



EARTHWORKS

Dedicated to protecting communities and the environment from the adverse impacts of mineral and energy development while promoting sustainable solutions.

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Democratic Policy Committee
Hearing on Methane and Climate Change

Haverford Township Administration Building
1014 Darby Rd, Havertown, PA 19083

January 24, 2019

Representative Vitali and Committee Members:

Good morning. My name is Leann Leiter. I am the Earthworks Field Advocate for Pennsylvania and Ohio. Earthworks is a national nonprofit organization committed to protecting communities and the environment from the impacts of mining and energy development while seeking sustainable solutions.

I live in Washington County—the most heavily-fracked county in this state—so I am both professionally and personally familiar with the range of impacts of the gas industry on air, water, land, and quality of life.

Earthworks responds to community requests to document air pollution at well pads, compressor stations, and other facilities. We do so with staff trained and certified to use industry-standard optical gas imaging (OGI) cameras—the same approach used by industry and federal and state regulators.

Across the state, we see pollution at both older conventional wells and newer, unconventional wells. We also see significant permitted pollution at countless processing plants and compressor stations. The pollution is the result of both decades of neglect at many sites and the ever-expanding network of new gas infrastructure.

For example, we have seen problem after problem at a newer unconventional well in Washington County—including improperly vented emissions and a tank hatch left ajar, releasing uncontrolled pollution—problems that went unnoticed for months even though residents complained, workers were routinely onsite, and state inspections took place. We recently documented leaks and unchecked emissions at older conventional wells in the Allegheny National Forest¹; DEP's own records indicated the wells had gone up to five years without an inspection. And over the past three years, we have repeatedly documented an improperly operating flare at a processing plant in Butler County.

This OGI video evidence of air pollution is visual, irrefutable proof of the need for strong regulations for the oil and gas sector in Pennsylvania. I invite each of you to join me in the field to see for yourselves.

Rules need to be complete, comprehensive, and consistent. It is crucial that they address both toxic pollutants and ozone-forming, climate-disrupting methane, and do not exempt the conventional industry from these pollution controls.

- **New rules must regulate methane directly**

It is important to clarify for this discussion that “leakage” figures in studies represent both accidental/unintentional leaks due to mechanical and operational problems *and* releases of pollution into the atmosphere during “normal operations,” including from stacks, engines, and other combustion sources. Given this, any regulations to control methane and VOC releases must be strong and comprehensive enough to reduce emissions from throughout the gas development chain.

¹ <https://earthworks.org/blog/leaky-oil-wells-in-allegheny-national-forest-prove-pennsylvania-needs-conventional-drilling-rules-more-than-ever/>



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The draft rules presented by the DEP last month are based on the federal Control Technique Guidelines (CTGs), which encourage voluntary measures by operators to control Volatile Organic Compounds (VOCs). Guidelines based on optional controls should therefore be used only as a floor, not a ceiling, with regard to what DEP can and should require operators to do to limit VOCs and address the specific climate impacts of methane.

Importantly, the composition of Pennsylvania's gas resources varies widely, with varying proportions of methane and VOCs, so both must be covered by regulation. The same variability applies to different stages of gas development, including liquids separation, processing, compression, pigging, and metering. The publicly available draft of the DEP rule, however, proposes to only regulate VOCs, treating any subsequent methane mitigation as a co-benefit, rather than as a quantifiable, critical goal.

Reigning in methane is essential, because methane is a greenhouse gas 86 times more powerful than carbon dioxide over the critical two decades that the scientific community says we have to curb global climate change. Mitigating methane emissions will also help protect the health of Pennsylvanians because methane is a precursor for ground-level ozone, which leads to asthma attacks and other respiratory ailments.

In fact, according to the latest National Climate Assessment², "The magnitude of the human health benefit of lowering ozone levels via methane mitigation is substantial and is similar in value to the climate change benefits." The entire state of Pennsylvania is in the Ozone Transport Region and several counties, including heavily drilled ones, do not currently meet the federal standard for the pollutant³.

Pennsylvania can go much further to control pollution from its hundreds of thousands of existing oil and gas sources. Our neighboring state of Ohio, for example, recently set an admirable precedent by stating that federal OOOOa rules would be the basis for state rules on new and existing oil and gas operations. DEP should consider OOOOa and look for any aspects that may provide more robust pollution protections than the CTGs, such as covering additional sources and processes, and of course because the federal rules specifically set controls on methane.

- **New rules should not exempt low producers**

Both conventional and unconventional wells release methane and VOCs, so the reporting, inspection, and repair schedule used to address that pollution should be consistent. Low rates of well production should not exempt operators from these requirements, because data shows that production levels do not necessarily correlate with emissions levels. We have documented significant leaks even at wells reporting *no* production.

DEP's draft rule effectively exempts the entire conventional gas industry because of applicability thresholds based on production amounts. One study by Carnegie Mellon estimates that because of poor maintenance and sheer number, the conventional industry may release even more methane per unit of production than the unconventional industry⁴. The conventional industry, according to Environmental Defense Fund estimates⁵, emits almost 270,000 tons per year of methane that goes unreported and unaccounted for. That figure is *more than double* the annual amount of methane pollution reported by the unconventional industry.

Earthworks recommends that DEP lower or remove the applicability threshold based on production in order to include all sources of pollution.

² <https://www.globalchange.gov/nca4>

³ <https://www.dep.pa.gov/business/air/baq/regulations/pages/attainment-status.aspx>

⁴ Omara, Sullivan, Li, et. al. Methane emissions from the conventional and unconventional natural gas production sites in the Marcellus Shale Basin. *Environmental Science and Technology*, 216. <https://pubs.acs.org/doi/10.1021/acs.est.5b05503>.

⁵ <http://www.edf.org/pa-oil-gas/#/air-emissions>



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- **Pennsylvania should transition away from oil and gas development**

Strong regulations and their enforcement are critical to protect climate and health. But the fact will remain that all industry pollutes, and there are no leak-proof well sites, no emission-less compressors. Yet permits for new wells and facilities continue to be issued, and Pennsylvania is staking its future on a non-renewable resource and an inherently polluting industry. This influx of new oil and gas extraction and development needs to stop. Pennsylvania cannot maintain its cherished qualities and continue to be a desirable place to live and do business while drastically diminishing its air quality. It cannot honor the Governor's recently-announced climate commitment by promoting the expansion of the gas industry or exempting its low producers. It cannot promise its residents *good* jobs in the most dangerous US industrial job sector; it cannot offer *lasting* jobs by repeatedly investing in an industry broadly forecasted as financially and logistically doomed.

...

There are hundreds of thousands of sources of oil and gas pollution in Pennsylvania, and more than 1.5 million residents live within a ½ mile health threat radius of these industrial operations⁶. In addition, the urgency of climate change demands we take determined action, as Governor Wolf recently acknowledged.

I urge you all to support strong new rules as they advance through the rulemaking process. DEP must be allowed to adopt and enforce measures to effectively control methane and other harmful pollution.

But your advocacy for the climate and for the health of Pennsylvanians should not end there. As a resident of Pennsylvania's gas patch and as a researcher who continually witnesses pervasive air pollution across our state, I ask that you also consider the fact that to protect the climate and health, Pennsylvania needs to start shifting away from a dependence on fossil fuels and toward renewable energy.

I thank each of you for exercising your responsibility as an elected official to protect our Commonwealth.

Sincerely,

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Additional References:

Earthworks OGI Program: cep.earthworks.org

Earthworks OGI footage from Pennsylvania: bit.ly/CEP-PA

⁶ <https://oilandgasthreatmap.com/threat-map/pennsylvania/>