

Public Comment of Robert Altenburg  
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Good morning, my name is Robert Altenburg and I am a Senior Energy Analyst with PennFuture. I'd like to thank the Council for giving me the opportunity to present comments.

Earlier today, the Council heard a presentation from DEP Deputy Secretary Vince Brisini on the control of carbon pollution from existing coal-fired power plants—also known as the 111(d) rule. As you have already heard in public comments, there are many questions that need to be asked about the approach the DEP recommends, but it is a positive sign that the Department is willing to put serious thought into how best to control emissions from this sector.

While we should continue the fight to ensure that these sources have effective controls, we need to realize that any gains we make in this sector could easily be erased if we don't properly address the issue of methane leakage. The Environmental Protection Agency (EPA) currently reports that 29 percent of the methane emissions nationwide are coming from the oil and gas sector, but they are using a leakage rate of only 1.2 percent of total production and assuming methane has a global warming potential of only 21 times that of carbon dioxide. Even if EPA were correct, these emissions would be huge—the equivalent of 162 million metric tons of carbon dioxide.

Unfortunately, the reality may be much worse. An article in a recent addition of the journal *Science* that reviewed over 200 studies on the topic found that emissions may be 50 percent higher than EPA estimates, and other studies show results that are higher still. The EPA may also be significantly underestimating the global warming potential of methane. The EPA has been assuming it was 21 times more potent than carbon dioxide, and they recently have indicated they will assume it is 25 times more potent over a 100 year period. The new Intergovernmental Panel on Climate Change AR5 report is assuming it is 34 times as potent over 100 years and as high as 86 times as potent over the next 20 years.

There are a number of programs out there that will directly or indirectly reduce methane emissions. One, for example, is the federal New Source Performance Standards (NSPS) for natural gas. Unfortunately, the NSPS rules focus on emissions of Volatile Organic Compounds (VOCs) and methane is considered an "exempt solvent," so VOC rules do not directly apply. Perhaps we should follow the lead of Colorado, which recently declared in its new Regulation 7 that hydrocarbon emissions, including methane and ethane, are subject to state

regulations in spite of the fact that they are not VOCs.

Here in Pennsylvania, we have Exemption 38 for wells and wellheads that, admittedly, has provisions that relate to leak detection and repair (LDAR) for methane. This is a good start, but it won't apply to all wells. While often referred to as a "permit exemption," that's not exactly true. It is a plan approval exemption, not an operating permit exemption and, as such, it applies to new wells, not the many existing wells. Existing wells still appear to benefit from a blanket exemption of methane sources from needing air permits. Colorado, once again, seems to be well ahead on this point, creating a phase-in program to apply LDAR to existing sources.

LDAR requirements similar to those in Exemption 38 also appear in GP-5, the DEP's general permit for compressor stations and processing facilities. This is both a plan approval and an operating permit, so it will impact existing sources of methane, but once again there are large gaps in its coverage. For starters, it focuses its requirements on the natural gas processing segment, which is responsible for less than 19 percent of methane emissions, according to current reports. The transmission and distribution sectors, much of which is not covered by GP-5, is responsible for over 69 percent of methane emissions, according to those same reports. GP-5 also does not apply to wells and wellheads, so those existing sources not covered by Exemption 38 remain untouched.

Pennsylvania is, to its credit, requiring many drillers to report their emissions. Once again, this is a positive step that raises a number of critical questions. Unlike large stationary sources that are often required to use continuous emissions monitoring systems that directly record emissions, sources like these tend to self-report their emissions based on emissions factors published by EPA. If EPA is underestimating methane leakage as certain studies suggest, how can we have confidence in these reports?

We ask that the Council, in its capacity to advise the department and be involved in regulatory development, keep the methane issue in mind and help ensure that these questions are answered.

Thank you.