipeline companies in North Dakota must negotiate consensual easement agreements with landowners for all gathering lines. North Dakota's eminent domain laws are highly restrictive and of little avail to companies for the purposes of acquiring gathering line easements. Unlike oil and gas producing states such as Oklahoma and Texas, "quick take" eminent domain in North Dakota is strictly prohibited for private corporations by Article I, Section 16, of the State's Constitution. Thus, a single landowner in North Dakota, owning less than 1% of the land a ten-mile pipeline needs to cross, can hold up a project indefinitely (or prevent a pipeline from being constructed at all, if an alternative route is not available). If the "quick take" eminent domain remedies that other states allow were available in North Dakota, this would not be an issue.

On Tribal and Federal lands, one operator active on the Fort Berthold Indian Reservation has estimated that the process for obtaining Bureau of Indian Affairs ("BIA") approval for pipeline construction on property subject to NEPA jurisdiction will typically take at least 49 weeks. Exhibit 6 – Declaration of Shane Henry ¶ 6.<sup>73</sup> In addition, to provide the BLM with a handful of actual examples, NDPC has obtained information on specific wells that have been prevented or delayed from connecting to a gas gathering system due to delays in approving requests for pipeline right-of-way on federal or tribal land:

*Bears Ghost USA 31 pad (147N-94W-Sec. 4; two wells)* – An existing "backbone" gas pipeline runs only a few hundred feet from this well pad. However, the pipeline operator has been waiting for over a year for BIA to resolve what has been characterized as a "trespass issue" on a nearby tribal tract. As a consequence, the wells on this pad have been unable to tie into the pipeline. Exhibit 3 – Declaration of Darrell Nodland ¶ 6.

*TAT USA 13-23H pad (151N-94W-Sec. 22; one well)* – The well on this pad has been producing since February 2011. A pipeline operator has been attempting to connect this well to its system for at least two years – it was unable to obtain consent from an allottee for its original proposed route to tie into this well. The pipeline operator has submitted an alternate route to BIA, and only received approval on October 19, 2015 to finally proceed with construction.<sup>74</sup>

*Multiple wells operated by Enerplus Resources* – Enerplus has experienced an eight month delay in connecting wells on one of its pads to a gas pipeline, due to delays in right-of-way approval. Exhibit 6 – Declaration of Shane Henry ¶ 5. Pipeline connection for a second pad was delayed by twenty months due to right-of-way approval issues and an issue involving the Three Affiliated Tribes' Employment Rights Office.<sup>75</sup>

As already noted, North Dakota is a unique and challenging environment for right-of-way acquisition. In addition, pipeline companies operating in North Dakota face significant federal permitting challenges (including the potential need for multiple agency approvals from some or

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<sup>73</sup> Filed in SDR-922-15-07.

<sup>74</sup> *Id.*

<sup>75</sup> *Id.*



all of BLM, United States Forest Service, United States Fish and Wildlife Service, Corps of Engineers, Tribal Business Council, individual allottees, and BIA) when attempting to construct a gas gathering pipeline. Despite these complications and challenges, North Dakota operators and pipeline companies have invested \$11 billion in an attempt to reduce the amount of gas flared from oil wells in the state, and this effort has already reduced flaring percentages by nearly 50% in less than two years. Unfortunately, the BLM essentially ignores this investment and effort and ignores the State's Gas Capture regulatory scheme and the enormous success achieved by substantially improving gas capture, while simultaneously maintaining production from federal, tribal, and fee minerals. Instead, the BLM seeks to impose arbitrary flaring limits with no flexibility, require royalties on flared gas with no value and require curtailment of production or the unnecessary shutting in of wells, all the while not considering matters entirely within its jurisdiction and authority to expedite necessary pipeline rights-of-way approvals.

NDPC urges BLM to not impose royalties or flaring limits when flaring occurs because of right-of-way and permitting delays.

### **THE BLM GAS FLARING THRESHOLDS AND THE ECONOMIC CONSEQUENCES**

**The Waste Prevention Rule will result in curtailment of oil production on the Fort Berthold Indian Reservation and other federal lands resulting in a loss of revenue to the Three Affiliated Tribes and the general public.**

#### Background

The Fort Berthold Indian Reservation ("FBIR") is strategically located near the center of the Bakken exterior field boundaries. The Bakken is an economic engine for the Three Affiliated Tribes, providing revenue and needed jobs. In February 2016, FBIR contributed 168,074 BOPD of the State's 1,118,333 BOPD. Over 1,400 wells have been drilled in FBIR with 980 on Trust lands and 455 on Fee lands. While the majority of oil and gas minerals are owned by the United States, in Trust, for The Three Affiliated Tribes and individual allottees, a significant portion of the Reservation has a "checkerboard" ownership pattern consisting of fee, tribal and state owned mineral interests.

The Supreme Court has long recognized "the distinctive obligation of trust incumbent upon the United States Government" with regards to matters affecting Indian Tribes.<sup>76</sup> As trustee of federal Indian lands, the Government is held to the "most exacting fiduciary standards" in protecting the

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<sup>76</sup> *Seminole Nation v. United States*, 316 U.S. 286, 296, 62 S. Ct. 1049, 1054, 86 L. Ed. 1480 (1942); *see also Cherokee Nation v. State of Georgia*, 5 Pet. 1, 8 L.Ed. 25; *United States v. Kagama*, 118 U.S. 375, 6 S.Ct. 1109, 30 L.Ed. 228; *Choctaw Nation v. United States*, 119 U.S. 1, 7 S.Ct. 75, 30 L.Ed. 306.

interests of Indian beneficial owners.<sup>77</sup> This trust obligation extends to all government officials, whether they are local federal employees or decision-makers directing federal policy.<sup>78</sup>

The federal government's trust obligations are strong in cases where Indian lands or mineral interests are involved, *see Pawnee v. United States*, 830 F.2d 187, 190-91 (Fed. Cir. 1987), as federal statutes and regulations give the Government full responsibility to manage Indian resources and land for the benefit of the Indian owners.<sup>79</sup> With regards to oil and gas development, two central purposes behind the Indian Mineral Leasing Act of 1938 (25 U.S.C. § 398a-398e) and the Indian Mineral Development Act of 1982 (25 U.S.C. § 2101-2108) were to increase tribal authority in granting leases, and to protect the Indians' *economic* return in their property. These acts define the Secretary's responsibility in regard to federal Indian oil and gas development, and they obligate the Secretary to maximize consideration and protect Indian royalty payments.<sup>80</sup> These responsibilities include that the federal government "[e]nsure the maximum value is realized from the oil and gas resources." *Fort Berthold Agency Oil and Gas Division Funding Plan*, United States Department of the Interior, Bureau of Indian Affairs, July 2008.

While NDPC understands the intent of the Waste Prevention Rule is to reduce flaring, emissions, and allegedly increase royalties on gas, in reality, the effect of the rule will result in the curtailment of production and/or the shutting in of oil production now and in future years, causing very significant (and immediate) loss of economic return to the Tribe, its members, and the general public that will never be recovered.

#### Tribal Economic Loss if the Flaring Thresholds are adopted.

Utilizing the North Dakota Industrial Commission's January 2016 production statistics, NDPC has reviewed and compared the proposed 1800/3600/7200 mcf thresholds to the most recent actual production statistics in order to calculate the potential effect in loss of oil revenue to the Tribe. While the far majority of existing wells do not exceed the flaring threshold, the analysis shows that 17 wells currently exceed 7200 mcf, an additional 23 wells exceed 3600 mcf, and a total of 98 wells exceed 1800 mcf. *See Exhibit 7, NDPC FBIR Analysis.* For purposes of the analysis, the following assumptions were made<sup>81</sup>:

- 30% of production from wells exceeding the flaring thresholds would require curtailment (or shut-in).

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<sup>77</sup> *Coast Indian Cmty. v. United States*, 550 F.2d 639, 652 (Ct. Cl. 1977); *United States v. Mason*, 412 U.S. 391, 398, 93 S.Ct. 2202, 37 L.Ed.2d 22 (1973).

<sup>78</sup> *Seminole Nation v. United States*, 316 U.S. 286, 297, 62 S. Ct. 1049, 1054, 86 L. Ed. 1480 (1942); *Coast Indian Cmty. v. United States*, 550 F.2d 639, 653 (Ct. Cl. 1977).

<sup>79</sup> *See United States v. Mitchell*, 463 U.S. 206, 224, 103 S. Ct. 2961, 2971-72, 77 L. Ed. 2d 580 (1983).

<sup>80</sup> *Pawnee v. United States*, 830 F.2d 187, 190-91 (Fed. Cir. 1987).

<sup>81</sup> NDPC acknowledges the estimates on lost revenue are obviously dependent upon price and the amount of curtailment required under any given month's production, the "averaging" of flaring of all wells in a spacing unit, and that many other factors would affect the percentage of curtailment month to month, including pipeline capacity constraints and maintenance downtime. However, under any scenario, whether the price was higher or lower, or whether actual curtailment was higher or lower, the lost revenue to the Tribe over the next several years would be significant.

- Oil price \$40/barrel, gas \$1.65 mcf.
- The Tribe and/or allottees own an average of 50% mineral interest in the spacing unit (which may be lower than actual).
- For comparison of oil versus gas economic value, presumed that 100% of the presently flared gas could theoretically have been captured and marketed.
- The Tribe currently receives production tax of 5% on gross oil production.
- Tribal lease net revenue interest for each spacing unit at 9% (18% Lease royalty x 50% mineral interest).

#### Economic loss of 7200 mcf threshold:

In January 2016, 17 FBIR wells exceeded the 7200 mcf threshold. The 17 wells produced 234,428 barrels, sold 77,623 mcf gas and flared 223,018 mcf. Assuming, arguendo, that all of the flared gas was captured and sold, the net royalties to the Tribe for the gas would be \$33,118.17. However, if production had been curtailed to meet a 7200 mcf threshold, the Tribal share of lost oil royalty and production tax on the curtailed oil production would be \$393,118.17 for one month, or \$4,717,416.00 loss in oil royalties and tax revenue over a one-year period.

#### Economic Loss of 3600 mcf threshold:

In January 2016, 23 FBIR wells flared gas between 3600 and 7200 mcf threshold. These 23 wells produced 205,850 barrels, sold 143,509 mcf gas and flared 122,345 mcf. For the 40 wells flaring more than 3600 mcf, and assuming that all of the flared gas was captured and sold, the net royalties to the Tribe for the gas would be \$51,286.21. However, if production had been curtailed to meet a 3600 mcf threshold, the Tribal share of lost royalty and production tax on curtailed oil production would be \$739,667.04 for one month, or a \$8,876,004.00 loss in oil royalties and tax revenue over a one-year period.

#### Economic Loss of 1800 mcf threshold:

In January 2016, 58 FBIR wells flared gas between the 1800 and 3600 mcf threshold. These 58 wells produced 521,046 barrels, sold 455,862 mcf gas and flared 142,004 mcf. For the 98 FBIR wells flaring more than 1800 mcf, and assuming that all of the flared gas was captured and sold, the net royalties to the Tribe for the gas would have been \$72,374. ***However, if FBIR production had been curtailed to meet a 1800 mcf threshold, the Tribal share of lost royalty and production tax on curtailed oil production would be \$1,615,024.32 for one month, or a \$19,380,288.00 loss in oil royalties and tax revenue over a one-year period.***

The foregoing economic analysis only refers to lost revenue as a result of curtailment due to flaring limits and does not consider the overall impact of the burdensome Waste Management Rule and other proposed federal regulations discouraging development on Federal and Indian lands (i.e., Onshore Order Nos. 3, 4, 5, and proposed EPA regulations). The combined effect of these threatened rules appears to have already negatively impacted production levels from Federal and Indian lands.

The FBIR has previously contributed approximately 17% or more of the State's total oil production. Obviously, low commodity prices have resulted in an overall, substantial decline in drilling activity in North Dakota (including FBIR) and other states. However, a review of the NDIC production records finds that while the State's total production has declined by 57,981 BOPD from November 2015 to February 2016, production from FBIR declined 31,888 BOPD constituting 55% of the State's production decline. **And, in the most recent monthly production report, production declined 8,748 BOPD on FBIR while State production outside of FBIR increased by 4,619 BOPD.**<sup>82</sup> Further, drilling activity on FBIR has dropped considerably more as well, with February FBIR rig count at four drilling rigs, dropping from approximately 20% of the State's active drilling rigs to only 13%.

NDPC believes BLM has failed to consider and has grossly miscalculated the negative economic impact its proposed rules will have on present and future operations, production levels, and royalty income on federal and Indian Lands.

**The Waste Prevention Rule, if adopted and 1800 mcf enforced, will require multiple FBIR and other Federal wells to curtail and shut-in, resulting in reservoir damage and loss of future recoverable reserves.**

As discussed at pages 9-10, the repeated shutting in or limiting production from hydraulic fractured wells ("cycling") results in the loss of conductivity of the fractures causing permanent damage to the hydraulic fracture. The implementation and enforcement of the Waste Management Rule will require repeated cycling for both existing and future wells in order for operators to comply with the Rule. While the overall loss of ultimate recovery cannot be easily quantified, the loss of recoverable reserves would be substantially in excess of the value of the gas currently being flared.

**Federal agency action to expedite rights of way approval on FBIR and Federal lands will have far greater impact in reducing flaring than mandatory limits.**

Throughout our comments, NDPC cannot stress enough the importance of pipeline infrastructure in achieving gas capture goals and reductions in flaring. The Waste Management Rule fails to consider any actions the federal government could or should undertake to improve the pipeline right-of-way approval process on Indian and Federal lands which would achieve a far greater positive impact on gas capture, elimination of waste and reducing emissions.

### **Regulatory Taking**

BLM has concluded that under Executive Order 12630, "the proposed rule would not have significant takings implications. A takings implication assessment is not required." NDPC does not agree and believes there exists scenarios under which a regulatory taking could occur if the proposed Rule was applied to the unique characteristics in the Bakken.

Operators have invested significant resources in developing North Dakota's abundant oil and natural gas resources. In doing so, producers expect a certain return on capital investments in order to continue with current and future development. The proposed rules will have an economic impact that will interfere with distinct investment backed expectations of operators, and in some

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<sup>82</sup> <https://www.dmr.nd.gov/oilgas/directorscut/directorscut-2016-04-15.pdf>.

circumstances could constitute a regulatory taking under the Fifth Amendment. “In order to establish a regulatory taking, [Plaintiff] was required to show that the regulation had an economic impact that interfered with “distinct investment-backed expectations.”<sup>83</sup> “Because the statute made it *commercially impracticable* to mine the coal, . . . and thus had nearly the same effect as the complete destruction of rights claimant had reserved from the owners of the surface land, . . . the Court held that the statute was invalid as effecting a “taking” without just compensation.”<sup>84</sup>

Should technological infeasibility and economic burdens of the Waste Management Rule render development on certain federal and tribal lands, including those within a CA, to be *commercially impracticable*, a regulatory taking would occur. NDPC does not assert that the adoption of the Waste Management Rule would amount to a regulatory takings on all federal and Indian lands. However, there are circumstances where the rule, as presently drafted, could constitute a takings by making certain lands “commercially impracticable” to develop. For example, consider the implications of a well being drilled subject to the following conditions: (1) a flaring limit of 1800 mcf on new wells; (2) requirement that gas cannot be flared above the limit during flow back or initial production (i.e., compare to NDIC which allows flowback for 14 days and to produce at the MER for the first 90 days); (3) BLM restricts production the first 90 days (or more) thereby destroying reservoir fracture connectivity; (4) lack of pipeline infrastructure or capacity so BLM requires operator to implement uneconomic remote capture; and (5) the well does not qualify for the strict “alternative flaring” provisions. This would result in the operator being unable to economically develop its leasehold—and, accordingly, a regulatory taking. A takings implication assessment should be required pursuant to Executive Order No. 12630.

At a minimum, the Waste Management Rule will abolish any incentive to develop on federal lands and steer producers to focus their operations on private and state lands (as may already be occurring—see FBIR discussion at pages 26-28). With incentive to develop on non-federal and non-Indian lands, the ensuing result is a halt of production on federal and Indian lands. Ironically, this promotes the exact consequences the BLM seeks to avoid, i.e., waste of resources and loss in royalties. With operations on federal lands ceasing because of commercial impracticability, the effect of the rule will be to strip operators of the rights in development they once had. Investment expectation is what promoted Bakken development in the first place.

### **Regulation of Air Emission should be left to the EPA and States**

Regulation of air emission should remain with the EPA and the states who have jurisdiction over this area. The NDPC incorporates by reference the API’s jurisdictional comments providing a detailed overview of the EPA’s and states regulatory framework over air emissions.

The BLM acknowledges the efforts taken by EPA, various states and industry to reduce flaring.<sup>85</sup> Specifically, the EPA’s 2012 adoption of the Clean Air Act new source performance standards (NSPS) and the EPA’s current proposal to amend these standards to further regulate volatile

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<sup>83</sup> *Cablevision Sys. Corp. v. F.C.C.*, 570 F.3d 83, 98 (2d Cir. 2009) citing *Penn Cent. Transp. Co. v. City of New York*, 438 U.S. 104, 127-28 (1978).

<sup>84</sup> *Penn Cent. Transp. Co. v. City of New York*, 438 U.S. 104, 127-28 (1978) citing *Pennsylvania Coal Co. v. Mahon*, 260 U.S. 393 (1922) (citations omitted) (emphasis added).

<sup>85</sup> 81 Fed. Reg. 6618.

organic compounds and methane.<sup>86</sup> The BLM went on to further highlight North Dakota's, "[I]nnovative program to phase down flaring by operators across the State, requiring 91 percent gas capture by 2020."<sup>87</sup> In pursuing its objectives, the BLM recognizes, [I]t is important to ensure that updated BLM requirements do not subject operators to conflicting or redundant requirements.<sup>88</sup> However, the BLM's Waste Management Rule only duplicate or conflict with current EPA and North Dakota regulations and practices, and conflict with its own stated policy objectives.

The BLM seeks to infringe on EPA and state authority to regulate specific source emissions without providing a legal framework granting it such a right. The EPA has been granted authority to regulate air quality and associated impacts of climate change through the provisions of the Clean Air Act ("CAA").<sup>89</sup> The EPA and the states, under traditional principals of federalism, are charged with this regulatory duty. "[A]ir pollution prevention ... and air pollution control at its source is the primary responsibility of States and local governments; ... Federal financial assistance and leadership is essential for the development of cooperative Federal, State, regional, and local programs to prevent and control air pollution."<sup>90</sup> Further, on March 10, 2016 the Obama Administration and EPA announced its plan to develop comprehensive regulations to reduce methane emissions from existing sources from the oil and gas industry.<sup>91</sup> The BLM's attempt to regulate methane emissions is premature and in direct conflict with the EPA's existing and forthcoming regulations in this area.

The BLM's attempt to regulate methane emissions circumvents the comprehensive regulatory regime of the EPA and states. The EPA has been tasked with developing concentration levels, National Ambient Air Quality Standards (NAAQS), for identified pollutants.<sup>92</sup> In the processing of establishing NAAQS, impacts on human health and the environment are evaluated from scientific data, reviewed, and provided to the public for comment. Once NAAQS are established, states identify areas where NAAQS are in compliance and where they are not. States are then tasked with developing a State Implementation Plan (SIP) to ensure areas continue to meet the NAAQS, or to provide for appropriate steps to come within NAAQS compliance. States are left with the discretion and ability to decide who they will regulate and what regulations they will impose. States are left to consider a wide variety of factors when drafting a SIP, including impacts on the industries most vital to the state's economy, as well as impacts on the local environment. The state is best positioned to know what regulations will work best for its residents, industries, and environment. The SIP continues on through an EPA review process. The Waste Management Rule discounts the EPA regulatory process and leave North Dakota with little say in regulating an industry it knows best.

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<sup>86</sup> *Id.*

<sup>87</sup> *Id.* citing North Dakota Industrial Commission Order 23665 Policy Guidance Version 102215.

<sup>88</sup> 81 Fed. Reg. 6618.

<sup>89</sup> 42 U.S.C. § 7401 (2015), *et seq.*

<sup>90</sup> *Id.* at 7401.

<sup>91</sup> See, Addressing Greenhouse Gases and Smog forming VOCs from the Oil and Gas Industry, Methane, Oil and Natural Gas Air Pollution Standards, United States Environmental Protection Agency <https://www3.epa.gov/airquality/oilandgas/methane.html> (last updated March 3, 2016).

<sup>92</sup> See 40 C.F.R. Part 50 (detailing existing NAAQS for sulfur dioxide, particulate matter, nitrogen oxide, carbon monoxide, ozone and lead).

### Cumulative NEPA Review Required

The National Environmental Policy Act (NEPA), “is a procedural statute that does not mandate particular results, but simply provides the necessary process to ensure federal agencies take a *hard look* at the environmental consequences of their actions.”<sup>93</sup> The NDPC asserts the BLM did not take this *hard look* when conducting its Environmental Analysis (EA) of the proposed rule and evaluating its likely consequences. The purpose of an EA is to provide analysis for proposed action to determine if the action will have significant effects requiring an Environmental Impact Statement (EIS) to be conducted.<sup>94</sup>

Each agency of the Federal Government is required to comply with Council on Environmental Quality (CEQ) regulations to “the fullest extent possible” unless a specific agency law exists prohibiting compliance.<sup>95</sup> The CEQ regulations provide that, “[p]roposals or parts of proposals which are related to each other closely enough to be, in effect, a single course of action shall be evaluated in a single impact statement.”<sup>96</sup> The interrelatedness of the BLM’s proposed regulations and its proposed revisions to Onshore Order No. 3, Onshore Order No. 4, and Onshore Order No. 5 require the BLM to conduct a cumulative analysis to determine *all* effects of the impacts from these interrelated regulations. A cumulative impact is defined as,

[A]n impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.<sup>97</sup>

Instead of using this cumulative impact analysis, the BLM prepared four separate, independent EAs for the revision of Onshore Orders No. 3, No. 4, No. 5 and the proposed rule. The BLM’s piece-meal approach in reviewing each of the proposed regulations diminishes the appearance of significant environmental impacts the regulations will have, which if taken together, would likely trigger a requirement for an EIS to be conducted. “NEPA mandates comprehensive *consideration of the effects of all federal actions*.”<sup>98</sup> “A single NEPA review document is required if . . . the projects are “connected,” “cumulative,” or “similar” actions under the regulations implementing NEPA.”<sup>99</sup> “To permit non-comprehensive consideration of a project divisible into smaller parts, each of which taken alone does not have a significant impact but which taken as a whole has cumulative significant impact would provide a clear loophole in NEPA.”<sup>100</sup> It could be argued the BLM should have also considered the BLM’s hydraulic fracturing rule<sup>101</sup>, which if implemented,

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<sup>93</sup> *High Sierra Hikers Ass’n v. Blackwell*, 390 F.3d 630, 639 (9th Cir. 2004) citing *Neighbors of Cuddy Mtn. v. Alexander*, 303 F.3d 1059, 1070 (9th Cir.2002) (emphasis added).

<sup>94</sup> 40 C.F.R. § 1508.9.

<sup>95</sup> *Id.* at 1500.6.

<sup>96</sup> *Id.* at 1502.4.

<sup>97</sup> 40 C.F.R. § 1508.7.

<sup>98</sup> *City of Rochester v. U.S. Postal Serv.*, 541 F.2d 967, 972 (2d Cir. 1976) (emphasis added).

<sup>99</sup> *Native Ecosystems Council v. Dombeck*, 304 F.3d 886, 893-94 (9th Cir. 2002) (citations omitted).

<sup>100</sup> *City of Rochester*, 541 F.2d at 972.

<sup>101</sup> 80 Fed. Reg. 16,128 (Mar. 26, 2015).

would have additional interrelated impacts. The BLM is called to evaluate all pending regulation in its analysis<sup>102</sup>, and the hydraulic fracturing rule was not a part of that analysis.

The BLM acted arbitrarily when it conducted an EA and did not account for *reasonably foreseeable* future actions, *i.e.*, the *BLM's own proposed revisions* to Onshore Order No. 3, Onshore Order No. 4, and Onshore Order No. 5.<sup>103</sup> "An EA may be deficient if it fails to include a cumulative impact analysis or to tier to an EIS that reflects such an analysis."<sup>104</sup> Since the BLM's EA failed to consider the additional impacts of the proposed revisions related Onshore Order No. 3, 4, and 5, or tier to an EIS that reflects such an analysis, the NDPC requests the BLM conduct a new EA to evaluate the impacts of the Waste Management Rule including, comprehensive consideration of its additional proposed related actions.

Similarly, the economic impacts of the Waste Prevention Rule, in conjunction with the economic impacts expected from implementing and complying with revisions to Onshore Order No. 3, Onshore Order No. 4, and Onshore Order No. 5, are of great concern to NDPC. The cost assumptions for each of the proposed regulations are considered in isolation from one another and fails to calculate the overall economic impacts to oil and gas production on federal and Indian lands. The combined impacts of these proposed rulemakings will determine not only our ability to continue to operate on federal and Indian lands, but will substantially impact the amount of revenue collected from production by the states and the tribes. BLM did not account for these serious consequences.

### **Sundry Notice Backlog**

The proposed BLM rule requires approval and/or sundry notices in a significant number of instances. The North Dakota Field Office is already facing a backlog of 3000 - 4000 sundry notices for flaring. The BLM does not appear to have considered the current backlog, and the additional burden on Field Offices with the approval requirements under; 3162.3-1(j)(waste minimization plans); 3178.5 (off-lease use of oil or gas); 3178.7 (treating, and oil or gas used in operations off-lease); 3179.7(a) (alternative flaring limits); 3179.103(b) and (c) (extension of initial production testing); 3179.104 (subsequent well tests longer than 24 hours); 3179.302(a)(2) (LDAR monitoring devices); 3179.302(a)(3) (comprehensive LDAR monitoring program); 3179.303(b) (LDAR devices); 3179.401(b) (state and tribal variances). These additional Sundry Notice requirements will only cause delay to an already lengthy process.

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<sup>102</sup> See footnote 98.

<sup>103</sup> See *Kleppe v. Sierra Club*, 427 U.S. 390, 409-10, (1976). ("A comprehensive impact statement may be necessary in some cases for an agency to meet this duty. Thus, when several proposals for [] actions that will have cumulative or synergistic environmental impact upon a region are *pending concurrently before an agency, their environmental consequences must be considered together*. Only through comprehensive consideration of pending proposals can the agency evaluate different courses of action.") (Emphasis added).

<sup>104</sup> *Native Ecosystems Council*, at 304 F.3d 895-96.



## Section 3179.8 Measuring and reporting volumes of gas vented and flared from wells

Proposed § 3179.8 requires, “[t]he operator to estimate or measure all volumes of gas vented or flared from wells.”<sup>105</sup>

“The operator may choose whether to estimate or measure such volumes, except that *measurement is required* (1) If the operator estimates that the volume of gas vented or flared from a flare stack or manifold equals or exceeds 50 Mcf per day; or (2) If the BLM determines and informs the operator that the additional accuracy offered by measurement is necessary for effective implementation of this subpart.”<sup>106</sup>

The NDPC has concern with this requirement for numerous reasons. Flared gas has no actual value rather, it is incidental to and a result of operations and production. In North Dakota, a significant number of wells have the potential of exceeding the 50 Mcf per day threshold because of pipeline capacity constraints. Also, factors such as compressor maintenance, force majeure events, and emergencies could cause a well to flare greater than 50 Mcf per day and trigger the measuring requirement. To maintain compliance, this would require operators to install meters on every site where production would be greater than 50 Mcf per day.

One NDPC member alone anticipates compliance costs will reach \$1 million. Another member stated the proposed rule would require meters to be installed on more than 140 wells, and anticipates a cost per site of \$25,000, not including a yearly operating cost of \$145,000. This would push *compliance costs for one member alone into several million dollars*. These figures demonstrate the BLM has significantly underestimated the costs associated with complying with this proposed regulation.<sup>107</sup>

Industry anticipates the BLM will only approve an orifice plate meter for measurement. However, orifice meters pose safety concerns because they create additional pressure and increased pressure to tanks, creating a potential for combustion. It is technically infeasible for a single meter to be calibrated to measure the wide spectrum of flare volume ranges. A meter that is designed to measure large flare volumes will not accurately measure lower rates, defeating the purpose of measuring flared volumes.

The rule does not provide for a measuring method available to operators. The NDPC requests the GOR method, currently allowed and consistent with NTL-4A, be allowed for estimating volumes of gas. Additionally, measurement of total produced gas can be used to obtain the flared volume through the following calculation: Total produced gas – Lease gas use – Gas sales. This method provides a realistic gas balance that cannot be obtained from multiple measuring of flows.

The BLM has granted itself broad authority to determine when an operator is required to measure versus estimate flared gas amounts without any governing criteria. Clarity is needed so the proposed regulation is not subject to interpretation as applying to volumes of gas flared from tank vapors, pneumatic controllers or pumps, liquids unloading gas, etc.

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<sup>105</sup> 81 Fed. Reg. at 6683.

<sup>106</sup> *Id.* (emphasis added).

<sup>107</sup> See 81 Fed. Reg. 6620 (estimating the total costs of compliance to range from \$1 - \$1.8 million per year).

### **Section 3179.102 Well completion and related operations**

Proposed § 3170.102 requires gas that has reached the surface during completion and post-completion, fluid recovery, or fracturing or refracturing be captured and sold, flared, used onsite or injected, and these requirements pose technical challenges. The EPA has even recognized challenges to this approach stating, “[d]uring the initial flowback stage, there is no requirement for controlling emissions from the vessel, and any gas in the flowback during this stage may be vented.”<sup>108</sup> The EPA further recognizes during the second, “separation flowback stage, it is infeasible to route the recovered gas to a flow line or collection system, reinject the gas or use the gas as fuel or for other useful purpose, the recovered gas must be combusted.”<sup>109</sup> This is just another example of where the Waste Management Rule conflicts with EPA regulation.

The BLM has failed to acknowledge existing obstacles that preclude immediate connectivity to gas to infrastructure. Most apparent is in order to connect, a gathering system must be permitted, installed and operational at the time a producer is looking to connect. Importantly, adequate pressure must exist to flow the natural gas to a gathering system. Connection does not occur automatically and may not be feasible where capacity constraints exist or there are rights-of-way delays exist. Natural gas must meet a certain quality in order for it to meet sales and quality of gas is not always known when it initially reaches the surface. The NDPC requests that Section 3179.102 be removed entirely.

### **3179.103 Initial production testing**

The NDPC requests the BLM retain the 50 mmcf limit as contained in NTL-4A instead of reducing it to 20 mmcf, and clarify that production testing under § 3179.103 is royalty free. The 20 mmcf flaring threshold does not account for Bakken wells which could reach this volume in a matter of days. Additionally, the initial production testing limit of 20mmcf contained in § 3179.103(3) conflicts with North Dakota rules allowing 14 days of flow back. Section 3179.103 provides that “gas flared during a well’s initial production test is royalty-free . . .” until the operator has flared 20 mmcf of gas when combined with volumes of gas flared under § 3179.102(b). This is in direct conflict with North Dakota regulations that provide, “[t]he operator is allowed to remove the initial 14 days of flowback gas from the total monthly volume calculation.”<sup>110</sup> While North Dakota regulations allow for this 14 day flow back period, operators will send as much gas to sales in situations when it is possible. However, capture during the first 14 days is dependent on a number of factors, and is not always feasible. Capturing during this time period requires facilities, automation and the gathering companies to be online and in coordination with the flow back company. Additionally, challenges may arise if equipment is not properly sized for very high flow, which typically occurs during initial production.

During initial production, it is unknown how high the H<sub>2</sub>S concentration of gas will be. Flow back and permanent facilities are not equipped to treat “sour” gas prior to going to sales, and as a result, it is flared. North Dakota’s 14-day allowance provides operators time to determine concentrations

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<sup>108</sup> 79 Fed. Reg. No. 250, 79021 (December 31, 2014).

<sup>109</sup> *Id.*

<sup>110</sup> NDIC Policy Guidance No. 24665 Version 102215.

of H<sub>2</sub>S so that treating equipment can be ordered so the gas can be captured and sold. Additionally, this period aids in design and sizing of production equipment and helps determine the necessary pipeline capacity.

Additionally, the NDIC allows producers to produce at a maximum efficient rate for all infill horizontal wells for a 90-day period.<sup>111</sup> This is not to say the amount of gas flared during this period is subtracted from total flared volumes, but rather production does not need to be *curtailed* to meet NDIC gas capture goals during this period. However, under the proposed rule, production would have to be curtailed once it meets the 20mmcf threshold. The NDIC allowance of 90 days of maximum efficient production allows for reservoir evaluation. Again, this information is critical to the total recovery of the well and is necessary to understand recovery in new spacing units. For these stated reasons, NDPC believes it is critical that regulation does not infringe on MER during initial completion of a well.

#### **Section 3179.201 Equipment requirements for pneumatic controllers and Section 3179.202 Requirements for pneumatic chemical injection pumps or pneumatic diaphragm pumps.**

The NDPC objects to BLM regulation in this area entirely. However, if the BLM adopts proposed sections 3179.201 and 3179.202, the NDPC requests the BLM incorporate a three year implementation time for compliance. The BLM acknowledges the use of gas to operate pneumatic controllers and pneumatic pumps is consistent with operation and production purposes. Under proposed §§ 3178.3 and 3178.4, royalty is not due on, “Oil or gas that is produced from a lease or CA and used for operations and production purposes . . . .” including, “Use of gas to actuate pneumatic controllers or operate pneumatic pumps at production facilities.” The BLM specifically acknowledges the beneficial use of gas involving these devices by exempting it from royalty payment. However, the BLM then tries to classify the use of gas associated with these devices as “waste” to justify regulation of these devices under proposed §§ 3179.201 and 3179.202. It is important to note, the benefits associated with these replacement requirements are based on monetized benefits of methane reduction which are intangible, estimated, societal benefit amounts.<sup>112</sup>

#### **Pneumatic Controllers § 3179.201**

Pneumatic control emissions is an area already regulated by states and the EPA through the current 40 C.F.R. part 60 Subpart OOOO and the proposed subpart OOOOa. The Waste Management Rule exceeds BLM jurisdiction, creates regulatory confusion, and has the likelihood of conflicting with current and future EPA and state regulations in this area. Specifically, any installation of a high bleed pneumatic controller or replacements will be subject to the EPA’s NSPS OOOO or OOOOa regulations. The rule does not provide an exemption for OOOOa, and will directly conflict with BLM’s sundry notice requirements.

Additionally, many North Dakota producers have taken it upon themselves to replace pneumatic controllers with low-bleed or no-bleed pneumatic controllers. One NDPC member stated all of their pneumatic controllers are zero-emission, air actuated controllers. However, this member

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<sup>111</sup> *Id.*

<sup>112</sup> *See e.g.*, 81 Fed. Reg 6652.

highlighted the fact that air actuated controllers require compression and the use of generators that emit nitrogen oxides.

#### Pneumatic Pumps § 3179.202

The proposed rule requires replacing pneumatic pumps with zero-emission pumps or flaring the gas within one year of the effective date of the rule. The requirement to replace pneumatic pumps with zero-emission pumps is conflictual with proposed § 3178.4 which acknowledges and authorizes the use of natural gas to “operate pneumatic pumps.” Pneumatic pumps are often used on NGL equipment because, as temporary equipment, it must be positioned far from primary facilities, and it is often more convenient and less cost prohibitive to use pneumatic pumps. Often, it is technically infeasible to route to a flare. Low pressure associated with these pumps is insufficient to route pump vapor to a flare, and compression equipment is required to do so. Conversion of pneumatic pumps to air-driven, electric-powered, or solar pumps is not a feasible option for many operators in North Dakota. Geographical limitations preclude grid connection for electric-powered pumps in some fields, and uneconomic costs and reliability issues preclude the use of solar pumps in others. In these instances, additional generators would be required. Additional equipment creates increased emissions and adds significant costs which offset any perceived benefit regulating an originally low emission source creates in the first place.

BLM regulation in this area is duplicative and conflictual with EPA regulation where the EPA has stated it will commence efforts to regulate existing sources. Additionally, as seen throughout the Waste Management Rule, the likelihood of this regulation effecting non-federal, non-Indian lands is significant. Language in § 3179.201(a) and § 3179.202(a)(1) states the rule is applicable to all natural gas produced from a “Federal or Indian lease, or from a unit of CA that includes a Federal or Indian lease.” This language grants the BLM authority to regulate pneumatic pumps and controllers that are not located on federal or Indian lands, but where a *de minimus* federal or Indian mineral interest exists in the CA.

#### Section 3179.203 Crude oil and condensate storage vessels

The BLM’s understanding of emissions from existing storage vessels is misguided. Bakken crude placed in storage tanks contains dissolved gas. Pressure and temperature changes, adding oil to the tanks, and with normal breathing losses as the tank expands and contracts, vapors are released from storage vessels as a part of normal operations, and are not a “lost source of energy and revenue” needing to be classified as avoidable or unavoidable.<sup>113</sup>

Technological hurdles limit the ability for vapor recovery. Vapor recovery devices require a sizeable and continuous rate of gas to operate properly. Electric power is necessary to run vapor recovery compressors and this poses a challenge for many remote sites not equipped with power. On-site compression results in additional costs and associated emissions. Further, flaring vapors from storage vessels does not advance the goal of avoiding waste, but merely changes the form in which it is released into the atmosphere.

The proposed rule would require operators to “route all tank vapor gas from storage vessels . . . to a combustion device or continuous flare, or to a sales line . . . that have a VOC emission equal to

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<sup>113</sup> 81 Fed. Reg. 6622.

or greater than 6 tons per year . . . no later than 6 months after the effective date [of the rule].” 81 Fed. Reg. at 6654. The BLM relies on NSPS OOOO which regulates new and modified sources in order to justify emission control of existing sources. This reasoning is ill-founded and cannot be used to justify the regulation of existing sources. Factors such as the associated economics of retrofitting existing sources or the remaining useful life of the source were not adequately evaluated and as a result, the emission threshold should be greater than the 6 tpy for existing sources. It is possible an entire tank may need to be replaced if it is not capable of handling the additional pressure necessary to route vapors. The BLM’s requirement to determine the rate of emissions within 30 days after a new source of production is added to a tank is insufficient. Additionally, compliance within six months of the effective date of the rule does not provide operators the time necessary to assess regulatory impacts and develop a plan for implementation, let alone achieve complete compliance. The NDPC requests a phase-in period of a minimum of two years.

The BLM’s definition of storage vessel is conflictual with the definition under NSPS OOOO and OOOOa, and imposes more stringent requirements than that of the EPA. For example the EPA has defined, “[e]ach storage vessel affected facility, which is a *single storage vessel*”, whereas the BLM defines a storage vessel as a “condensate storage tank or battery of tanks that vents.”<sup>114</sup> The discrepancy in definitions has serious implications. Under the EPA’s definition, a *single storage vessel* is subject to the EPA potential to emit 6tpy VOC control regulations.<sup>115</sup> However, under the Waste Management Rule, *numerous tanks in a battery* are subject to evaluation for the potential to emit 6tpy VOC, and trigger the requirements under the proposed rule.<sup>116</sup>

BLM regulation in this area is duplicative and conflictual with EPA regulation. Air emission regulation of storage vessels should be limited to the EPA and states. Additionally, as seen throughout the Waste Management Rule, the likelihood of this regulation affecting non-federal, non-Indian lands is significant. Language in § 3179.203(a)(1) states the rule is applicable to all production from a “Federal or Indian lease, or from a unit of CA that includes a Federal or Indian lease.” This language grants the BLM authority to regulate storage vessels that are not located on federal or Indian lands, but where a *de minimus* federal or Indian mineral interest exists in the CA.

### **Leak Detection and Repair (LDAR) Sections 3179.301-3179.305**

The U.S. EPA announced plans for rule making that will duplicate or conflict with the requirements of the BLM proposed rule.<sup>117</sup> The EPA clearly has authority under the Clean Air Act to promulgate rules. The BLM proposed rules make numerous references to EPA regulations at 40 CFR Part 60 subpart 0000. The NDPC strongly believes the BLM’s attempts to require LDAR is premature and unwarranted given the EPA’s forthcoming regulations. The likelihood of the Waste Management Rule duplicating or even conflicting with the EPA regulations is significant.

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<sup>114</sup> Compare 40 C.F.R. § 60.5365 (emphasis added) with § 3179.3.

<sup>115</sup> 40 C.F.R. § 60.5365.

<sup>116</sup> 40 CFR § 3179.3, as proposed in 81 Fed. Reg. 6682 (emphasis added).

<sup>117</sup> See, Addressing Greenhouse Gases and Smog forming VOCs from the Oil and Gas Industry, Methane, Oil and Natural Gas Air Pollution Standards, United States Environmental Protection Agency <https://www3.epa.gov/airquality/oilandgas/methane.html> (last updated March 3, 2016).

The Waste Management Rules requires periodic leak detection inspections that increase or decrease depending on the number of leaks found during an inspection.<sup>118</sup> The increase and decrease of inspections are unmanageable because they require special tracking for each individual site. The restrictive requirement to make repairs within 15 days of detecting a leak does not recognize the seasonal variability of work conditions in North Dakota, which can result in exposing workers to hazardous weather conditions. The BLM should add a provision for delay of repair in situations that could include, but are not limited to: adverse weather or other safety concerns, unavailable parts, force majeure, and lack of outside resources. In the majority of cases, operators will make repairs as soon as possible. However, setting a specific timeframe that does not account for real-world operational situations leads to regulation failure.

Section 3170.304(c) of the Waste Management Rule requires the operator to follow up with an additional inspection within 15 days of a repair to insure the leak has been corrected. If all leaks are repaired within 15 days of the initial inspection, there is no reason why an operator should be required to increase inspection frequency. Once a leak is repaired, operators have completed their due diligence of preventing a reoccurring issue. The BLM failed to define the term “leak.” Other regulating agencies define a leak as having a minimum concentration of 500 ppm of detectible gas. The failure to define a leak leaves this term open to varying interpretations. It is unclear whether *any amount* of gas detected on any device listed within the proposal is considered a “leak.” If gas monitoring equipment varies by operator, one could argue the detectible limits would also vary by operator. The result would leave some operators with “leak-free” facilities which may actually have very small amounts of gas leaking. As discussed above, this part of the proposed rule is redundant and best left to be regulated by the EPA.

NDPC requests that any BLM imposed LDAR inspection requirements be amended to provide for annual inspections only, and that consideration must be given to allow for more than 15 days for any necessary repairs.

### **Provision for Variance**

In proposed §3179.401(b) regarding state or tribal requests for variances from the requirements of this subpart, it states (emphasis added):

(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 determines that the State or tribal regulation or rule meets or exceeds the requirements of the provision(s) from which the State or tribe is requesting the variance, and is consistent with the terms of the affected Federal or Indian leases and applicable statutes. The decision to grant or deny the variance will be in writing and is within the BLM’s discretion. *The decision on a variance request is not subject to administrative appeal under 43 CFR part 4* (Emphasis added).

The NDPC requests the following language contained in proposed § 3179.401(b) be removed from the rule, “[t]he decision on a variance request is not subject to administrative appeal under 42 CFR

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<sup>118</sup> 81 Fed. Reg. 6686.

part 4.” This restriction does not allow North Dakota to regulate local variations pertaining to Bakken characteristics. The BLM strips states and the tribes of their right to appeal a decision while granting itself broad authority under § 3179.401, “reserve[ing] the right to rescind a variance or modify any condition of approval.” This leaves the states and tribes with no recourse to challenge BLM action. There is zero practicality in this provision. If the BLM has already rendered a decision regarding a variance, states and tribes have no ability to appeal a decision in order to even supplement new information that is likely relevant in BLM decision making.

It is unclear who the BLM is specifically referencing when it provides that the “State [] or the tribe” may request a variance. The BLM has failed to acknowledge that the EPA, states, various agencies and tribes all have the authority to regulate air emissions. All entities regulating oil and gas activities must too have the ability to request variances from BLM regulation. Additionally, in order to avoid duplication of regulatory oversight, the BLM also needs to clarify that the requesting agency will be the entity enforcing the variance requirements.

As previously discussed, the BLM does not have the authority to implement a blanket regulation that would circumvent the MLA. The MLA specifically states, “[n]one of such provisions shall be in conflict with the laws of the State in which the leased property is situated.”<sup>119</sup> Proposed § 3179.401(b) is a clear attempt to nullify this regulation by stripping states of their right to regulate and providing no means to challenge it.

## CONCLUSION

The Waste Management Rule attempts to place a “one-size fits all” approach on every well within a lease across oil and gas basins *country wide*. This is concerning because it fails to account for areas like North Dakota’s Bakken field which has very distinct characteristics from other basins.

The NDPC requests the BLM to reevaluate the limits proposed on venting and flaring and consider a state-wide or basin approach when limiting flaring. The NDIC has been able to successfully reduce flaring by looking at various factors contributing to flaring, and allowing the operator flexibility to maintain operational decisions. Bakken operators have worked diligently to utilize the latest technologies available to decrease the surface impact on North Dakota and federal lands by batch drilling. The BLM’s per-well-average limit encourages operators to drill individual well facilities that have a far greater environmental impact and footprint.

There are many other practical effects the BLM did not consider in drafting the Waste Management Rule including North Dakota’s harsh winter conditions, unique land ownership issues, gas capture economics, and rights-of-way issues. The practical effect of many aspects of the proposed rule would be to add substantial disincentive to development of oil and gas resources located on public and tribal lands. Combined with flaring limits, the cost to comply with many of the new requirements will be substantial and, in many cases, cost prohibitive. This is particularly true in the current low price environment, and in the context of higher costs associated with developing federal oil and gas. Given the additional cost, many operators may decide to curtail production or shut in wells,

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<sup>119</sup> 30 U.S.C.A. § 187.



dramatically reducing the crude oil royalties paid to mineral owners and the BLM. The BLM attempts to promote the reduction of waste and increase in royalty payments paid to the public. However, the Waste Management Rule will encourage waste through nondevelopment and royalties will not be paid on a resource that lies idle in the ground.

Further, the BLM is unquestionably attempting to regulate air emissions subject to the jurisdiction of EPA and the states. The BLM uses many of the EPA's regulations as a guide or as a cross-reference within the Waste Management Rule. If air emissions, including methane reduction is going to be regulated, it should be done correctly and by the proper agencies. The Waste Management Rule creates a regulatory web of confusion and uncertainty in light of BLM's acknowledgment of current and future EPA regulation addressing methane emissions.

The impacts of the proposed regulation, taken together with proposed revisions to Onshore Order No. 3, No. 4, and No. 5 and have not been reviewed by the BLM. NDPC requests the BLM conduct a new EA that elevates the cumulative impacts of its regulations. In addition, the BLM fails to account for the significant economic burdens of all its proposed regulations. When taken together they will have significant impacts on the oil and gas industry.

Perhaps Executive Order 12866 58 Fed. Reg. 190 (October 4, 1993) stated it best in regard to regulation,

The American people deserve a regulatory system that works best for them, not against them: a regulatory system that protects and improves their health, safety, environment, and well-being and *improves the performance of the economy* without imposing *unacceptable or unreasonable costs on society*; regulatory policies that *recognize the private sector and private markets are the best engine for economic growth*; regulatory approaches that *respect the role of State, local and tribal governments*; and regulations that are *effective, consistent,[and] sensible . . .*

To close, beyond the jurisdictional and other concerns expressed in our comments, we must offer a few thoughts regarding the issue of climate change, which is mentioned throughout the BLM comments for justification for almost every provision of the Waste Management Rule. The petroleum industry has achieved substantial reductions in greenhouse gas emissions and other pollutants in the last 20 years. This reduction has been greater than other industries, especially in most recent years with much of the reductions taking place through voluntarily measures. NDPC and industry are willing and ready to work together with state and federal regulatory agencies to combine our technical expertise and undertake all reasonable measures to reduce emissions further, but we must maintain our nation's energy economy, its abundance, and continue to provide and strive for United States energy independence and national security. NDPC believes the BLM's Waste Prevention Rule, as justified by the climate change initiative, is misguided and miscalculated. Climate change and clean air is a global issue, not confined to the borders of North Dakota or the borders of the United States. Implementing regulations that will have the effect of reducing production of oil and gas from North Dakota, other basins and states, and this lost energy supply to the United States must be replaced. Much of the lost energy currently being produced in North Dakota and America will be replaced by nations who give little thought to climate change and present a threat to our national security, and will allow other countries not held to our clean air



standards to step up their production to replace American energy output. These nations will emit ten-fold the greenhouse gas emissions and other pollutants that would not occur here, thereby increasing—not decreasing—global greenhouse gas emissions.

This Waste Management Rule is not an answer to waste, flaring, gas royalty revenues, and most definitely not a solution for global climate change initiatives. NDPC respectfully requests BLM fully reconsider all aspects of this rule and work with North Dakota and the other states to better accomplish its stated goals.

Sincerely,

A handwritten signature in blue ink, appearing to read "Ron Ness", with a large, sweeping flourish above the name.

Ron Ness, President  
North Dakota Petroleum Council