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From: [Viswanathan, Srividhya](#)

Sent: Friday, May 16, 2025 7:43:40 PM

To: [Baitong Chen](#) [Nathaniel Dickel](#) [Christina Ojeda](#)

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Subject: Case No. 6177-4: Condition 72(c) Leachate and Condensate Vapor Sampling

Importance: Normal

Sensitivity: None

[EXTERNAL SENDER: Use caution with links/attachments]

All,

Below please find the Reaction Committee's further recommendations on additional vapor flow testing pursuant to Condition 72(c) of the Stipulated Order for Abatement with South Coast AQMD in Case No. 6177-4.

Per Condition 72(c) of the modified SOFA, the Reaction Committee may submit further recommendations regarding additional vapor flow testing within 30 days of the additional source test report. The most recent source test was submitted on April 18, 2025. As such, below are the recommendations of the Reaction Committee regarding the additional vapor flow testing based on a review of the April 2025 and prior reports.

The Reaction Committee is proposing to conduct monthly field testing to collect methane (CH4), carbon dioxide (CO2), oxygen (O2), and balance gas concentrations of the gaseous-phase emissions that may be present in the head space of the leachate storage tanks, also known as "leachate vapor flow from the leachate tanks". In addition, the Reaction Committee recommends adding monitoring for volatile organic compounds (VOCs) using a photoionization detector (PID), and hydrogen sulfide (H2S) using Draeger tubes to the monthly field monitoring program.

Based on the testing conducted in October 2024, and subsequently in March 2025, the concentrations of constituents of interest in the leachate vapors continue to remain much lower than constituent concentrations present in the raw landfill gas (LFG). The March 2025 testing results indicate that the composition of the vapors in the headers/manifolds across Tank Farms 6, 9A, 9B, 2 and 7 range between approximately 74 – 78 percent (%) nitrogen, and 20.66 – 21.88% oxygen, which is similar to the composition of air.

Additionally, the flow (quantities) of these leachate vapors is being measured and recorded with dedicated flow meters for the leachate tanks, after which the collected leachate vapors are comingled with the LFG before being combusted in the thermal oxidizers (TOX) and flares. Sampling and analysis of LFG at the flare station is conducted after the leachate vapors are co-mingled into the gas stream, thus these data also reflect the contribution of leachate vapors to these contaminant concentrations.

Due to the low concentrations and relatively low flow quantities of leachate vapors compared to the concentrations and quantities of the LFG being collected and controlled at the facility, the Reaction Committee maintains the recommendation to measure constituent concentrations within the leachate vapor flow on a monthly frequency with a modification to the monitoring procedures as described above. We also recommend moving to an annual schedule for the formal source testing.

**Thanks,
Vidhya**

Srividhya Viswanathan, P.E.*

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