

Randy Mosier -MDE- <randy.mosier@maryland.gov>

RE: Comments: Draft Regulations for Landfill Emissions

Frances Sherman <ShermanF@charlescountymd.gov> Tue, Jul 20, 2021 at 3:26 PM To: Eddie Durant -MDE- <eddie.durant@maryland.gov>, Randy Mosier -MDE- <randy.mosier@maryland.gov>

As requested, below is a summary of concerns regarding MDE's proposed regulations for landfill emissions. I ask MDE to reevaluate with a holistic lens and ensure benefits are in balance with the potential cost investment. As drafted the burden of these regulations is not proportionate to environmental benefits. The proposed regulations aim to reduce GHG emission, but in some situations would result in additional GHG emissions, especially when looking at forcing a closed, active system on a small or closed landfill.

The threshold of 3.0 MMBtu/hr. for implementing controls does not seem balanced. This threshold would impose costly requirements on the County's closed landfill and the planned renewable solar project for this site. The regulations would also result in additional costs for the County's active landfill plans for an LFGTE project.

In particular, the following five bullets highlight concerns related directly to Charles County's facilities.

- 1. GCCS Requirements if ≥3.0 MMBtu/hr.; ≥200ppm methane on surface demonstration testing
 - > Models tend to overestimate for older or closed sites (often by wide margins) and can be inaccurate.
 - > Historical waste acceptance rates may be unknown.

➢ Gas models assume 50 percent methane when projecting landfill gas generation rates. Older or closed landfills may be below 20%-30% methane.

Industry experience shows it is very challenging to operate an active gas collection system at such a low level without intermittent operation or injecting supplemental fuel (natural gas, propane, etc.). Additional fuel would result in higher GHG emissions.

Closed landfills/areas could exceed this threshold for only a short period. However, the operation of the gas system would be required for at least 15 years.

- 2. Gas collection would be required in any area where waste is buried.
 - · This requirement poses major safety concerns.
 - Gas collection from low-producing non-compacted initial waste and shallow waste depths would draw oxygen into the waste mass and cause a significant risk of landfill fires.
 - · Would require personnel to perform monitoring, adjustments, and maintenance around dangerous equipment
 - Equipment could hit extraction equipment, also drawing in oxygen and increasing the risk of fire.
- 3. The prohibition of carbon adsorption and passive systems; the use of open flares only under specific conditions; and the Min. control requirement of 99% (or 3,000ppm outlet from engines).
 - > Open flares have wider "turndown" ratios (difference between min. and max. rated flow rates).

> Open flares can operate longer without replacement in new landfills (operators can maintain control at higher increases in collection rates).

> Effective at closed landfills, which require control at current and future (declining) generation rates.

> Best for beneficial use projects (i.e., LFGTE facilities) as these flares can start-up and ramp-up flow quickly and control the excess unused flow. These projects are often used for CH4 and CO2e reductions.

4. Annual source testing for GCCS (or three years if "in-compliance."

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• Annual testing provides no benefits at significant cost increases

5. Wellheads must be operated under a vacuum except for certain conditions.

- Operators need the ability to address subsurface fires by closing wells if needed.
- If a landfill needs to use an intermittent operation to comply with 3.0 MMBTU/hr, they would need to close and cease vacuum application at wellheads intermittently.

Frances Sherman

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From: Eddie Durant -MDE- <eddie.durant@maryland.gov> Sent: Tuesday, June 29, 2021 3:01 PM To: Randy Mosier -MDE- <randy.mosier@maryland.gov> Cc: George Aburn -MDE- <tad.aburn@maryland.gov> Subject:

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Dear Stakeholders,

The purpose of this email is to inform you that presentation materials (includes the agenda, recording of the webinar, and both presentations) from the June 23, 2021 virtual webinar to discuss new requirements to control methane emissions from municipal solid waste (MSW) landfill has been uploaded to the Maryland Department of the Environment (MDE) website, which can be found at the following link below:

https://mde.maryland.gov/programs/Regulations/air/Pages/ARMARegulationsStakeholders.aspx

In addition, the Department politely requests that stakeholders who wish to submit written comments to please do so no later than July 20, 2021, so that they may be given consideration. Stakeholders are strongly encouraged to submit written comments via email - either to me or Randy Mosier (Chief, Regulation Development Division). If you have any questions or comments, please feel free to contact me.

7/21/2021

Thank you once again for your interest and participation.

Sincerely,

Eddie



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