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Karen;

The Nature Conservancy in Virginia (The Conservancy) supports DEQ's continued efforts to reduce greenhouse gas emissions through controlling methane releases. As is clearly documented from literature studies, methane is a very potent greenhouse gas, having up to 30 times the impact of carbon dioxide (CO₂). It should be recognized that methane is very difficult to remove from the atmosphere after release and, unlike CO₂, cannot be absorbed by natural systems such as forests, wetlands, and oceans.

Virginia has expressed a commitment to address greenhouse gas emissions (Virginia Department of Environmental Greenhouse Gases website, accessed May 19, 2023). An important step in this process is setting ambitious reduction goals for methane emissions from multiple sources drafted as sector-based emission percentage decreases. While there has been focus on fugitive leaks related to natural gas development, reduction goals should also consider other significant sources of methane emissions such as coal mining, solid waste landfills, livestock manure management, and wastewater treatment. There may be other source sectors that should be included as well. While state reduction goals do not necessarily require regulatory responses, they do provide a framework for achieving reductions and hold the state accountable for progress.

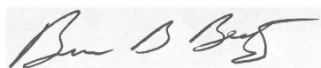
The Conservancy would applaud efforts identifying methane emission reduction opportunities related to coal mines and landfills. Coal mines contribute 4.55 MMT CO₂e of methane emissions in Virginia (Virginia DEQ, Virginia Greenhouse Gas Inventory – 2018 issued November 2021), which is 8.5% of all U.S. coal mine emissions (U.S. EPA, Inventory of U.S. Greenhouse Gas Emissions and Sinks 1990-2016, 2018, EPA 430-R-18-003). Landfills release 2.02 MMT CO₂e and comprise 15.6% of methane emissions in VA (Virginia DEQ, Virginia Greenhouse Gas Inventory – 2018 issued November 2021). Since these are releases from defined locales and already fall under existing air quality rules, there may be achievable reduction opportunities. Potential emission reduction strategies could focus on reducing methane generation, flaring, or capturing methane leakage. The latter may not only provide climate change benefits but be economically beneficial for operators.

Thirdly, as was identified during the Ad Hoc Workgroup Concerning Methane Leakage from Natural Gas Infrastructure in 2019, more thorough methane emission data is needed. This applies to all sectors releasing methane to better understand emitted quantities and spatial distributions. Such information will strongly inform efficient and cost-effective methane emission approaches. There is no uniform methane leakage reporting structure or tracking across natural gas industry sectors or stakeholders, and it is the most well tracked significant methane source. Other key source industries emissions are even less well tracked and documented. We recognize that point sources are simpler to track and address but even non-point source emitters such as agricultural operations are critical to understanding the methane release scope.

Finally, at least 3 new federal actions may directly impact methane emissions. It is imperative the state understand the specific emission mechanisms that will be addressed by these and the estimated amount of methane reduction. The Pipeline and Hazardous Materials Administration proposed PIPES Act rulemaking would address leak detection and repair activities along the 2.7 million pipeline miles, storage facilities, LG stations, and other infrastructure. The recently proposed EPA Greenhouse Gas Standards and Guidelines for Fossil Fuel-Fired Power Plants could impact power generation fossil fuel use and related emissions and would require state plans addressing existing power plants. EPA also proposes updating New Source Performance Standards and Emissions Guidelines for Oil and Natural Gas Operations. Developing a clear outline and understanding of methane emission reduction measures driven by these rules would enhance state measure determinations.

Although these comments are not technical in nature, the framework provides DEQ with a positive path forward to reduce statewide methane emissions and provide accountability to the public. Setting ambitious methane emission reduction goals will establish clear intent by and accountability for Virginia and its citizens. Addressing relatively large methane emission sources beyond natural gas production, transportation, and distribution, such as coal mining sources and solid waste landfills, will be necessary to achieve the above goals. There is a clear need to improve available methane emissions data across sectors to enhance decision-making certainty and effectiveness. Virginia citizens and government leaders would greatly benefit from a clear understanding methane emission reducing measures in the 3 relevant federal actions, and any other pertinent, including identifying gaps that may be important for Virginia to address. Thank you for the opportunity.

Sincerely:

A handwritten signature in black ink, appearing to read "Braven Beaty".

Braven Beaty
Ecologist, The Nature Conservancy