REGION 9

SAN FRANCISCO, CA 94105

July 24, 2025

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

RE: Additional Work required under UAO for Geomembrane Cover Expansion

Dear Steve Cassulo:

This letter directs 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"), the U.S. Environmental Protection Agency ("EPA"). Paragraph 90 allows EPA to direct additional work consistent with the objectives of the UAO.

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 Chiquita Canyon Landfill ("Landfill") in Castaic, California, including identifying, investigating, remedying, 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

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

1. CCL shall install an EPA-approved landfill cover on all areas of the Landfill which are not presently covered by a geomembrane and to which the reaction area has expanded or has the

potential to expand. The Additional Work shall be consistent with the California's Department of Toxic Substances Control ("DTSC's") Imminent and Substantial Endangerment Determination and Order, Docket No. HAS-FY24/25-082, dated April 1, 2025 ("DTSC ISE Order") and the Los Angeles County Department of Public Health, Solid Waste Management Program, acting as the Local Enforcement Agency ("LEA") Compliance Order, dated May 1, 2025 ("LEA Compliance Order").[1] Consistent with the LEA Compliance Order, the additional geomembrane cover must be installed over at least 100 acres outside the existing geomembrane cover. In no event shall installation of the cover be conditioned upon findings of the Reaction Committee.[2]

B. Basis for Determination

EPA has determined, based on temperature monitoring data showing the migration of the reaction at the Landfill, findings regarding the potential for the reaction to expand to the entire main canyon of the Landfill, and the continued issuance of notices of violation based on odor complaints from community members, as described below, that the Additional Work is necessary to meet the objectives of the UAO.

State and local agencies have found, based on extensive analysis of temperature monitoring data, that the reaction has migrated beyond the portion of the Landfill currently covered with geomembrane cover. DTSC determined that "[u]nderground temperatures recorded at [the Landfill] between January 9, 2025 and February 19, 2025 demonstrate the SET event has expanded beyond the original 30 acres in the northwestern portion of the landfill in Cell 1/2A, Module 2B/3, Module 4, and Module 2B/3/4 P2," and, as of April 1, 2025, encompassed "approximately 90 acres of [the Landfill]." *See* **Enclosure A** at pp. 5-6. Similarly, the LEA concluded that the reaction was continuing to expand as of May 1, 2025: "Contrary to CCL's stated belief that the reaction has not expanded, new temperature data from the recently installed TMPs . . . indicates that the reaction is expanding." *See* **Enclosure B** at p. 5. These statements were consistent with the findings of Dr. Timothy Stark, a leading landfill expert, based on a review of Waste Borehole Maximum Temperature Profiles Over 6 Weeks from January 9, 2025 to

[1] The DTSC ISE Order and the LEA Compliance Order contain specific requirements for the work to expand the geomembrane cover and for the geomembrane cover, which are hereby incorporated by reference. These requirements include, without limitation: "The geomembrane cover shall accommodate landfill settlement/subsidence, sufficiently limit the transmission of gases (e.g. methane permeance less than 2.5x10-13 m/s using ASTM D1434), and provide durability from foot traffic, exposure to ultraviolet radiation, and inclement weather, or motorized equipment, if any. In addition, the cover shall have material properties to address site-specific conditions, including but not limited to, elevated landfill temperatures, settlement, and harmful landfill gas/odor emissions. This work shall be conducted with appropriate air monitoring, use Construction Quality Assurance techniques, and be consistent with South Coast AQMD's order and other applicable requirements. The geomembrane thickness shall be adequate to withstand the activities and conditions at the facility, but no less thick than 40 mil, with material consistent to prevent heat degradation and control odors and emissions as documented in the Stark Memo, Exhibit 6," and "Install a 40- to 60-mil thick tan or green HDPE-EVOH textured geomembrane underlain by a minimum 6 oz/sy nonwoven geotextile over approximately 100 acres outside the existing geomembrane cover. This new barrier must be welded to the existing 30-mil-thick white HDPE geomembrane or placed in a suitable anchor trench. A construction and quality assurance/quality control (QA/QC) plan must be submitted for approval." *See* **Enclosure A** at pp. 11-12; **Enclosure B** at p. 2.)

[2] The Reaction Committee was formed in response to the South Coast Air Quality Management District ("SCAQMD") Stipulated Order of Abatement (Case No. 6177-4) to review applicable data, estimate the extent of the reaction, and determine the reaction area. The findings of the Reaction Committee have been disputed by regulatory agencies, such as CalRecycle, which has asserted that the "Reaction Committee has taken a conservative approach in determining the reaction area," disregarding critical data such as carbon monoxide results. *See* **Enclosure C** at pp. 6-7.

February 19, 2025, that CCL's contractor "believes the SET Event covers about 28 acres as of February 20, 2025 whereas [Dr. Stark's] extent of the SET Event covers about 90 acres." *See* **Enclosure** A, Exhibit 6 at p. 6. Analysis of temperature monitoring probe data demonstrates that the reaction has migrated beyond the area of the Landfill covered with geomembrane cover.

Further, various statements of state and local agencies, based on analyses of temperature monitoring and other data, confirm that the reaction at the Landfill has the potential to expand to the entire main canyon of the Landfill. On March 28, 2025, CalRecycle issued a letter ("CalRecycle Letter") to the LEA stating, "The reaction area is expanding, and the current containment strategy has failed." *See* **Enclosure C**, CalRecycle Letter at pp. 18-19. CalRecycle based its conclusion on an analysis of various reaction metrics, including temperature, landfill gas levels, settlement, cover fissures, leachate outbreaks, damage to the Landfill's gas collection and control system, and emissions and odors, among other metrics. *See* **Enclosure C,** CalRecycle Letter at p. 5. Similarly, DTSC found that, "Without additional action, the SET event may consume the entire waste fill in the Main Canyon, which could threaten the stability of the southern toe of the waste fill in Cell 8A." *See* **Enclosure A** at p. 6.

The potential for the reaction to affect the entire main canyon of the Landfill warrants expansion of the geomembrane cover over the remaining uncovered portion of the Landfill. Indeed, Dr. Stark has confirmed that given the lack of containment strategy for the reaction, that "the only option for controlling odors and emissions is to cover the area with a geomembrane . . . over which the temperature monitoring probes (TPs) have been installed." *See* **Enclosure A** at Exhibit 6, p. 4. Dr. Stark specifically recommended extending the cover to "cover about 183 acres and leave only about 13 acres at the southern end of the [Landfill] uncovered for current disposal operations." *See* **Enclosure A** at Exhibit 6, p. 5. CalRecycle also recommended installing geomembrane cover "over the approximately 100 acres outside of the current geomembrane cover." *See* **Enclosure C**, CalRecyle Letter at p. 19.

CCL reported to the LEA that it completed the installation of 30-mil HDPE geosynthetic cover over approximately 44.6 acres of the reaction area and over approximately 1.3 acres over the disposal area in accordance with the west toe drain workplan, as of January 17, 2025. *See* **Enclosure D**. CCL has reported that "[t]he cover has contributed to the substantial decrease of odors at the Landfill." *See* **Enclosure E** at p. 4.

Notwithstanding completion of the initial geomembrane cover, members of the community surrounding the Landfill continue to report odors from the Landfill. According to CCL's Notice of Violation Log, available at https://chiquitacanyon.com/reports/notice-of-violation-log/, SCAQMD has issued approximately 50 Notices of Violation to CCL for discharging air contaminants from the Landfill, based on odor complaints from the community, between February 2025 and July 8, 2025.

State and local regulatory agencies agree that expanding the geomembrane cover will address the ongoing odor issues. DTSC stated: "Extending the area covered by a geomembrane is necessary to adequately control infiltration of oxygen and water into the landfill waste, and to control production of gas emissions, odors, and leachate." *See* **Enclosure A** at p. 11. CCL has even acknowledged that the geomembrane cover can effectively mitigate odors: "Chiquita agrees that installation of additional cover may be an appropriate method for mitigating potential odor impacts." *See* **Enclosure E** at p. 4.

EPA concurs with the state and local regulatory agencies that covering the remaining uncovered portion of the Landfill with geomembrane cover is a necessary and appropriate measure to control the Landfill reaction and related odors. Expanding and improving the geomembrane cover will, among other things, control the migration of odors from the Landfill and, therefore, mitigate off-site impacts from odors or emissions.

Further, extending the geomembrane cover will control infiltration of oxygen and water into the landfill mass, which can help prevent the expansion of the smoldering or subsurface reaction occurring at the Landfill.

The Additional Work, therefore, serves the dual objectives of the Master Work Plan and the UAO, as set forth above.

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 Plan and Opportunity to Meet and Confer

EPA directs CCL to submit a Work Plan for the Additional Work within fifteen (15) days of this letter to EPA for approval, in accordance with Paragraph 90 of the UAO. Within five (5) days after the receipt of this letter, CCL shall have the opportunity to meet or confer with EPA to discuss the Additional Work. On approval of the 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,

/s/ Amy C. Miller-Bowen, 07/23/2025

Amy C. Miller-Bowen
Enforcement and Compliance Assurance Division Director
U.S. Environmental Protection Agency, Region 9

/s/ Michael Montgomery, 07/24/2025

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

Enclosures
**Enclosure A – DTSC ISE Order**
**Enclosure B – LEA Compliance Order**
**Enclosure C – LEA March 2025 Letter attaching CalRecycle March 2025 Letter**
**Enclosure D – Cover Completion Report**
**Enclosure E – CCL Notice of Intent to Comply with DTSC ISE Order**

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
Todd Sax, California Environmental Protection Agency
Joel Jones, United States Environmental Protection Agency
Roshni Brahmbhatt, United States Environmental Protection Agency
Kaoru Morimoto, United States Environmental Protection Agency
Rick Sakow, United States Environmental Protection Agency
Tyler Holybee, United States Environmental Protection Agency
Mark Anthony Relon, United States Environmental Protection Agency
Tara Frost, United States Environmental Protection Agency
Laura Friedli, United States Environmental Protection Agency