

# KIRKLAND ALERT

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## One Step Beyond: Potential Impacts of Proposed Methane and VOC Reduction Initiatives in Pennsylvania's Oil and Gas Sector and Staying Ahead of the Curve

On January 19, 2016, the Pennsylvania Department of Environmental Protection (“PADEP”) announced a plan to curb fugitive methane and volatile organic compound (“VOC”) emissions associated with natural gas production, transmission and distribution operations in an effort to combat global warming and improve air quality. The plan follows a U.S. Environmental Protection Agency (“EPA”) proposal announced in September 2015 to establish nationwide emission standards and guidelines to reduce methane and VOC emissions from oil and gas sources, and represents the fifth state-level effort to directly regulate methane and VOC emissions in the oil and gas sector.

Pennsylvania's proposed regulatory framework, however, may ultimately prove to be more stringent than EPA and other state requirements with respect to unconventional natural gas production, imposing potentially burdensome permitting and other requirements on Pennsylvania's natural gas production sector. To minimize and mitigate the potential impacts of the proposed regulations, shale gas operators should be cognizant of the rule's potential reach and be ready to address Pennsylvania's proposed regulatory requirements head on.

### *Background*

Federal and state environmental regulators have focused on methane as a potentially significant contributor to global warming, and natural gas and petroleum systems as a large source of domestic methane emissions (reportedly accounting for approximately 29 percent of methane emissions nationwide). For this reason, federal and state regulators have recently started to develop and propose regulatory solutions for curbing methane and associated VOC emissions from domestic oil and gas activities.

For example, in February 2014, Colorado issued rules to directly regulate methane and VOC emissions from new and existing oil and gas sources, including exploration and production operations, well production facilities, natural gas compressor stations, and natural gas processing plants. Wyoming adopted similar regulations shortly thereafter, followed by Ohio in April 2014 and California in April 2015. These state regulations have attempted to fill gaps in the EPA's 2012 federal regulations under the Clean Air Act's New Source Performance Standards (“NSPS”) Program (which do not apply to existing wells or specifically target methane) by requiring the use of control technologies and certain management practices (e.g.,

**Proposed air regulations in Pennsylvania could impact the operations of shale gas operators in the state. To minimize and mitigate potential impacts, operators and investors should be cognizant of the rule's potential reach and be ready to address Pennsylvania's proposed regulatory requirements head on.**

monitoring and inspections; leak detection and repair [“LDAR”]) to control methane and VOC emissions from oil and gas activities.

In August 2015, the EPA proposed its own federal framework to target methane and VOC emissions from new and modified oil and gas sources under Subpart OOOO of the EPA’s NSPS regulations. The EPA’s proposed framework would establish LDAR requirements, require capture of emissions from the completion of fracked wells, limit emissions from pneumatic pumps and limit emissions from several types of equipment used at gas transmission compressor stations (e.g., compressors and pneumatic controllers). Simultaneously, the EPA issued draft Control Techniques Guidelines (“CTG”) and a model rule to reduce methane and VOC emissions from certain existing oil and natural gas emission sources within ozone nonattainment areas of concern and the Ozone Transport Region, including imposition of Reasonably Available Control Technology (“RACT”) requirements. Barring administrative or legal delay, the EPA plans to issue the final federal rules and the CTG to limit methane and VOC emissions from oil and gas operations in 2016.

### *Pennsylvania’s Proposed Framework*

Sitting atop the Marcellus and Utica Shales, Pennsylvania is the second largest natural gas fuel producing state in the nation. Given the prominence of oil and gas activity in the state, PADEP has indicated that it intends to be a national leader in addressing climate change and is proactively following the lead of the federal government and other oil and gas states to address methane and VOC emissions associated with in-state oil and gas operations. To that end, Pennsylvania recently announced a proposed multi-prong regulatory overhaul, which would include:

- Imposing new Best Available Technology (“BAT”) pollution control and LDAR requirements under General Permit 5, an existing permit framework for new and modified midstream natural gas compression and processing facilities;
- Developing a stringent regulatory framework to address existing oil and gas sources that would enhance the EPA’s recommendations under the forthcoming CTG for existing sources, including RACT requirements. Pennsylvania’s regulation would be due to the EPA as a State Implementation Plan revision within two years after issuance of the EPA’s final CTG;
- Establishing best management practices, including LDAR programs, to reduce fugitive methane and VOC emissions from transmission and distribution pipelines; and
- Perhaps most significantly, subjecting new unconventional oil and gas exploration, development and production facilities to a new preconstruction review and permitting process pursuant to an “Air Quality General Permit.” The new general permit would impose enhanced BAT and LDAR requirements on several aspects of unconventional oil and gas operations, including dehydrators, engines, turbines for compressor engines, pigging operations, liquid unloading

**Pennsylvania’s proposed rule follows recent state and federal proposals to regulate methane and VOC emissions in the oil and gas sector, but would impose more stringent requirements on unconventional natural gas production, including preconstruction permitting.**

venting, gas processing units, storage tanks and load-outs. The new permit requirement would also terminate applicability of conditional permit exemption criteria under “Exemption 38” of PADEP’s “Air Quality Permit Exemptions” (PADEP Doc. No. 275-2101-003) with respect to unconventional oil and gas facilities, which, since 2013, have required that oil and gas operators only demonstrate compliance with exemption criteria and other federal and state requirements within 180 days after constructing a well pad (rather than demonstrating compliance prior to construction).

As a whole, Pennsylvania’s proposed regulatory overhaul seeks to aggressively target fugitive methane and VOC emissions through enhanced inspection, monitoring, repair and pollution control requirements, with goals to cut the methane emissions by at least 40 percent. Barring administrative or legal delay, the PADEP plans to establish its updated permitting scheme by August 2016.

### *Potential Implications and Concerns*

Pennsylvania officials claim that the increased costs of complying with more stringent emission regulations for new unconventional oil and gas facilities is likely to be offset by the amount of natural gas captured from inadvertent leaking that can be sold as profitable product. Given current market conditions, however, the question remains whether the preconstruction permitting requirements could have a net negative impact on Pennsylvania’s shale gas production sector. Potential negative impacts could include:

- Increased Capital Expenditures. Additional BAT and LDAR requirements are likely to result in increased capital expenditures and up-front costs to comply with such requirements.
- Increased Administrative and Legal Costs. Compliance with preconstruction permitting requirements has the potential to increase administrative and legal costs associated with preparing permit applications (e.g., retaining technical consultants and legal advisers), and coordinating processing and review of permit applications with the PADEP. The shift in process could also result in increased administrative and legal fees due to increased regulatory scrutiny on operators and preconstruction challenges to PADEP permitting determinations.
- Operational Delay and Risk of Business Loss. The preconstruction permitting process has the potential to delay operators’ ability to quickly and efficiently commence production operations by adding on additional front-end time to the regulatory approval process. Delaying entry into the field could result in lost business opportunities or diminished profitability, depending on market conditions.
- Slow Market Recovery. The number of new wells being drilled in Pennsylvania has plunged in recent years due to falling energy prices and plentiful supply of oil and natural gas. Imposing new preconstruction permitting requirements

**Given current market conditions, the question remains whether the preconstruction permitting requirements could have a net negative impact on Pennsylvania’s shale gas production sector.**

could serve as a hurdle to the shale gas market's recovery by posing greater barriers to market entry and restraining what may otherwise be an organic rebound in the marketplace.

### *Staying Ahead of the Curve*

Investors and operators in Pennsylvania's oil and gas market should proactively evaluate how the proposed emission requirements and regulations may impact their operations and business interests in the future. Careful planning and preparation can help to avoid, minimize or mitigate the potential negative impacts of the proposed regulations. Next steps to consider to stay ahead of the curve include:

- Staying abreast of and tracking regulatory updates to develop a nuanced understanding of technical, legal and procedural impacts posed by additional regulatory requirements;
- Working with technical environmental consultants to evaluate any technology or process updates that may be necessary to comply with new regulatory requirements (e.g., BAT, LDAR or other requisite management practices) for new, modified, or existing oil and gas production, transmission, or distribution facilities, including potential costs and any practical considerations with implementation;
- Building in appropriate administrative and processing time to comply with the general preconstruction permitting process for unconventional production operations; and
- Anticipating administrative and legal challenges and potential administrative and legal costs associated with the more stringent regulatory process.

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