



REGION 9

SAN FRANCISCO, CA 94105

Mr. Kevin Green
District Manager
Chiquita Canyon, LLC
29201 Henry Mayo Drive
Castaic, CA 91384-2705

RE: Amended Additional Work required under UAO for Gas Collection and Control System Improvements

Dear Kevin Green:

On September 24, 2026, the U.S. Environmental Protection Agency ("EPA") issued a letter (the "Additional Work Letter"), directing Chiquita Canyon, LLC ("CCL") to implement additional work under Paragraph 90 of the Unilateral Administrative Order, EPA Docket No. RCRA 7003-09-2024-0001 and CERCLA 106-09-2024-05, In the Matter of Chiquita Canyon, LLC, issued February 21, 2024 (the "UAO") to improve the gas collection and control system at the Chiquita Canyon Landfill ("Landfill") in Castaic, California. As allowed under the Additional Work Letter, CCL requested an opportunity to meet and confer with the EPA to discuss the Additional Work Letter and the EPA deferred the initial deadline in the Additional Work Letter to after the conference. Following a conference on October 5, 2026, during which CCL and the EPA discussed the technical details and timing of the work required by the Additional Work Letter, on October 9, 2026, CCL submitted in writing requests to modify the Additional Work Letter. **See Enclosure A.** The EPA agrees, based on the discussion with CCL and CCL's written submission, that modifications to the Additional Work Letter are necessary to ensure CCL prepares and implements meaningful, achievable work plans for improvements to the Landfill's gas collection and control system, minimizes disruptions to the existing gas collection and control system, and coordinates efforts with the South Coast Air Quality Management District ("SCAQMD"). Accordingly, the EPA is issuing this amended additional work letter ("Amended Additional Work Letter"), which supersedes the Additional Work Letter in full.

The overall objectives of the UAO are set forth in Paragraph 1 of the UAO as the performance of response actions to address off-site impacts and ongoing subsurface reactions causing off-site impacts, in connection with the Landfill, including identifying, investigating, remediating, and/or preventing the potential endangerment to human health or the environment from activities involving solid and hazardous waste. The objectives of the UAO specifically include the objectives of the Master Work Plan (as defined in the UAO) set forth in Paragraph 22 of the UAO as:

(1) remedy[ing] and prevent[ing] off-Site impacts caused by odors, emissions, leachate or other waste streams; and

(2) deploy[ing] measures to delineate, fully characterize, prevent the expansion of, contain, and reduce the smoldering or the subsurface reaction occurring at the Landfill.

A. Additional Work

The EPA has determined that the following additional work (“Additional Work”) is necessary to meet the foregoing objectives:

1. By **November 2, 2026**, CCL shall submit a work plan, including a detailed schedule (incorporating the deadlines included below), for making the following updates to the gas collection and control system and achieving the following standards of operation, which CCL shall maintain until otherwise directed by the EPA (or as otherwise required by law):
 - a. By **March 1, 2027**, CCL shall bi-furcate the gas collection and control system such that low methane content “reaction gas” is predominantly controlled in thermal oxidizers (TOx) and higher methane content “non-reaction gas” is predominantly controlled in the existing flare station. CCL shall submit a map of the re-routed gas collection and control system wellfield layout with documentation of the bifurcated systems’ flowrates by **March 5, 2027**.
 - b. CCL shall control landfill gas of no less than 32.5% methane content within the flare station by non-assisted flares. CCL shall not dilute the landfill gas by feeding non-landfill waste gasses (which include, without limitation, leachate tank offgassing) into the flare station. CCL shall achieve no less than 32.5% average methane content at the flare inlet, calculated daily, and may only supply landfill gas of less than 32.5% at the wellhead to the flare so long as CCL achieves 32.5% at the flare inlet(s). CCL shall monitor compliance with this standard with a real time analyzer or daily sample collected at the flare inlet(s).
 - c. CCL shall re-route leachate tank offgassing by **November 30, 2026**, and all other non-landfill waste gasses by **March 1, 2027**, to a thermal oxidizer designed to operate and operated with supplied fuel gas and capable of controlling the gas composition of the leachate storage and treatment off-gasses. To the extent that CCL collects gas from nontraditional landfill gas collection components, such as surface collectors, leachate sumps, or similar infrastructure (excluding leachate storage tanks and treatment units), CCL may continue to supply such landfill gas to the flares such that it does not inhibit achievement the inlet standard in Section 1.b. above.
 - d. CCL shall operate a sufficiently sized TOx and blower system to maintain vapor collection at all leachate tanks, and to achieve control of at least 98% of total gaseous organic concentration of vapors as measured using EPA Method 25a.
 - e. CCL shall re-assess flare capacity, following completion of re-routing required under Section 1, and re-submit an updated report required by SOFA Condition 70, to both the EPA and SCAQMD. CCL shall re-submit the report no later than **June 1, 2027**.

- f. CCL shall maintain redundant thermal oxidizer capacity such that excess or redundant capacity is at least equal to the capacity of the largest thermal oxidizer onsite. The excess thermal oxidizer capacity shall be available in the event any single thermal oxidizer goes offline or operates at an unexpected reduced capacity, or otherwise fails to meet control standards. Excess capacity may be distributed among existing thermal oxidizers such that flow can be increased in the event that the excess capacity is needed. CCL shall re-evaluate if additional capacity is necessary to meet this standard following completion of re-routing as required in this Section above.
 - g. CCL shall install additional dewatering systems as necessary to minimize the disruption of control at the TOx(s).
 - h. CCL shall install sufficient power capacity and fuel gas to the thermal oxidizers to maintain a continuously available power and fuel supply to all flares and thermal oxidizers, including any redundant units if not currently in use. This may include emergency power generators that may be turned on and supplying sufficient power to maintain similar capacity within 1 hour.
 - i. CCL shall ensure continuous collection and control of all landfill gasses while undergoing the modifications pursuant to this Section to the greatest extent possible, to minimize impact to overall collection and control efficiencies.
2. By **February 1, 2027**, CCL shall submit to the EPA and SCAQMD a pilot study work plan, including a detailed schedule (incorporating the deadlines included below), for the following work:
- a. CCL shall design post-combustion sulfur control ("PCSC") for Flare 4 and retrofit, install, and operate Flare 4 as necessary to conduct a pilot study for PCSC using Flare 4. The PCSC shall be designed to meet a target reduction of sulfur oxide pollution at the outlet by at least 95% from the inlet of the control device. CCL shall conduct the pilot test to determine the effectiveness of the post-combustion sulfur control technology and whether the target reduction is achievable and shall promptly report the results to the EPA and SCAQMD.
 - b. Flare 4 otherwise must be designed and operated (including during the pilot study) in accordance with applicable operational standards for control devices, including the standards in the National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills, 40 C.F.R. Part 63, Subpart AAAA, §§ 63.1930-63.1990.
 - c. The pilot study work plan shall include the design for the PCSC, a demonstration that CCL has obtained a manufacturing commitment for the procurement of any necessary equipment/parts for the PCSC, plans for retrofitting and installing Flare 4 with PCSC, plans for conducting the pilot test of PCSC (including monitoring and data collection procedures), and a discussion of Flare 4's operating standards. The pilot study work plan shall include a detailed timeline for the foregoing steps, which shall provide for the commencement of the pilot study and operation of Flare 4 with PCSC by **April 1, 2027**.
 - d. Based on the pilot study, the EPA may, without limitation, require modification to the PCSC, require expansion of the PCSC to additional flares, disapprove the continued

- operation of the PCSC for Flare 4, or approve the continued operation of the PCSC for Flare 4.
- e. CCL shall ensure continuous collection and control of all landfill gasses while undergoing the modifications pursuant to this Section to the greatest extent possible, to minimize impact to overall collection and control efficiencies.
3. By **May 1, 2027**, CCL shall submit to the EPA and SCAQMD a plan, including a detailed schedule (incorporating the deadlines included below), for the following work:
- a. CCL shall work with manufacturers to design, procure, install, and conduct a performance test of a TOx/PCSC unit. The PCSC system shall be designed to meet a target reduction of sulfur oxide pollution at the outlet by at least 95% from the inlet of the control device. CCL shall conduct a performance test to determine the effectiveness of the TOx/PCSC technology and whether the target reduction is achievable and shall promptly report the results to the EPA and SCAQMD.
 - b. The TOx/PCSC unit otherwise must be designed and operated (including during the performance test) in accordance with applicable operational standards for control devices, including the standards in the National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills, 40 C.F.R. Part 63, Subpart AAAA, §§ 63.1930-63.1990.
 - c. The plan shall include the design for the TOx/PCSC system, a demonstration that CCL has obtained a manufacturing commitment for the procurement of a TOx/PCSC unit, plans for installing the TOx/PCSC unit, plans for conducting the performance test of the TOx/PCSC system (including monitoring and data collection procedures), and discussion of the unit's operating standards. The plan shall include a detailed timeline for the foregoing steps, which shall provide for the commencement of the performance test and operation of the TOx/PCSC unit by **December 1, 2027**.
 - d. Based on the performance test, the EPA may, without limitation, require modification to the TOx/PCSC, require the replacement of existing TOx's with TOX/PCSC units, require the installation of additional TOx/PCSC units, disapprove the continued operation of the TOx/PCSC unit, or approve the continued operation of the TOx/PCSC unit.
 - e. CCL shall ensure continuous collection and control of all landfill gasses while undergoing the modifications pursuant to this Section to the greatest extent possible, to minimize impact to overall collection and control efficiencies.

B. Basis for Determination

The EPA has determined that the Additional Work is necessary to meet the objectives of the Master Work Plan and the UAO, based on continuing exposure to the community from landfill gases and failures of the Landfill's current gas collection and control system ("GCCS") to operate effectively under reaction conditions.

In June 2026, South Coast Air Quality Management District ("South Coast AQMD") testified that odors were continuing to affect the communities surrounding the Landfill, including the Val Verde, Hasley Hills, Hasley Canyon, Hillcrest Parkway, Live Oak, and Williams Ranch communities. South Coast AQMD reported that there were more than 3,000 odor complaints from December 2025 through May 15,

2026. See **Enclosure B**. CCL received at least fifty notices of violation from South Coast AQMD for odor nuisance.¹

To control landfill gas emissions from the Landfill, CCL operates a GCCS, currently consisting of three flares and four supplemental thermal oxidizers (“TOXs”) to combust landfill gas. South Coast AQMD’s Modified Stipulated Order for Abatement (as amended August 27, 2026) (“SOFA”), requires operation and maintenance of the GCCS including “maximiz[ing] landfill gas combustion utilizing all operational flares and thermal oxidizers . . . to limit release of raw landfill gas,” and “continu[ing] to use one or multiple portable thermal oxidizer(s)/flares(s),” with “sufficient redundant control capacity . . . to handle all generated landfill gas, assuming any one or more unit(s) is offline.”² See **Enclosure B**.

The EPA has determined that the GCCS are not adequately maintaining collection of landfill gas in the reaction area nor ensuring adequate destruction of the landfill gas that is collected.

The increased leachate production within the reaction area has significantly impacted the GCCS, as evidenced by data accessed by the EPA on SCS eTools dashboard on March 3, 2026, represented below. The data indicates that a majority of wells within the reaction area have greater than 50% perforations occluded by leachate, and a significant number of wells have minimal or no open perforations, indicating near total collection inefficiency within the radius of influence of these vertical wells. Note that the EPA has not assessed the collection efficiency of horizontal gas collectors within the waste mass or directly beneath the liner, which may provide gas collection in the absence of vertical well collection.



CCL has recently reported significant unplanned disruptions to the operation of its flares and TOXs. Under Condition 8 of the SOFA, CCL must report monthly on the landfill operation and progress of the

¹ See Notice of Violation Log, available at: <https://chiquitacanyon.com/reports/notice-of-violation-log/>.

² SOFA Conditions 4, 22, 28, 70, 77, and 82.

status of the flares and TOXs. CCL reported that in during each of the months in 2026, “each of the flares experienced downtime on various days,” and on each of January 17-22, 2026, April 9, 2026, and July 4, 2026, there were excess emissions of landfill gas not flared.³ CCL reported at least ten and twenty-two unplanned downtime events of GCCS equipment lasting 30 minutes or longer on at least during July and August 2026, respectively.⁴ Failures of the TOXs have been attributed to, among other things, backed up liquids in the header, flame failure, blower failure, VDF tripping, loss of grid power; and failures of the flares have been attributed to, without limitation, high flow, loss of grid power, pilot failure, combustion air blower failure, flame failure, and unplanned shutdown after initial startup. See **Enclosure C**.

Flare/TOX downtime has resulted in increased emissions of landfill gas from the Landfill. CCL reported an increase in peak and average methane values associated with the unplanned downtime of the GCCS in July: “The July peak events were concentrated primarily in four drone survey periods associated with temporary equipment downtime or in conjunction with discrete field conditions, such as geomembrane tears, surface cracking, and geomembrane cover activities.”⁵

The EPA has determined that the Additional Work is necessary to ensure that there is sufficient redundancy in the GCCS to collect and combust the landfill gases under reaction conditions, which has demonstrably produced lower gas quality, inconsistent gas flows, and issues with liquid levels in the equipment. The work, therefore, is required to meet the objective of the Master Work Plan and the UAO of remedying and preventing off-Site impacts caused by odors and emissions.

Further, removing gases is also part of CCL’s strategy for mitigating the propagation of the reaction. CCL has stated: “To mitigate an ETLF event, heat must be removed from the waste. Removal of heat is most effectively accomplished through the removal of leachate and landfill gas.” See **Enclosure D**. Thus, improving gas collection through the Additional Work is essential for meeting the objective of the Master Work Plan and the UAO of preventing the expansion of, containing, and reducing the smoldering or the subsurface reaction occurring at the Landfill.

Moreover, the Additional Work is necessary to meet the broader objective of the UAO to address the imminent and substantial endangerment to the public health or welfare from the Landfill resulting from the release or threatened release of a hazardous substance.

C. Submittal of Work Plans and Opportunity to Meet and Confer

The workplan(s) for the Additional Work shall be consistent with the relevant provisions in the SOFA, including without limitation, Conditions 4, 15, 22, 70, and 87 as related to non-landfill and landfill gas collection and control system design and operation. CCL shall submit a revised detailed written estimate(s), in current dollars, of the cost of hiring a third party to perform the Additional Work

³ See January through July 2026 Reports, Stipulated Order Condition 8 (Monthly reports), available at: <https://chiquitacanyon.com/odor-mitigation/stipulated-order-for-abatement/>.

⁴ See Stipulated Order Condition 82 (LFG equipment downtime reports), available at: <https://chiquitacanyon.com/odor-mitigation/stipulated-order-for-abatement/>.

⁵ See Footnote 3.

concurrent with the submission of each Work Plan for the Additional Work, in accordance with Paragraph 77 of the UAO.

Within five (5) days after the receipt of this letter, CCL shall have the opportunity to meet or confer with the EPA to discuss the Additional Work.

Pending approval of the Work Plan(s) for the Additional Work by the EPA, CCL shall continue, and shall not delay due to the pending approval required by this letter and the UAO, the Additional Work. CCL shall take into consideration the progress and/or completion of any such ongoing work when preparing its expeditious schedule for the Additional Work. If CCL considers any directive from any other agency as inconsistent with one or more conditions of this Additional Work letter, CCL shall immediately notify the EPA requesting a conference to resolve the inconsistency. Following the EPA's approval or modification of each Work Plan for the Additional Work, Respondent shall implement the Work Plan in accordance with the schedule and provisions contained therein, and the Work Plan for the Additional Work shall be incorporated by reference into the UAO.

If you have any questions or comments regarding this letter, or if you wish to exercise the opportunity to meet and confer, please contact Laura Friedli, EPA Attorney Advisor, at (415) 972-3325 or Friedli.Laura@epa.gov.

Sincerely,

**AMY MILLER-
BOWEN**

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AMY MILLER-BOWEN
Date: 2026.10.19
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Amy C. Miller-Bowen, Director
Enforcement and Compliance Assurance Division
U.S. Environmental Protection Agency, Region 9

**MICHAEL
MONTGOMERY**

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Michael Montgomery, Director
Superfund and Emergency Management Division
U.S. Environmental Protection Agency, Region 9

Enclosures

Enclosure A – CCL Request for Modification of Additional Work Letter

Enclosure B – South Coast AQMD Modified Stipulated Order for Abatement

Enclosure C – SOFA Condition 82 Shutdown Log

Enclosure D – Off-Site Rule Emergency Exemption Request

cc: John Perkey, Waste Connections
Jim Little, Waste Connections
Kurt Shaner, Waste Connections

Sarah Phillips, Waste Connections
Megan Morgan, Beverage & Diamond
Nicole Weinstein, Beverage & Diamond
Allyn Stern, Beverage & Diamond
Alana Mathews, California Environmental Protection Agency
Todd Sax, California Environmental Protection Agency
Lisa Crowfoot, California Environmental Protection Agency
Terrence Mann, South Coast Air Quality Management District
Victor Yip, South Coast Air Quality Management District
Kathryn Roberts, South Coast Air Quality Management District
Ryan Mansell, South Coast Air Quality Management District
Jeff Lindberg, California Air Resources Board
Karen Gork, Los Angeles County Department of Public Health, acting as the Local Enforcement Agency
Thanne Berg, California Department of Toxic Substances Control
Benjamin Stanphill, California Department of Toxic Substances Control
David Sadwick, California Department of Toxic Substances Control
Bethany Dreyfus, California Department of Toxic Substances Control
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