December 2, 2020

Via e-mail
Eddie DuRant
Regulatory and Compliance Engineer
Air and Radiation Administration
Maryland Department of the Environment
1800 Washington Boulevard
Baltimore, Maryland 21230
eddie.durant@maryland.gov

RE: MDE Regulations for Controlling Methane from Municipal Solid Waste Landfills

Dear Mr. DuRant:

The three undersigned organizations write in regard to the new regulations that the Maryland Department of the Environment ("MDE") is developing to limit methane emissions from municipal solid waste ("MSW") landfills in Maryland. We urge MDE to issue the strongest set of regulations in the country for controlling this significant source of a powerful greenhouse gas.

It is critical that MDE issue a strong landfill methane rule. Methane is a potent greenhouse gas that has 86 times the climate warming effect of carbon dioxide over a 20-year period and 34 times the effect over a 100-year period. Municipal solid waste ("MSW") landfills are a significant source of methane in Maryland and in the United States. MSW landfills were the third largest source of anthropogenic methane in the U.S. in 2018, emitting 17% of the country's methane. In Maryland, landfills were responsible for 18% of methane emission in the state in 2017. In addition, of the top twenty highest methane-emitting facilities in the Maryland, sixteen were MSW landfills in 2018.

Regulations issued in 2016 by the U.S. EPA, which serve as the regulatory floor in MDE's rulemaking process, will not sufficiently limit landfill methane in Maryland. Under EPA's 2016 rule, only four out of 37 MSW landfills in Maryland must install and operate a gas collection and control system, and these four landfills are already required to operate such systems. In other words, no new landfills would be required to install controls if MDE were to implement EPA's rule without additional requirements. This is an unacceptable level of control

¹ International Panel on Climate Change, Climate Change 2013, the Physical Science Basis: Anthropogenic and Natural Radiative Forcing, p. 714,

http://www.climatechange2013.org/images/report/WG1AR5_Chapter08_FINAL.pdf (the global warming potential of 86 accounts for climate-carbon feedback, i.e. the effect of methane on multiple aspects of the carbon cycle).

² EPA, Overview of Greenhouse Gases: Methane Emissions, Greenhouse Gas Emission, at https://www.epa.gov/ghgemissions/overview-greenhouse-gases#CH4-reference.

³ MDE PowerPoint presentation, Updating Maryland's Municipal Solid Waste (MSW) Landfill Regulations (Sept. 21, 2020) p. 22, at

https://mde.maryland.gov/programs/Regulations/air/Documents/MSWLandfillsPresentation092120.pdf (hereinafter "MDE 9/21/20 PowerPoint").

⁴ Based on the 2018 Maryland Emissions Inventory.

for such significant source of a powerful climate-changing gas. Merely implementing EPA's rule will not help Maryland make meaningful progress toward reducing greenhouse gases 40% by 2030 as required by the Maryland Greenhouse Gas Reduction Act.

MDE has full legal authority to go beyond EPA's requirements, and we believe that MDE must exercise this authority. The strongest set of landfill methane regulations in the U.S. were issued in 2010 by the State of California. We urge MDE to use California's regulations as a model and to improve upon them in order to develop a nation-leading set of regulations. It is particularly important that MDE ensure that in Maryland establish applicability thresholds low enough to ensure that all or almost all of the MSW landfills must install and effectively operate a gas collection and control system or meet some other proven emissions control requirements. California's regulation is also superior to EPA's rules with respect to the following types of requirements: leak detection and repair, surface methane monitoring, and flare operation. MDE should, at minimum, adopt the requirements of California's landfill methane rule.

We also urge MDE to make organics diversion a component of its rule. Organics diversion avoids generation of landfill methane in the first place by using alternative waste disposal practices for organic materials that produce methane when decomposing. In 2013, the EPA estimated that composting and anaerobic diversion practices each achieve a 95% methane reduction efficiency when compared to landfilling organic waste.⁵ In addition to reducing landfill methane, organics diversion can create jobs in the composting and anaerobic digestion industries and divert waste away from an additional set of pollution sources: trash incinerators. Organics diversion should be a key component of Maryland's zero waste and climate strategies, and we request that MDE create programs to require and/or encourage composting and anaerobic digestion as part of its landfill methane rule.

Finally, we appreciate that MDE is conducting a public stakeholder process to solicit input from members of the public and other stakeholders on its landfill methane regulations before commencing formal rulemaking procedures. We thank MDE for holding a September 21, 2020 meeting on this subject and look forward to participating as this process moves forward.

Sincerely,

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⁵ EPA, Global Mitigation of Non-CO2 GHGs Report: 2010-2030 (2013), Landfills, p. III-6, at https://www.epa.gov/sites/production/files/2016-06/documents/mac_report_2013-iii_waste.pdf (entire report available at https://www.epa.gov/global-mitigation-non-co2-ghgs-report-2010-2030).

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