

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19
20
21
22
23
24
25
26
27
28

**BEFORE THE HEARING BOARD OF THE
SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT**

In The Matter Of

SOUTH COAST AIR QUALITY
MANAGEMENT DISTRICT,

Petitioner,

vs.

CHIQUITA CANYON, LLC a Delaware
Corporation,
[Facility ID No. 119219]

Respondent.

Case No. 6177-4

**EXHIBIT B TO DECLARATION OF
PATRICK SULLIVAN, BCES, CPP,
REPA**

Health and Safety Code § 41700, and
District Rules 402, 431.1, 3002, 203, 1150

Hearing Date: October 29 and November
12, 2025

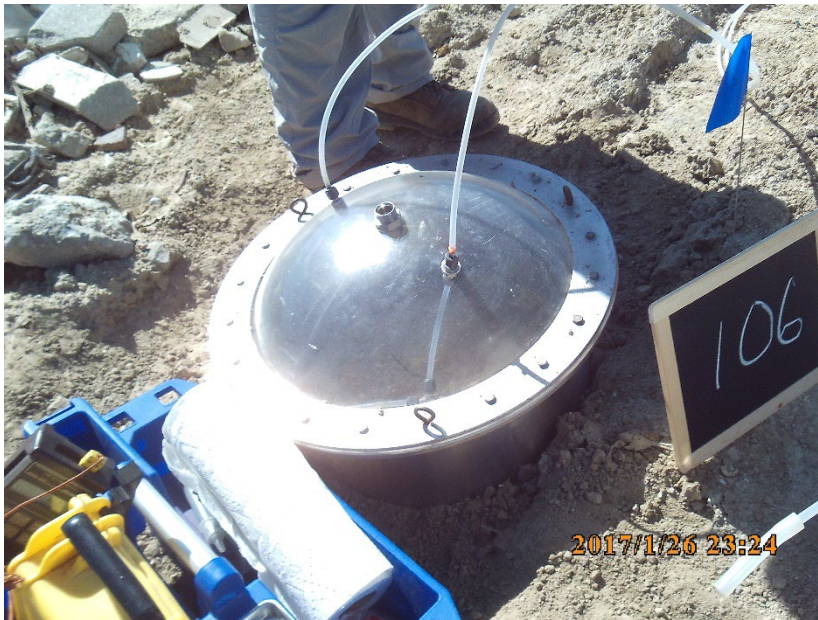
Hearing Time: 9:30 A.M.

Place: Hearing Board
South Coast Air Quality
Management District,
21865 Copley Drive
Diamond Bar, CA 91765

Chiquita Canyon Landfill
Castaic, California

ADDENDUM NO. 3 (06/23/2025)

Post Remediation Assessment of Air Emissions From Landfill Surfaces



Sampling Protocol Addendum

Revision 0

June 2025

Prepared by

Thomas R. Card
Environmental Management Consulting
41125 278th Way SE, Enumclaw, WA 98022 USA
360-802-5540 trcard@earthlink.net

Charles E. Schmidt, PhD
19200 Live Oak Road, Red Bluff, CA 96080
530-529-4256 schmidce@aol.com

ADDENDUM No. 3

1. Introduction

This Addendum (No. 3) was produced to document proposed changes in the air emissions assessment program ongoing at the Chiquita Canyon Landfill (CCL), a municipal solid waste (MSW) landfill located in northern Los Angeles County. These proposed changes relate to revision of the technical approach so as to more accurately assess the emissions from the changing surface conditions at the landfill. This addendum is intended for future flux testing events starting with the next event scheduled for July 2025. This document serves as an Addendum to the flux testing protocol, dated December 28, 2023, which was approved by the South Coast Air Quality Management District (SCAQMD).

In accordance with Condition 12.i of the Stipulated Order for Abatement (SOFA) (Case No. 6177-4) between the South Coast Air Quality Management District (SCAQMD) and Chiquita Canyon, LLC, CCL is required to conduct additional flux chamber studies as a follow-up to a flux chamber study previously completed under the direction of the Los Angeles County Department of Public Health, which was submitted to the SCAQMD by October 31, 2023. Procedures for this study, as detailed in the revised SOFA, dated November 13, 2024, are provided below.

Respondent has conducted an initial flux chamber study pursuant to the direction of the Los Angeles County Department of Public Health. Respondent shall conduct landfill gas flux studies for, at a minimum, methane, non-methane organic compounds (“NMOC”), speciated hydrocarbons (C2-C12), toxic air contaminants (TAC) analyzed by EPA Method TO-15 (including acrolein and additionally at least the ten highest concentration tentatively identified compounds), total reduced sulfur (“TRS”), and speciated sulfur compounds to determine the surface flux throughout the landfill starting with Quarter Four 2024 and once every four months thereafter. The studies shall be conducted through the use of dynamic flux chambers oriented at various locations throughout the landfill site, according to a South Coast AQMD approved protocol. Respondent shall prepare a proposed protocol(s) for the studies and shall submit the protocol(s) to South Coast AQMD [Baitong Chen, Air Quality Engineer, (bchen@aqmd.gov); Nathaniel Dickel, Senior Air Quality Engineer, (ndickel@aqmd.gov), and Christina Ojeda, Air Quality Inspector, (cojeda@aqmd.gov)] for review and approval at least 75 days prior to the start of the month in which the test is planned, unless otherwise approved in writing by South Coast AQMD. A previous flux study protocol, reviewed and approved by South Coast AQMD, may be used if the proposed testing will follow all aspects of the prior South Coast AQMD approved protocol, with the exception of the testing/sampling locations on site. Reports detailing the operational conditions, methodology, quantity of tests and locations, sampling location determination, sampling results, data analysis, emission results, discussion of the results, and comparison of previous flux chamber test results to the current results shall be submitted by no later than 45 days after the end of the month during which a test was conducted, or no later than 90 days after South Coast AQMD approves the protocol, whichever is later, to South Coast AQMD [Baitong Chen, Air Quality Engineer, (bchen@aqmd.gov); Nathaniel Dickel, Senior Air Quality Engineer, (ndickel@aqmd.gov), and Christina Ojeda, Air Quality Inspector, (cojeda@aqmd.gov)], unless otherwise approved in writing by South Coast AQMD. The initial flux study report, covering the flux study for the fourth quarter of year 2024, shall be submitted

earlier than the schedule indicated above, by January 15, 2025 to South Coast AQMD [Baitong Chen, Air Quality Engineer, (bchen@aqmd.gov); Nathaniel Dickel, Senior Air Quality Engineer, (ndickel@aqmd.gov), and Christina Ojeda, Air Quality Inspector, (cojeda@aqmd.gov), unless otherwise approved in writing by South Coast AQMD. Respondent shall provide notice of the test date for each test to South Coast AQMD [Baitong Chen, Air Quality Engineer, (bchen@aqmd.gov); Nathaniel Dickel, Senior Air Quality Engineer, (ndickel@aqmd.gov), and Christina Ojeda, Air Quality Inspector, (cojeda@aqmd.gov)] at least 14 days prior to the scheduled test.

The assessment technologies to be used for the testing event, as with the prior events, will include the U.S. Environmental Protection Agency (USEPA) surface emission isolation flux chamber (flux chamber). This preferred USEPA technology as modified and described by the SCAQMD Rule 1133.3, Attachment A is a dynamic chamber method for direct measurement on advective area sources.

As required by the SOFA, this protocol is being submitted more than 75 days prior to the testing event scheduled for the middle of November 2025, within four months of the previous test during the week of July 14, 2025. Although this Protocol addendum is not being submitted 75 days prior to the July 2025 event, we are hopeful that the SCAQMD will consider it for this event.

Proposed Changes to the Testing Program

Current Program

The historic technical approach for the prior assessments is shown in Table 1 below.

Proposed Program

The air emission assessment (Event #5) planned for the weeks of July 14th and July 21st will be executed as shown in Table 1. At present, a significant portion of the 'reaction area' has been covered by a polymer membrane which changes the approach that might be used to assess the current condition of the landfill. This will require additional testing to properly evaluate the covered area of the reaction area.

Based on the data from prior testing events, it is clear that the assessment should make the membrane covered reaction area a separate source category. The proposed program is providing for two new source categories for the air emissions assessment:

1. The Polymer Membrane Cover
2. The interface between the Polymer Membrane Cover and the Soil Cover

It is anticipated that this additional testing will provide an accurate air emissions assessment of the landfill, including the membrane cover. Note that the proposed enhanced data set can be used to calculate the emissions using the old source category distribution. The air emissions will be calculated by both the historical source category distribution and the new source category distribution in order to assess the value of the increased scope.

Table 1 – Historic Scope of Flux Chamber Work for the Scheduled Assessment at Chiquita Canyon LF.

Source Category	Historical Scope		Proposed Scope		
	Source Level	Number of Sample Sets	Source SubCategory	Source Level	Number of Sample Sets
Non-Reaction Area	High	4		High	4
	Med	4		Med	4
	Med	4		Med	4
	Low	4		Low	4
Reaction Area	High	4	Soil	High	4
	Med	4		Med	4
				Low	4
	Med	4	Polymer Membrane	High	4
			Low	4	
	Low	4	Membrane/Soil Interface	High	4
				Med	4
Exceedance	4	Exceedance		4	
Repeat		4			
Total Sample Locations		36			60
Projected QA/QC		6			10
Total Sample Set Count		42			70