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January 27, 2026
Project No. M0732.02.001

Benton County Community Development Department
Petra Schuetz, Interim Director
4500 Research Way
Corvallis, OR 97333

Sent only electronically to: petra.schuetz@bentoncountyor.gov

Re: Third-Party Review: Department of Environmental Quality Pre-Enforcement Notice Letter dated Nov. 6, 2025

Dear Petra Schuetz:

Valley Landfills, Inc. currently owns and operates the Coffin Butte municipal solid waste landfill (the landfill) under Title V Operating Permit no. 02-9502-TV-01 issued by the Oregon Department of Environmental Quality (DEQ) on October 30, 2009. On November 6, 2025, DEQ issued a Pre-Enforcement Notice (PEN letter) to Valley Landfills, Inc. for compliance issues at the landfill. Among the seven violations noted are the following:

- Failure to conduct quarterly surface emissions monitoring (SEM) required by Title 40 of the Code of Federal Regulations (40 CFR) 63.1958(d), 40 CFR 63.1960(c), Oregon Administrative Rule (OAR) 340-239-0600(1) and OAR 340-239-0800(3).
- Failure to conduct remonitoring and take required corrective actions when SEM instantaneous or integrated grid sampling showed an exceedance, in violation of 40 CFR 63.1960(c) and OAR 340-239-0600(1).
- Failure to install and operate a gas collection and control system designed to handle the maximum expected gas generation flow rate from the entire area of the landfill that warrants control over the intended use period of the gas control system equipment, in violation of 40 CFR 63.1959(b)(2)(ii)(B)(i), 40 CFR 63.1960(a)(1) and OAR 340-239-1001(1)(c)(C).
- Failure to operate the control system at all times when the collected gas is routed to the system, in violation of 40 CFR 63.1955(f), 40 CFR 63.1955(c), and OAR 340-2390110(2)(a)(A).
- Failure to maintain the landfill cover so as to minimize landfill gas emissions and to implement a program to monitor for cover integrity and implement cover repairs as necessary on a monthly basis, in violation of 40 CFR 63.1960(c)(5), OAR 340-2390600(4), OAR 340-239-0100(5)(a)(C).

Each violation is considered to be a Class I violation, the most serious violations issued by DEQ, per OAR 340 Division 012.

Review of PEN Letter for Odor Impacts

Maul Foster & Alongi, Inc. (MFA) is contracted with Benton County (County) to perform third-party engineering and technical review of the land use application for the proposed landfill expansion. Specifically, this letter focuses on MFA's review of the June 2025 Odor Dispersion Modeling Analysis (Odor Study) prepared by the Applicant in relation to the November 6, 2025, PEN letter issued by DEQ.

The Applicant conducted the Odor Study using dispersion modeling software to predict maximum downwind concentrations for odor-causing pollutants from the existing and future landfill operations (post expansion). Emission rates used in the Odor Study were derived from the US Environmental Protection Agency (EPA) LandGEM model. Notably, the default assumption was that 75% of the landfill gas generated by the landfill would be captured and routed to downstream flares and engines for emissions control. The PEN letter issued by DEQ does not call into question the mechanics of the dispersion modeling if the landfill is operated appropriately. Model selection, topography, meteorology, source parameters, and model settings are still appropriate.

On October 13, 2025, MFA issued the final third-party review letter on the Applicant submittals related to odor impacts and mitigation (Exhibit 67) at the landfill. This was prior to the issuance of the PEN letter. As stated in the final third-party review letter, *"MFA agrees that improving the landfill gas (LFG) collection efficiency will help control LFG emissions and reduce the potential for offsite odors, while implementing enforceable mitigation measures via monitoring will help reduce and/or remedy nuisance conditions offsite…"* MFA believes this is still true. However, issuance of the PEN letter and the violations noted therein provide support for the opposite statement. Specifically, that an undersized gas collection and control system, failure to operate the control system at all times when the gas is collected and routed to the system, degradation of the landfill cover, and failure to conduct monitoring as required can and would likely result in the increased potential for offsite odors that are both more frequent and greater in intensity.

Issues with the Applicant's Odor Modeling based on PEN Letter

While the Applicant's odor dispersion model was developed correctly (e.g., meteorology, terrain, etc.), the PEN raises issues about whether inputs to the dispersion model were accurate at the time of submittal. The inputs to the dispersion model (particularly emission rates) assumed the existing and future landfill operations are currently and would, in the future, be in full compliance.

Landfill Gas Emissions:

- The dispersion model representation of the landfill for the Odor Study assumed that 75% of the landfill gas emissions are captured/controlled and 25% are emitted fugitively through the landfill surface. If the gas collection and control system is undersized and 75% is not collected, then the modeled landfill fugitives emission rate may be have been too low (i.e., actual fugitive emission rates were higher than modeled), which potentially underestimates offsite odor impacts.
- Emission rates included in the Odor Study assumed that 75% of the landfill gas emissions were captured and controlled. If there were periods when landfill gas was captured, but the downstream control devices were not operated as required, then a higher emission rate may have been experienced from the control device exhaust point(s). Without appropriate controls for the collected landfill gas, the actual emissions rate from those points could be up to 50 times higher than what was input to the odor model (assuming the control devices would normally have a control efficiency of 98%). This could lead to higher offsite odor impacts that were not accurately predicted by the dispersion model.

Landfill Cover:

- The dispersion model representation of the landfill in the Odor Study assumed that fugitive landfill gas emissions are evenly distributed over the landfill surface. If the landfill cover has experienced degradation, in areas outside of the working face, to the point that there are locations where less containment is provided, then landfill fugitive emissions are not evenly distributed over the landfill surface. Less containment over an area means higher emission and higher flowrate, leading to greater offsite odor impacts in that general area, and potentially downwind.
- Failure to conduct monitoring as required under the permit calls into question the completeness of the emissions understanding and whether there are locations of high emissions on the landfill cover that are not known. As documented in the PEN letter, maps of the monitoring routes show large areas that are completely unmonitored as of the first quarter of 2025. While this does not indicate there are issues with the landfill cover or the even distribution of emissions through it, the monitoring does not provide assurance that the geographical allocation in the dispersion model can be supported.

Conclusions Regarding the Impact of the PEN Letter

The PEN letter raises the question of whether the Odor Study provided accurate data based on reasonable assumptions given the documented violations. The PEN letter calls into question whether the inputs to the dispersion model used as the basis of the Odor Study were correct. The Applicant did not acknowledge the known issues that would later be identified in the PEN letter, or make an effort to justify the selected inputs (e.g., 75% collection efficiency, well maintained landfill cover with evenly distributed emissions, control devices working 100% of the time that landfill gas is collected, etc.) in light of the cited issues.

If the Applicant had provided evidence that it corrected each violation cited in the PEN letter and demonstrated that the gas collection and control system does capture 75% of landfill gas emissions, then the results presented in the June 2025 Odor Study would be considered accurate and reliable.

Please contact MFA if you have any questions or need any additional information regarding this review.

Sincerely,

Maul Foster & Alongi, Inc.

Chad Darby
Principal Air Quality Specialist

Erik Bakkom, PE
Principal Engineer

Attachment

Limitations

Limitations

The services undertaken in completing this report were performed consistent with generally accepted professional consulting principles and practices. No other warranty, express or implied, is made. These services were performed consistent with our agreement with our client. This report is solely for the use and information of our client unless otherwise noted. Any reliance on this report by a third party is at such party's sole risk.

Opinions and recommendations contained in this report apply to conditions existing when services were performed and are intended only for the client, purposes, locations, time frames, and project parameters indicated. We are not responsible for the impacts of any changes in environmental standards, practices, or regulations subsequent to performance of services. We do not warrant the accuracy of information supplied by others, or the use of segregated portions of this report.

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