addition to the stipulated modifications. The public was given the opportunity to testify, evidence was received, and the matter was submitted. The Hearing Board finds and decides as follows:

## **FINDINGS OF FACT**

- 1. South Coast AQMD is a body corporate and politic established and existing pursuant to Health and Safety Code §§ 40000, *et seq.* and §§ 40400, *et seq.*, and is the sole and exclusive local agency with the responsibility for comprehensive air pollution control in the South Coast Basin.
- 2. Respondent operates a landfill/solid waste disposal facility known as Chiquita Canyon Landfill ("CCL") located at 29201 Henry Mayo Dr., Castaic, California, 91384, South Coast AQMD Facility ID No. 119219. Respondent operates within the South Coast AQMD's jurisdiction and is subject to the South Coast AQMD's rules. The landfill/solid waste disposal site has a footprint of approximately 400 acres pursuant to a Conditional Use Permit issued by the County of Los Angeles. Chiquita was most recently granted a renewed Conditional Use Permit in 2017 to allow continued operations. Under its current use permit, CCL is allowed to accept an average of 6,616 tons per day ("TPD") of solid waste between the hours of 4:00am to 5:00pm Monday through Saturday. CCL may also accept green waste and beneficial reuse materials. CCL may accept a maximum of 2,800,000 tons per year of solid waste and beneficial reuse material combined.
- 3. South Coast AQMD Rule 402 and California Health and Safety Code ("H&S Code") Section 41700 prohibit the discharge, from any source whatsoever, such quantities of air contaminants or other material which causes injury, detriment, nuisance, or annoyance to any considerable number of persons or the public, or which cause, or have the natural tendency to cause, injury or damage to business or property.
- 4. **South Coast AQMD Rule 102 and H&S Code Section 39013** define "air contaminant," including as used in Rule 402 and Section 41700, as "any discharge, release, or other propagation into the atmosphere directly or indirectly caused by man and includes, but is not limited to, smoke, charred paper, dust, soot, grime, carbon, fumes, gases, odors, particulate matters, acids or any combination thereof."
- 5. **South Coast AQMD Rule 431.1(c)(2)** prohibits burning, in any equipment requiring a permit to operate, landfill gas with sulfur compounds of greater than 150 parts per million by

volume ("ppmv") calculated as hydrogen sulfide ("H<sub>2</sub>S") averaged daily.

facilities in compliance with all Title V permit conditions at all times.

South Coast AQMD Rule 3002(c)(1) requires operators to operate all Title V

South Coast AQMD Rule 203(b) requires all facilities to operate in compliance with

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all conditions in their permit to operate.

multiple collection headers and blowers for venting landfill gas, a landfill gas treatment system, a condensate/leachate collection system and two flares which combust landfill gas. CCL also has an active permit application for an additional third flare which, if permitted, would be incorporated into its landfill gas collection and control system.

- 15. South Coast AQMD alleges Respondent is inadequately containing landfill gas, leachate, and associated surface emissions at CCL, which cause odor and other unlawful emissions from the landfill.
- 16. From January to September 2023, South Coast AQMD received more than 2,100 complaints of an odor nuisance from the public, with CCL as the alleged source. Complaints include odor descriptions of both trash and landfill gas, but Petitioner and Respondent believe that all odors complained of related to landfill gas, leachate, and associated surface emissions rather than trash or the working face.
- 17. CCL is currently experiencing a subsurface reaction or elevated temperature landfill event over an inactive portion of the landfill that is causing increased temperatures, increased production of landfill gas, and increased production of leachate, as well as fugitive emissions of landfill gas from the surface of the landfill. The area of the landfill affected by the reaction is located approximately 1000 feet from the nearest resident. South Coast AQMD alleges that the ongoing subsurface reaction is the source of the odor complaints received from the public, and the root cause of an ongoing public nuisance.
- 18. South Coast AQMD Inspectors investigated the complaints and traced some of them back to CCL and confirmed CCL as the source of the odors on numerous occasions, and have consistently traced odors back to the area of the landfill affected by the reaction rather than the working face. Between May and September 5, 2023, South Coast AQMD issued 58 Notices of Violation ("NOVs") against Respondent for violating South Coast AQMD Rule 402 and H&S Code § 41700.
- 19. On September 6, 2023, the Hearing Board held a hearing on South Coast AQMD's Petition for an Order for Abatement. At the conclusion of the hearing, the Hearing Board issued a Stipulated Order for Abatement ("Stipulated Order").

on October 20, 2023. South Coast AQMD had both the air and leachate samples analyzed. In some,

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1	background, both at the fence line and in the community. On review of all sample results, South
2	Coast AQMD Laboratory staff were unable to make conclusive determination about the impact(s)
3	to the community, but determined that additional monitoring and/or sampling was recommended to
4	develop a more complete understanding. Around that time, South Coast AQMD requested real-time
5	access to Respondent's Community Air Monitoring ("CAM") network, which it maintains pursuant
6	to a requirement from the Los Angeles County Department of Regional Planning, as a condition of
7	Respondent's Conditional Use Permit. By January 10, 2024, South Coast AQMD Monitoring and
8	Analysis Division staff had been given real-time access to some, but not all, of the air monitors
9	within Respondent's CAM network. South Coast AQMD Monitoring and Analysis Division staff
10	have also been provided laboratory reports of additional air samples taken in the community pursuant
11	to a requirement from Los Angeles County Department of Public Health, acting as Respondent's
12	LEA.
13	24. On several successive inspections, South Coast AQMD Inspectors continued to
14	routinely observe leachate exposed to the ambient air. Inspectors observed leachate at times bubbling
15	or boiling, free flowing from the surface of the landfill, pooling at the landfill, channeling through
16	soil at the landfill, and flowing to concrete lined drainage where Respondent had installed
17	checkdams to prevent the leachate from leaving Respondent's property. South Coast AQMD
18	Inspectors observed that Respondent had employed vacuum trucks to remove the leachate from the
19	concrete-lined drainage channels. On some inspections, South Coast AQMD Inspectors observed
20	leachate shooting into the air as a geyser. Where the leachate was discharged as a geyser, flowing or
21	channeling across the landfill, or ponding at the landfill, the surrounding soil became saturated with
22	leachate. The leachate-saturated soil also exhibited a foul-smelling odor. In several instances, South
23	Coast AQMD Inspectors observed that Respondent did not take immediate actions to remediate
24	either the leachate or the saturated soil prior to the leachate reaching the concrete channels.
25	25. Also in early October, South Coast AQMD Inspectors observed Respondent
26	conducting landfill excavation activities within the Reaction Area, including to install a French drain
27	system as agreed to by Respondent following recommendation by Respondent's LEA and
28	CalRecycle. South Coast AQMD Inspectors observed several aspects of this excavation that did not

1	employ mitigation measures to prevent odors. Inspectors observed track-out through leachate
2	puddles, and stockpiling without cover of odorous leachate-saturated soil, among other things. Upon
3	review, South Coast AQMD Inspectors confirmed that Respondent did not have an approved
4	Landfill Excavation Plan as required by Rule 1150. South Coast AQMD issued Respondent NOV
5	P75296 on November 15, 2023 for conducting a landfill excavation without an approved plan,
6	among other violations. Respondent disputes this violation, as the excavation work was required to
7	repair the western slope of the landfill to ensure that all waste remained on the landfill liner, redirect
8	leachate seepage so that it remains on the lined area of the landfill and under a scrim (plastic cover),
9	and address the violations noted in the LEA's site inspection report. Respondent has since concluded
10	its remediation of the western slope and the associated leachate seeps.
11	26. On October 31, 2023, Respondent submitted the initial flux chamber study, required
12	by Condition 12(d) of the Stipulated Order. The study concluded that, if the emissions observed
13	during the study held constant for an entire year, a total of around 43,000 tons per year of
14	uncontrolled/fugitive surface emissions would be produced at the Landfill. Of those emissions,
15	approximately 9.33 tons per year would be benzene, and a total of approximately 100 tons per year
16	are toxic organics as measured by EPA Method TO-15.
17	27. On November 6, 2023, Respondent submitted the report on Landfill Best
18	Management Practices for Mitigating Landfill Reaction Odors. Among other mitigation evaluated
19	and recommended, the report recommended eliminating leachate seeps to reduce leachate odors. The
20	report provided a set of best management practices for eliminating leachate seeps and noted that
21	Respondent is already and should continue following these best management practices. The report
22	also recommended that Respondent "continue its efforts to address the leachate seep on the western
23	slope by digging into the waste to redirect the leachate and prevent it from surfacing."
24	28. On December 1, 2023, Respondent submitted the Ambient Air and Emissions
25	Monitoring Assessment required by Condition 26 of the Stipulated Order. Among other things, the
26	study concluded that macro-level modeling showed that gases with detectable levels of odors "ha[ve]
27	pathways from [the Landfill] to communities north of the Landfill in wind conditions less than 7
28	mph with the strongest concentrations in the 0.5 to 3 mph range." However, the report noted that

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1	particulate matter. South Coast AQMD Monitoring and Analysis staff determined that, based on
2	totality of evidence, particulate matter was not the primary pollutant of concern for the current
3	ongoing issues at the Landfill. Based on review of H2S continuous monitoring across all six
4	monitors, South Coast AQMD determined that approximately 35% of all hourly average readings
5	over the past year exceeded the California Office of Environmental Health Hazard Assessment
6	("OEHHA") acute standard of 30 parts per billion ("ppb") on a 1-hour average. Some readings,
7	across a 1-hour average, exceeded 300 ppb, ten times the OEHHA standard. The highest single
8	reading exceeded 500 ppb. South Coast AQMD Monitoring and Analysis staff concluded from this
9	data review that there was clear indication that air emissions from the Landfill were having
10	significant impact to the community. However, Monitoring and Analysis staff were not given access
11	to review Respondent's maintenance, quality assurance/quality control ("QA/QC") policies, so it
12	was unable to verify accuracy of the data collected.
13	34. The Los Angeles County Department of Public Health also received monitoring data
14	of these community monitoring stations, including, eventually, real-time access to this data. Dr.
15	Nichole Quick, the Department's Deputy Director for Health Protection, reviewed the data and
16	concluded that, if assumed accurate, it showed evidence that there were likely health impacts
17	observed in the community due to H2S exposure. Dr. Quick noted that physiological health impacts
18	of H2S at the 1-hour acute standard of 30 ppb would often include headaches, nausea, and respiratory
19	irritation. Dr. Quick noted that this opinion is consistent with OEHHA comprehensive risk
20	assessment guidelines. These guidelines are also used in setting the California Ambient Air Quality
21	Standards. Dr. Quick noted that because the data indicated significant exceedances of this standard,
22	symptoms could be more prolonged or intense. Dr. Quick last noted that because the data indicated
23	that H2S exposure in the community has been ongoing for over one year, it may also be appropriate
24	to evaluate impacts using OEHHA's chronic standard, defined as a one year or greater exposure
25	duration. The chronic H2S standard set by OEHHA is 8 ppb.
26	35. South Coast AQMD Monitoring and Analysis staff also reviewed laboratory results
27	of 24-hour samples taken at the community monitoring stations which were analyzed for air toxics.

28 Not all laboratory reports were provided to South Coast AQMD for review, and reports were

1	provided inconsistently. Of those reviewed, several indicated levels of benzene above expected
2	background levels, but below the 8-hour acute standard of 8ppb set by OEHHA. South Coast AQMD
3	Monitoring and Analysis staff reviewed that at least one sample result, collected at MS-10 on
4	November 6, 2023, had reported benzene level well above the 8-hour acute standard, measured at
5	69.5 ppb. South Coast AQMD learned about the result on December 8, 2023 (though the lab report
6	was dated November 9, 2023). South Coast AQMD Monitoring and Analysis staff discussed this
7	result with the third-party lab that performed the analysis to inquire about potential anomalies in the
8	lab methods. The third-party lab confirmed the validity of the results. Lab samples collected at other
9	monitoring sites on the same day were all below the OEHHA standard for benzene, though one other
10	sample from a nearby monitor had reported benzene levels higher than expected background levels
11	at 2.67 ppb.
12	36. Dr. Quick, based on review of the laboratory sample reports made available to South
13	Coast AQMD, concluded that there is ample evidence that suggests potential health impacts to the
14	community from air contaminants. The Los Angeles County Department of Public Health had also
15	received and reviewed letter memoranda issued to the public from Respondent's toxicologist
16	consultants, Dr. Pablo Sanchez-Soria and Dr. Angela L. Perez, both of CTEH, which characterize
17	the monthly continuous and 24-hour samples in the community. On October 2, 2023, Dr. Sanchez-
18	Soria and Dr. Perez co-signed a letter which stated in bold-face type: "Based on our review of the
19	continuous air monitoring and discrete air sampling data, there is no evidence of increased health
20	risk to the community." On October 6, 2023, Dr. Quick, on behalf of the Los Angeles County
21	Department of Public Health, responded to Dr. Sanchez-Soria and Dr. Perez, writing that "CTEH's
22	conclusive statement in the Memorandum: that after its 'review of the continuous air monitoring and
23	discrete air sampling data, there is no evidence of increased health risk to the community' is not
24	supported by sufficient data or analysis, is premature and misleading." The Department of Public
25	Health also provided seven technical issues with CTEH's letter.
26	37. On October 31, 2023, Dr. Sanchez-Soria and Dr. Perez issued another letter
27	memoranda to the public, which characterized the August and September 2023 community
28	monitoring. The letter stated, in bold-face type: "Based on our review of the continuous air

1	monitoring and discrete air sampling data from August through September 2023, no adverse health
2	effects are anticipated across the community." On December 5, 2023, Dr. Sanchez-Soria and Dr.
3	Perez issued another letter memoranda to the public, which characterized the August, September
4	and October community monitoring. The letter again stated, in bold-face type: "Based on our review
5	of the continuous air monitoring and discrete air sampling data from August through October 2023,
6	no adverse health effects are anticipated across the community." Dr. Sanchez-Soria was designated
7	by Respondent to serve on the DMS (now Reaction) Committee as the public health expert. Dr.
8	Sanchez-Soria did not release any other statements to the public acknowledging or addressing any
9	other expert analysis generated by the DMS Committee which may have implications for public
10	health impacts. Dr. Sanchez-Soria, though he attended the September 6, 2023 hearing, also did not
11	address any of the evidence received by the Hearing Board from members of the public who testified
12	to living in the affected community and already experiencing adverse health effects.
13	38. Following the District's Petition for a Status/Modification hearing, the Parties began
14	negotiations regarding potential modifications. The Parties proposed a partially-stipulated
15	Modification. The South Coast AQMD proposed additional modifications that were not stipulated
16	to by Respondent.
17	<u>CONCLUSIONS</u>
18	39. The Respondent is in violation of Section 41700 of the Health and Safety Code and
19	Rule 402 of the South Coast AQMD. Respondent's facility is experiencing a subsurface reaction
20	over an approximately 30-acre portion of the Landfill. This portion is the source of significant odors,
21	which are causing injury, detriment, nuisance and/or annoyance to a considerable number of persons
22	and the public. The reaction is causing increased production of landfill gas and leachate which is not
23	being fully contained within Respondent's permitted landfill gas or leachate collection and treatment
24	systems. The landfill gas and leachate cause odors and cause injury, detriment, nuisance, or
25	annoyance to a considerable number of persons and the public, or endanger the comfort, repose,
26	health or safety of such persons and the public.
27	40. The Respondent is in violation of South Coast AQMD Rules 431.1(c)(2), 3002(c)(1),
28	and 203(b). Rule 431.1(c)(2) prohibits burning, in any equipment requiring a permit to operate,

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The Respondent is in violation of Rule 430, Rule 3002(c)(1) and Rule 203(b) for failing to report a breakdown to the South Coast AQMD in equipment which causes a violation of a rule of regulation of the South Coast AQMD. Respondent has failed to maintain the full and proper working order of the leachate collection system, as required by Respondent's leachate collection system permit. Respondent's contention that the leachate collection system has not had a breakdown is refuted by the weight of the evidence. Fully and properly operated, the leachate collection system captures leachate and collects it subsurface. However, leachate has been and continues to evade the leachate collection system and is exposed to ambient air and is only collected by separate, external trucks, which are not part of Respondent's leachate collection system. Accordingly, the Hearing Board concludes that there has been, and is ongoing, a breakdown in Respondent's leachate collection system. Respondent has not submitted a breakdown notification pursuant to South Coast

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a.

Respondent shall contract with a trained third party to conduct odor surveillance each operating day within thirty (30) days after the issuance of the September 6, 2023 Order (the "Initial Order"). Respondent shall conduct odor surveillance each operating day until the trained third party has been contracted. Respondent, or Respondent's contractor, as applicable, shall conduct community odor surveillance at least twice each operating day, once between the hours of 7:00 a.m. and 11:00 a.m. and once between the hours of 8:00 p.m. and 12:00 a.m. If a three-week period passes without Respondent receiving a Rule 402 NOV from the South Coast AQMD, or detecting odors at above an intensity of 2 at more than 2 stops during a single surveillance, then Respondent, or Respondent's contractor, as applicable, may stop conducting the odor surveillances. If Respondent, or Respondent's contractor, as applicable, has stopped conducting the odor surveillances pursuant to this condition and Respondent subsequently receives a Rule 402 NOV from the South Coast AQMD, then Respondent, or Respondent's contractor, as applicable, must resume conducting the odor surveillances until another three-week period passes with no Rule 402 NOVs issued by the South Coast AQMD, or without Respondent or Respondent's contractor, as applicable, detecting odors at above an intensity of 2 at more than 2 stops in a single surveillance.

b. Respondent, or Respondent's contractor, as applicable, shall conduct an odor surveillance at each of the following Surveillance Locations:

Stop	Description
1.	Intersection of Chiquito Canyon Road and driveway leading to the LA County Fire's Del Valle Regional Training Center
2.	Intersection of Chiquito Canyon Road and Lincoln Avenue
3.	Intersection of Lincoln Avenue and Jackson Street
4.	Intersection of Lincoln Avenue and Harding Avenue
5.	Intersection of Buchanan Way and Chiquito Canyon Road
6.	Intersection of Chiquito Canyon Road and San Martinez Road
7.	Intersection of San Martinez Road and Morningside Drive
8.	Intersection of Lexington Drive and Morningside Drive

Stop	Description
9.	Intersection of Val Verde Road and Trellis Road
10.	Intersection of San Martinez Road and Euclid Ave.
11.	Intersection of San Martinez Road and Keningston Road
12.	Intersection of Hunstock Street and Windsor Road
13.	Intersection of Del Valle Road and Silver Street
14.	Intersection of Del Valle Road and Hasley Canyon Road
15.	Intersection of Hasley Canyon Road and Gibraltar Lane
16.	Intersection of Gibraltar Lane and Alton Way
17.	Intersection of Gibraltar Lane and Springvale Lane
18.	Intersection of Castlebury Place and Picadilly Place
19.	Intersection of Gibraltar Lane and Cambridge Avenue
20.	Intersection of Cambridge Avenue and Hasley Canyon Road
21.	Intersection of Creekbed Road and Firebrand Drive
22.	Intersection of The Old Road and Hillcrest Parkway
23.	Intersection of Hillcrest Parkway and Park Vista Drive at Castaic Elementary School
24.	Intersection of Hasley Canyon Road and Commerce Center Drive (Santa Clarita Valley International School & PlayMakers Preschool)
25.	Intersection of The Old Road and Live Oak Road
26.	Intersection of Live Oak Road and Hidden Trail Road
27.	Intersection of Rangewood Road and Buckskin Drive
28.	Intersection of Live Oak Elementary School at Saddleridge Way
29.	Intersection of Quincy Street and Cambridge Avenue
30.	Intersection of Commerce Center Drive and Witherspoon Parkway
31.	Intersection of Franklin Parkway and driveway leading to the United States Postal Service
32.	Intersection of Henry Mayo Drive and Cambridge View Drive, leading into the Valencia Travel Village RV Resort

- c. Respondent, or Respondent's contractor, as applicable, conducting the odor surveillance shall not have visited the Reaction Area (as defined in Condition 9(a)), working face, or other areas where exposed trash or landfill gas odors exist at CCL within four hours prior to conducting an odor surveillance.
- d. Odor surveillance shall be conducted by proceeding to each Surveillance Location and making an assessment of each parameter listed in Condition No. 1(e).

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Assessment of each parameter shall be made while standing in ambient air and shall not be made from within a vehicle.

e. Respondent, or Respondent's contractor, as applicable, shall record odor surveillance results in an "Odor Surveillance Log" before the end of the work day. The Odor Surveillance Log shall contain, but not be limited to: (1) the date and time; (2) stop number; (3) the name of the person performing the surveillance and written acknowledgement that they did not visit the working face or other on-site areas where exposed trash or landfill odors such as, but not limited to landfill gas odors, refuse or refuse contaminated material odors, or landfill liquids/landfill leachate odors exist within a four hours prior to conducting an odor surveillance, (4) the wind speed and direction; (5) a narrative description of any odor detected (including the type of odor, such as trash, landfill gas, chemical, odor neutralizer, as applicable); (6) current weather conditions; and (7) an assessment of the strength of any odor detected using the scale below:

0	No odor detected
1	Very light odor detected
2	Light odor detected
3	Moderate odor
4	Strong odor
5	Very strong odor

If Respondent, or Respondent's contractor, as applicable, conducting the odor surveillance detects odors at three or more stops that are determined to be of a strength of 3 or higher on the scale above during any surveillance occurring during Respondent's operating hours (between the hours of 4:00am and 5:00pm), Respondent, or Respondent's contractor, as applicable, shall immediately notify landfill operating staff. Respondent shall designate an employee able to receive and direct action related to such notifications promptly. Upon receiving such notification, Respondent shall, within 30 minutes of receipt, review and initiate modifications, as appropriate, to fan placement, and conduct a visual inspection of

the Reaction Area (as defined in Condition 9(a)) to assess, and address as needed, any cracks in the surface of the area.

Respondent shall maintain records of all Odor Surveillance Logs for the duration of this
Order and shall make them available for inspection by South Coast AQMD upon request.
Respondent shall maintain a written record of any notification received, and any action
taken in response to notice under Condition 1(f).

## Reducing Sulfur in the Landfill Gas to be Flared

- 3. Respondent shall expedite, to the maximum extent feasible, replacement of granular activated carbon media in the Landfill Gas Treatment System (under Permit G55163, A/N 603249), including the execution of contracts, as well as the delivery, replacement, startup, and testing of any operation necessary to replenish and/or replace spent granular activated carbon media in the Landfill Gas Treatment System. Respondent shall ensure adequate stock of all odor control products and supplies are maintained on site.
  - a. Respondent shall monitor and record the landfill gas temperature at least daily at the inlet of the Landfill Gas Treatment System. The temperature of the landfill gas shall not exceed 145 F.
  - Respondent shall prioritize and maximize the use and operation of landfill gas flares No. 2 (under Permit G73696, A/N 645450) and No. 3 (under A/N 624296) over landfill gas flare No. 1 (under Permit G73696, A/N 645450) to the maximum extent feasible when combusting landfill gas at the facility (FID 119219). Once Respondent receives the necessary permits and puts the new landfill gas flare discussed in Condition 20 ("landfill gas flare No. 4") into operation, Respondent shall prioritize and maximize the use and operation of landfill gas flares Nos. 3 and 4 over landfill gas flares No. 1 and No. 2 (under Permit G73696, A/N 645450) and prioritize and maximize the use and operation of landfill gas flare No. 2 over landfill gas flare No. 1 to the maximum extent feasible when combusting landfill gas at the facility (FID 119219).
- 5. Respondent shall sample, analyze, and record the landfill gas sulfur compounds combusted in each flare (as measured at sampling location FL-150 that is representative of the gas

combusted in the flares under Permit G73696, A/N 45450; A/N 624296) at least once each week using colorimetric tests for H<sub>2</sub>S and at least once each week sample for analysis for total sulfur compounds as H<sub>2</sub>S using South Coast AQMD Method 307-91. Additionally, Respondent shall sample, analyze, and record the landfill gas sulfur compounds found in the raw, pre-treatment and pre-control, landfill gas collected from the Reaction Area (as defined in Condition 9(a)) at least once each calendar month for total sulfur compounds as H<sub>2</sub>S using South Coast AQMD Method 307-91.

- a. Respondent shall record South Coast AQMD Method 307-91 analysis upon receipt of laboratory analysis report. Each recorded measurement or result shall be documented with the time and date when the measurement or sample collection was conducted, and initialed by the personnel that conducted the measurement or sample collection.
- b. Sulfur compound readings and analysis shall be reported to South Coast AQMD pursuant to Condition No. 8.
  - Tedlar bags used for Method 307-91 sampling and analysis shall not contain droplets or debris.
  - ii. Colorimetric tube readings shall be conducted by taking a reading from a Tedlar bag sample using an appropriate colorimetric tube sample collection pump. All sampling shall be performed in accordance with the operational manual for the colorimetric tube sample collection pump.
  - iii. Colorimetric tube readings shall use colorimetric tubes of appropriate concentration range and shall be reported as follows:
    - Respondent shall first use the estimated appropriately ranged colorimetric tube.
    - 2. If the resulting reading reaches the upper concentration of the colorimetric tube concentration range, subsequent reading(s) shall be taken using a colorimetric tube with a concentration range that has a larger upper concentration threshold until the result is not the upper concentration

- threshold of the concentration range. Report the tube concentration range and tube concentration result for each reading.
- 3. If the reading results in the lower concentration of the colorimetric tube concentration range or does not register a result, subsequent reading(s) shall be taken using a colorimetric tube with a concentration range that has a smaller lower concentration threshold, if available, until the colorimetric tubes available to the facility result in:
  - a. A reading that is within the concentration range of the tube,
  - b. A reading is the lower concentration of the colorimetric tube concentration range, or
  - c. The colorimetric tube does not register a result.
- 4. When the result is the lower concentration of the colorimetric tube concentration range or does not register a result, the lower concentration of the colorimetric tube concentration shall be considered the concentration result. Report the tube concentration range and tube concentration result for each reading. If a lower range colorimetric tube is not used and the tube concentration result is below the lower range of the colorimetric tube used, Respondent shall report the result as "less than" or "<" the lower range value of the tube. Notwithstanding the forgoing, Respondent shall ensure that the colorimetric tube result is below the upper range of the colorimetric tube used and shall report the precise result of all results above the lowest range of the colorimetric tube used.</p>
- 6. Respondent shall maintain adequate stock of appropriately ranged colorimetric tubes.
- 7. Respondent shall maintain a record of the following information, and provide such records to the South Coast AQMD pursuant to Condition No. 8:
  - a. The hourly and daily flow of landfill gas combusted, in standard cubic feet, in each flare (flares No. 1 & No. 2 under Permit G73696, A/N 645450; flare No. 3 under A/N 624296), the thermal oxidizer (under Envent Corporation A/N 645484), the

second thermal oxidizer/flare (under Zeeco A/N 648539), and any other equipment used to combust or control landfill gas at the facility, and the total amount of landfill gas combusted at the facility;

- b. The daily flow of landfill gas not flared, in standard cubic feet, if applicable; and
- c. The results of the sulfur readings, sampling, and analyses, calculated as  $H_2S$  with the time and date when each measurement or sample collection was conducted.
- 8. Respondent shall submit a monthly written report on the landfill operation, progress of the status of the Landfill Gas Flares (flares No. 1 and No. 2 under Permit G73696, A/N 645450; flare No. 3 under A/N 624296), Landfill Gas Treatment System (under Permit G55163, A/N 603249), and efforts to resolve the total sulfur concentration in the landfill gas exceeding 150 ppmv calculated as H<sub>2</sub>S. Monthly reports shall be submitted to Respondent on the third Monday of each subsequent month (except for this first month as described below) not later than 5:00pm via email to 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). The first report for August 2023 shall be due on September 30, 2023. Each monthly report shall contain at a minimum the following information:
  - a. The landfill gas sulfur compounds measurements and laboratory analysis with the time and date of each measurement or sample collection, as identified in Condition No. 5.
  - The landfill gas records and calculations identified in Condition No. 7, in a Microsoft Excel spreadsheet format.
  - c. The integrated landfill surface sample analysis and landfill surface monitoring readings identified in Condition Nos. 9 and 10, in a Microsoft Excel spreadsheet format.
  - d. Estimated schedule for any replacement or refurbishment of granular activated carbon media in the Landfill Gas Treatment System (under Permit G55163, A/N 603249) identified in Condition No. 3. The landfill gas temperature at inlet of the

- Landfill Gas Treatment System (under Permit G55163, A/N 603249) identified in Condition No. 3(a).
- e. Description of any problems or delays, if any, encountered or projected to occur pertinent to the execution of contracts, as well as the delivery, replacement, startup, and testing of any operation necessary to replenish and/or replace spent granular activated carbon media in the Landfill Gas Treatment System (under Permit G55163, A/N 603249). Respondent shall submit copies of documents or other records to support any problems or delays noted pursuant to this Condition No. 8(e) along with such description.
- f. Specifications of the equipment and materials used for the weekly colorimetric tests (only if there is a change from the previously provided specifications of the colorimetric instrumentation or method used).
- g. All wellhead temperature and CO concentration readings, lab analysis, and Draeger tube readings for landfill gas from the past month in a Microsoft Excel spreadsheet format.
- h. A graphic map showing location of each well with temperature exceedances (above 145 degrees Fahrenheit), each well with CO exceedances (above 1,000 ppmv and below 1,500 ppmv, and above 1,500 ppmv), and stratification of temperature ranges during that month, which includes a description of any remedial measures taken to address or lower gas well temperatures.
- All vertical liquid impacted landfill gas wells, per Condition No. 17, including a
  description of any remedial measures taken to address or reduce liquids in landfill
  gas wells.
- j. Updates on the investigation into the availability, viability, and utilization, including pilot testing if needed, of an alternative sulfur compound treatment system that controls, treats, or removes dimethyl sulfide ("DMS") and other sulfur compounds, if any.

the specific area(s) or grid(s). Documentation shall be sufficient to show the inaccessibility or dangerous conditions and may include weather forecasts and actual rainfall measurements, or photographs and/or videos that depict the site conditions, that prevent such sampling activities for each specific area or grid affected.

- a. The "Reaction Area" shall be defined initially by the boundary of Cells 1/2A, 2B/3, 4, and Module 2B/3/4 P2. The boundary of the Reaction Area shall be modified to include the associated landfill surface area of the cells and modules that experience well temperatures of at least 170 degrees Fahrenheit, settlement, cracks in the landfill cover, presence and quantity of liquids, and the presence of hydrogen in the landfill gas. The Reaction Committee (defined in Condition No. 12), shall transmit to the South Coast AQMD [attn: Baitong Chen, bchen@aqmd.gov; Nathaniel Dickel, ndickel@aqmd.gov; Christina Ojeda, cojeda@aqmd.gov]: 1) the revised map which clearly displays the proposed boundary change(s) and depicts the new Reaction Area; 2) a narrative summary explaining the rationale behind the proposed changes, including memorializing any dissenting view of any member of the Reaction Committee; and 3) any supporting data relied upon in the decision to revise the Reaction Area.
- b. The Reaction Committee shall review applicable data and shall consider revision to the Reaction Area as frequently as appropriate but shall make a determination about whether to revise the Reaction Area map at least once per month, with the determination and revised Reaction Area map (if applicable) submitted to the South Coast AQMD [attn: Baitong Chen, bchen@aqmd.gov; Nathaniel Dickel, ndickel@aqmd.gov; Christina Ojeda, cojeda@aqmd.gov] no later 7 days following the end of the month.
- 10. Respondent shall conduct instantaneous landfill surface monitoring across the Reaction Area (as defined in Condition 9(a)) at least every two weeks as specified in Rule 1150.1, Attachment A 3.0, beginning no later than seven (7) days after the issuance of this Order.

In the event Respondent is unable to monitor specific landfill surface area(s) or grid(s) due to inaccessibility or dangerous conditions for a technician, Respondent shall document the date and the conditions that do not allow the monitoring of the specific area(s) or grid(s).

11. Respondent shall continue operating its flares and landfill gas treatment system even if the emitted landfill gas exceeds the limits on total reduced sulfur and SO<sub>x</sub> laid out in CCL's permits (Permit G55163, Condition Nos. 11 and 16 and CCL's Facility-Wide Permit, Condition No. 3) and South Coast AQMD Rules 431.1(c)(2), 3002(c)(1), and 203(b). Respondent shall include deviation reporting associated with exceedances of these emissions limits in its semi-annual Title V reports and in accordance with the requirements of Respondent's Title V permit.

## **Investigation of Underlying Reaction and Odor Impacts**

- 12. Respondent shall organize a committee (the "Reaction Committee") consisting of subject matter experts to aid in the investigation, impact assessment, and remediation of the ongoing landfill reaction and resultant odors as specified below. Respondent shall, through retention of one or more consultants and/or designation of one or more new or existing employees, complete the formation of the Reaction Committee within thirty (30) days of the issuance of this Order. Respondent shall, within thirty (30) days of the issuance of this Order, or within ten (10) days of their appointment, if appointment occurs after October 6, 2023, provide to the 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)] the names of all persons included in the Reaction Committee along with a Curriculum Vitae, or other description of the individual's credentials, experience, and/or expertise in the applicable subject matter.
  - a. The Reaction Committee shall include, at a minimum, at least one person with subject matter expertise in each of the following areas:
    - i. Landfill design and operational best management practices;
    - ii. Landfill gas collection/extraction systems, landfill gas condensate/leachate collection systems, and landfill gas control;

- iii. Chemical reaction(s) within landfills leading to formation of and elevated levels of dimethyl sulfide ("DMS") and non-methane organic compounds ("NMOC");
- iv. Public health relating to air quality and exposure to air contaminants including DMS.
- b. Reaction Committee members shall be subject to ongoing oversight by the South Coast AQMD. If in the South Coast AQMD's determination one or more members appointed by Respondent to the Reaction Committee is not serving in this capacity satisfactorily, South Coast AQMD may provide notice to Respondent that the applicable person(s) may no longer serve on the Reaction Committee. Such notice from the South Coast AQMD shall be in writing, and may be transmitted to Respondent through counsel. If Respondent receives such notice from South Coast AQMD, Respondent shall remove the applicable person from any further work or service on the Reaction Committee within ten (10) days. Respondent shall identify and appoint a replacement member of the Reaction Committee, pursuant to Condition No. 12(a) above, within thirty (30) days.
- c. Beginning in March 2024, Respondent shall host a monthly virtual meeting with all members of the Reaction Committee and South Coast AQMD technical staff. The purpose of the monthly meeting shall be to allow Reaction Committee members to provide an update on progress of ongoing and future planned work performed/to be performed pursuant to this Order which is directly related to the subsurface reaction at the Landfill, and allow South Coast AQMD to provide recommendations and/or feedback on such progress.
  - i. To facilitate each meeting, Respondent shall provide South Coast AQMD (attn: Baitong Chen, <u>bchen@aqmd.gov</u>; Nathaniel Dickel, <u>ndickel@aqmd.gov</u>; Christina Ojeda, <u>cojeda@aqmd.gov</u>; Payam Pakbin, <u>ppakbin@aqmd.gov</u>; Kathryn Roberts, <u>kroberts@aqmd.gov</u>; Mary Reichert, <u>mreichert@aqmd.gov</u>) a

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proposed agenda listing the topics to be discussed, and the presenter, not later than ten (10) calendar days prior to the meeting. South Coast AQMD shall have the option to expand the agenda to include additional topics within the purview of the Reaction Committee. If South Coast AQMD elects to expand the agenda, it shall provide notice to Respondent not later than four (4) calendar days prior to the meeting.

- ii. Respondent shall ensure that all members of the Reaction Committee with responsibility for any topic included on the agenda shall attend that month's meeting. At Respondent's election, additional staff or consultants may also attend. At South Coast AQMD's sole discretion, it may invite any staff or consultant of any regulatory agency with jurisdiction over Respondent, including jurisdiction predicated on the subsurface reaction at the Landfill, to participate in and provide recommendations or feedback on any agenda topics.
- iii. South Coast AQMD, and any personnel invited pursuant to the clause above, may provide feedback or recommendations on any topic on the agenda. Comments noted as "recommendations" shall include suggestions to revise, change, expand, or otherwise alter any aspect of the topic discussed on the agenda. All other comments shall be considered feedback.
- iv. Following each monthly meeting, Respondent shall prepare a summary of the meeting, including the topics discussed and all recommendations received. Respondent shall include in the summary a response from the Reaction Committee to all recommendations and, as applicable, any changes made as a result. Respondent, at its election, may also include a summary of and

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response to any feedback received. Respondent shall post the summary of the meeting to the webpage created pursuant to Condition No. 39, not later than twenty (20) days following the meeting.

- d. Respondent, through the Reaction Committee, shall conduct investigations and studies into the cause of the landfill reaction, the impact of air emissions, interim measures to limit odor transport, and corrective measures to reduce or abate the landfill reaction. Such investigations shall include, at a minimum:
  - i. A study into known and possible methods for effective treatment of DMS and preventative mechanisms for DMS formation in landfill gas, including assessment of other landfills and review of scientific studies. By no later than April 30, 2024, Respondent shall provide a report detailing the findings of this Landfill Gas DMS Treatment Study and the proposals for implementation of the treatment methods. This report shall be submitted to South Coast AQMD [Baitong Chen, Air Quality Engineer, (bchen@aqmd.gov); Nathaniel Dickel, Senior Quality Engineer, Air (ndickel@aqmd.gov), and Christina Ojeda, Air Quality Inspector, (cojeda@aqmd.gov)]. Respondent shall submit any required permit applications, with information included, for equipment installations or modifications necessary for implementation of the remedy strategies and/or treatment methods;
  - ii. An investigation and report on 1) the cause of the alleged chemical reaction(s) resulting in the elevated well temperatures, elevated levels of DMS formation in the landfill gas, and elevated levels of NMOC formation in the landfill gas and 2) solutions to slow and stop the reaction(s) in the landfill. Investigation into the cause of the alleged chemical reaction(s) shall include, but not be limited

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to, waste characterization study of waste disposed within the Reaction Area, to the extent records of such waste are within Respondent's possession, including (but not limited to) analysis of chemical and physical characteristics, BTU, moisture content, biological methane potential. Respondent shall also conduct drill core sampling in the Reaction Area (as defined in Condition 9(a)) to assess waste characterization in areas not affected by elevated temperatures at the time of drilling. Respondent shall submit a report on the findings of the investigation by no later than December 8, 2023 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)];

iii. An investigation and report on the feasibility and availability of a continuous community emission monitoring system to conduct continuous monitoring and provide estimates of DMS concentrations at the facility fenceline and within the affected community. By no later than December 1, 2023, Respondent shall submit to the 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)], the feasibility and availability findings of this fenceline and community DMS monitoring program. The findings shall identify all companies, vendors, contractors, and consultants that were inquired regarding the feasibility and availability and the results for each inquiry, including an ultimate decision if monitoring is feasible. If the Reaction Committee deems monitoring under this provision

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feasible, Respondent shall prepare and submit to the 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)] a workplan for the installation of and operation of the required monitoring equipment and related installations within thirty (30) days of the Reaction Committee's decision. This workplan will include a timeline for procurement of monitoring equipment and for the commencement of monitoring. It will also include a timeline for reporting out on the collected data, including a proposal relating to the real-time posting of monitoring data on Respondent's website or other regular report-outs on the data;

iv. A study and report on landfill best management practices and alternative methods to minimize the release of fugitive surface gas and minimize odors from fugitive surface gas, including cover practices at the Reaction Area (as defined in Condition 9(a)) and working face, and how best to address related odorous emissions, such as through the use of misting systems, fans, odor neutralizer, or other means. By no later than November 6, 2023, Respondent shall submit a report detailing the findings of this Fugitive Landfill Gas Odor Mitigation Study and the proposals for the minimization of landfill gas release and odors. This report shall be submitted 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)];

exposure to DMS, including any action levels from other public health or government entities, and including a summary of recommended actions for persons exposed to DMS for acute and long-term durations. By no later than January 15, 2024, Respondent shall submit this report 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)]; and

vi. A report of the health impacts from ongoing and long-term (e.g. greater than one year) exposure to hydrogen sulfide (H2S), or other speciated sulfur compounds, and any other hazardous air pollutants (HAPs), as defined in the federal Clean Air Act, 42 U.S.C. § 7412. The HAPs evaluated in the report shall include those which are detected: (1) in landfill gas over the past twelve months at the Chiquita Canyon Landfill as documented in the initial or additional flux chamber study (per Condition No. 12(f)) or detected in stack emissions testing; (2) in the liquids and leachate samples collected and analyzed (per Condition No. 38); (3) in air sampling performed to determine emissions from exposed liquids/leachate; and (4) in the community pursuant to the enhanced community air monitoring program in exceedance of recommended toxicity screening values published by the US EPA or other applicable screening values where US EPA toxicity screening values are unavailable. The report shall include, but not be limited to, assessment and analysis of any action levels from other public health or government entities in the United States for any such

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constituents, recommended actions for persons exposed to such constituents, and recommendations on how to limit any anticipated adverse health impacts. Such report shall also include a summary of all findings, health impacts and recommendations in an easy-to-read format designed for distribution to and use by the public. By no later than August 1, 2024, Respondent shall submit this report 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)].

- e. Respondent shall make public all reports resulting from investigations and studies done pursuant to this Condition through a link preceded by a brief narrative description on the webpage created pursuant to Condition No. 39.
  - Respondent has conducted an initial flux chamber study pursuant to the direction of the Los Angeles County Department of Public Health. Respondent shall submit a report documenting the findings of the initial study no later than October 31, 2023 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)]. Respondent shall conduct an additional landfill gas flux study for methane, non-methane organic compounds ("NMOC"), toxic air contaminants (TAC), total reduced sulfur ("TRS"), and speciated sulfur compounds to determine the surface flux throughout the landfill. The study shall be conducted through the use of dynamic flux chambers oriented at various locations throughout the landfill site. Respondent shall prepare a proposed protocol for the study based on the results of the initial study and shall submit the protocol 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 by December 31, 2023. A report documenting the differences in the findings between the initial study and the additional study shall be submitted by no later than 90 days after South Coast AQMD approves the protocol 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)].

## Landfill Gas Collection and Leachate/Landfill Gas Condensate Collection and Storage Systems

- 13. Respondent shall expand its gas well system. Respondent shall continue to operate the installed five deep trench collectors in the Reaction Area (as defined in Condition 9(a)) and six leachate extraction pumps along the west slope. Respondent has installed 18 vertical dual extraction wells, and these 18 vertical dual extraction wells shall be connected to the landfill gas system by September 15, 2023 unless the circumstances outlined in Condition 13(a) apply.
  - a. In the event Respondent is unable to meet these deadlines due to inaccessibility or dangerous conditions for a technician, Respondent shall document the date and the conditions that do not allow the installation of the wells and/or their connection to the landfill gas system. Respondent shall submit this documentation to the South Coast AQMD and provide the South Coast AQMD with an updated date of completion for the required work.
- 14. Respondent shall continue to monitor each landfill gas collection system well at least monthly for at least temperature pursuant to 40 CFR Part 63 Subpart AAAA. Respondent shall address wells with a temperature reading of at least 170 degrees Fahrenheit or greater in accordance with 40 CFR 63 Subpart AAAA. Notwithstanding temperature exceedances, Respondent shall continue to operate all wells as necessary to ensure the continued operation of the landfill gas collection system.

- a. Consistent with Respondent's Title V permit and all applicable rules and regulations, Respondent shall ensure the operation of the landfill gas collection system equipment does not result in the release of raw landfill gas or condensate into the atmosphere.
- b. Any breakdown or malfunction of the landfill gas collection system resulting in the emission of raw landfill gas as described in Condition 14(a) shall be reported to the South Coast AQMD by phone (1-800-CUT-SMOG) or other District-approved method within one hour after occurrence or within one hour of the time said person knew or reasonably should have known of its occurrence and immediate remedial measures shall be undertaken to correct the problem and prevent further emissions into the atmosphere.
- 15. Respondent shall continue to evaluate and install, as needed, vertical dual extraction wells to collect both landfill gas and leachate. Respondent shall continue to expand the well-field as needed, and notify South Coast AQMD by October 31, 2023 of the number of wells added, attention to 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). Any subsequent additions to the well-field shall be documented in the monthly reports pursuant to Condition No. 8. In installing any additional wells, Respondent shall ensure it complies with all conditions in Respondent's currently operative landfill gas collection system permit. In installing any additional wells pursuant to this Condition, Respondent shall additionally take the following measures:
  - a. By January 31, 2024, Respondent shall provide to the South Coast AQMD [attn: 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)] the design and installation schedule for a minimum of an additional seventy (70) wells and their associated piping The proposed well locations and

connecting piping shall be identified on a drawing which shows the entire gas collection system and shall be described in writing. Estimated gas collection volume, well depths, pipe lengths, diameters and layouts shall be supplied to the South Coast AQMD in this advance notification. Updates to the design and schedule shall be provided in the monthly report pursuant to Condition No. 8;

- b. Within 14 days of completion of the installation of the wells identified in the plan submitted under Condition 15(a), if Respondent decides that more wells are imminently necessary, Respondent shall submit to South Coast AQMD [attn: 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)] the design and installation schedule of the additional wells and their associated piping that Respondent will plan to install. The information required by Condition 15(a) shall be included in the submission. Updates to the design and schedule shall be provided in the monthly report pursuant to Condition No. 8;
- c. While installing wells pursuant to Conditions 15(a) and 15(b), Respondent shall notify the South Coast AQMD [attn: 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)] in writing, by Friday of each week, which wells are scheduled to be installed the following week;
- d. Following installation of all wells pursuant to Conditions 15(a) and 15(b), Respondent shall notify the South Coast AQMD in writing [attn: 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 one (1) week

in advance when an additional well or set of wells and their associated piping will be installed. The information required by Condition 15(a) shall be included in the notification. Updates to the design and schedule shall be provided in the monthly report pursuant to Condition No. 8(m).

- e. During any well drilling a landfill gas control box shall be used to prevent the emissions of landfill gas into the atmosphere, and this control box shall be vented to an approved emissions control system;
- f. Each well shall be completed and capped the same day its construction commences, unless the well hole is completely sealed and the well casing is connected to the gas collection header to prevent any landfill gas from escaping into the atmosphere;
- g. Each horizontal gas collection well shall be connected to an operating landfill gas header or the ends of the well shall be sealed with blind flanges, glued or fused caps, or other types of seals approved by the South Coast AQMD as soon as the well is installed;
- All openings and connections of the landfill gas collection system shall be properly covered and sealed to prevent leaks in accordance with Respondent's Title V Permit and in accordance with all applicable rules and regulations;
- i. Respondent shall install additional stainless steel, carbon steel, or chlorinated polyvinyl chloride (CPVC) wells in the Reaction Area per recommendation of the Reaction Committee. Stainless steel or carbon steel shall be installed for any well which has gas temperatures exceeding 170 degrees Fahrenheit;
- j. Following the installation of additional wells per Conditions 15(a) and 15(b), Respondent shall replace any wells in the Reaction Area which are damaged, blocked, pinched, or which have gas temperatures exceeding 145 degrees Fahrenheit with CVPC wells, carbon steel, and/or stainless

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steel wells, or add new wells that replace the landfill gas extraction capacity. Within 7 days of discovery of any such well, Respondent shall notify South Coast AQMD in writing [attn: 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)] of a proposed installation schedule. Installation shall take place within 7 days of the notification, whenever feasible, but the schedule shall take into account availability of drilling equipment, replacement materials, and weather and safety conditions. Respondent shall notify South Coast AQMD in writing of any delays preventing installation within 7 days of the prior notification, with evidence substantiating the delay, and additionally shall provide an updated installation schedule;

- k. Respondent shall, once additional/adequate gas extraction capacity is installed, operate gas extraction wells with less than 3 percent oxygen where feasible, and follow landfill best management practices to keep the oxygen below 5 percent in interior wells;
- Respondent shall install well boots seals on all wells in the Reaction
   Area in accordance with the installation schedule for the geosynthetic
   cover that is being installed pursuant to Condition No. 32 and consistent
   with requirements of the Local Enforcement Agency;
- m. Respondent shall submit semi-annual as-built drawings in duplicate to the South Coast AQMD [attn: 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)]. As-built drawings shall depict all wells constructed to date.

- 16. Respondent shall submit, by October 6, 2023, a complete permit modification application for the Landfill Gas Collection System (under Permit G43917, A/N 578102) to increase the number of permitted wells in the well field. The submittal shall be accompanied with a complete Title V Revision application and shall be submitted with an expedited permit processing request and associated required fees, forms, and information.
- 17. Respondent shall expeditiously dewater wells being impacted by liquids, and shall take proactive measures to remove additional liquids in the Reaction Area to limit the reaction severity and spread. This shall be accomplished through the installation of dewatering sumps/pumps at at least 60 percent of the landfill gas vertical extraction wells in the Reaction Area (as defined in Condition 9(a)) that are capable of extracting liquids by March 15, 2024 unless otherwise determined infeasible per Condition No. 17(a). below. Respondent shall provide updates in the monthly reports pursuant to Condition No. 8.
  - In the event Respondent determines that the installation of dewatering sump/pumps at at least 60 percent of the landfill gas vertical extraction wells that are capable of extracting liquids to be infeasible, Respondent shall provide detailed rationale and reasoning in the monthly report submitted pursuant to Condition No. 8 and shall continue with implementation of the dewatering guidelines pursuant to Condition No. 18 to remove liquids to the maximum extent possible.
- 18. Respondent shall, in addition to the installation of dewatering sumps/pumps specified in Condition No. 17 above, within ninety (90) days of the issuance of the Initial Order, provide proposed Reaction Area dewatering guidelines and implementation procedures for the landfill to South Coast AQMD (Baitong Chen, Air Quality Engineer, (bchen@aqmd.gov); Nathaniel Dickel, Senior Air Quality Engineer, (ndickel@aqmd.gov)) that include but are not limited to the following:
  - Proposed methodologies and monitoring procedures that determine the level of a. dewatering within the Reaction Area (as defined in Condition 9(a)) wells impacted

- by liquid. Methods may include the measurement of the gas flow at each landfill gas collection well impacted by liquids;
- b. Use of dewatering pumps or other methods to remove liquids from Reaction Area (as defined in Condition 9(a)) wells impacted by liquids;
- c. An implementation plan for the use of dewatering pumps or other methods to remove liquids from the Reaction Area wells impacted by liquids. The plan shall include a list of wells in the Reaction Area and depth where liquids are expected to impact landfill gas collection efficacy or be a concern, the proposed action to remove the liquids, and the schedule for liquid removal. The implementation plan shall also include pro-active measures, such as additional dewatering pumps, to be installed at landfill gas collection wells where liquid impaction issues have not yet occurred, but may be expected to occur.
- d. Upgrades to the site leachate collection system as needed, including through the addition of increased air compressor and/or drain line infrastructure;
- e. Protocols for the pumping and monitoring of dewatering pumps and other such methods to remove water from Reaction Area (as defined in Condition 9(a)) wells impacted by liquids;
- f. Well field liquid sounding in the Reaction Area (as defined in Condition 9(a)), and a proposed schedule for conducting liquid sounding on a consistent basis;
- g. A timeline for appropriate reporting on impacted wells;
- h. The feasibility of integrity testing of all vertical gas wells in the Reaction Area (as defined in Condition 9(a)) and a timeline and protocol for addressing any wells that the integrity testing demonstrates are damaged or are exhibiting temperatures of at least 170 degrees Fahrenheit; and
- i. A timeline for implementation of appropriate dewatering procedures upon discovery of wells impacted by liquids.

The proposed Reaction Area dewatering guidelines and implementation procedures shall be implemented within seven (7) days of South Coast AQMD approval.

- 19. Respondent shall submit, by October 6, 2023, a complete permit modification application to the Landfill Gas Condensate and Leachate Collection/Storage System (under Permit G66132, A/N 613131) to increase the landfill's liquid storage capacity. The submittal shall be accompanied with a complete Title V Revision application and shall be submitted with an expedited permit processing request and associated required fees, forms, and information.
- 20. Respondent shall increase its landfill gas control capacity. Respondent has submitted a permit application for a new 6,000 scfm ultra-low emissions landfill gas flare (Flare No. 3), which is currently in a public comment period. Once the flare is fully permitted and fully operational equipment is received, Respondent shall have forty-five (45) days to finish installation and begin operating the new landfill gas flare unless the circumstances outlined in Condition No. 20(a) apply. Respondent shall notify the South Coast AQMD that the new landfill gas flare is operational within 48 hours of beginning operation (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)).
  - a. In the event Respondent is unable to meet these deadlines due to inaccessibility or dangerous conditions for a technician, Respondent shall document the date and the conditions that do not allow the installation of the new flare. Respondent shall submit this documentation to the South Coast AQMD and provide the South Coast AQMD with an updated date of completion for the required work.
- 21. Respondent shall submit, by October 31, 2023, a complete permit application for the new construction of a Landfill Gas Flare (Flare No. 4) to increase the landfill gas control capacity. The submittal shall be accompanied with a complete Title V Revision application and shall be submitted with an expedited permit processing request and associated required fees, forms, and information.
- 22. Respondent shall continue to use one or multiple portable thermal oxidizer(s)/flare(s) that operate under a permit to operate or temporary permit to operate for additional landfill gas control capacity until the Reaction Committee concludes that such portable thermal

oxidizer(s)/flare(s) are no longer needed. Respondent shall notify the South Coast AQMD as to the Reaction Committee's recommendation within 48 hours of when the Reaction Committee's recommendation was determined (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)).

- 23. Respondent shall continue to use both 4,000 scfm flares (under Permit No. G73696, A/N 645450) when the Reaction Committee determines that such use is necessary due to insufficient flaring capacity or other such necessity-based situations, until the second new 6,000 scfm ultra-low emissions flare (Flare No. 4) referenced in Condition No. 21 is permitted and operational.
- 24. Respondent shall operate and maintain the landfill so as to prevent standing leachate and the pooling or ponding of leachate exposed to atmosphere throughout the facility. If pooling or ponding of liquid/leachate is occurring, safety permitting, the liquid/leachate shall be immediately collected and contained in a sealed tanker truck or leachate tank that minimizes emissions, or repairs promptly performed to redirect leachate into the leachate collection system.
- 25. Respondent shall, when encountering landfill leachate geysers or other discharges of pressurized leachate as a result of drilling/maintenance/other operations, perform actions to mitigate odors and the dispersion and exposure of leachate into the atmosphere, to the maximum extent possible. Upon the equalization of pressure or diminished flow/end of the landfill leachate geysers or other discharges of pressurized leachate, Respondent shall remove soil saturated with leachate or add sufficient dry soil cover to the soil saturated with the leachate, to mitigate the potential for odors from the saturated soil.
- 26. Respondent shall investigate and report on the feasibility of temporary containment measures for the purposes of controlling leachate and possible discharges of pressurized leachate when drilling additional holes for wells, liquid pumps, temperature devices, or other purposes. This Discharge of Pressurized Leachate Containment Feasibility Study shall include an analysis on the feasibility of a temporary tenting, containment

vessel(s)/dome(s), other enclosure(s), or partial enclosure system designed to collect and contain the leachate flow while limiting the escape of odors produced from drilling/discharges of pressurized leachate, to allow for additional well drilling in the Reaction Area. By no later than March 12, 2024, Respondent shall submit 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)], a report on the findings of this feasibility study.

- 27. Respondent shall conduct the following actions and report them 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)] in each monthly report submitted pursuant to Condition No. 8 beginning with the report due on February 19, 2024:
  - a. Measure and record the leachate temperature within the four (4) 6-inch inch leachate pipes feeding into the onsite frac tanks, and at the piping leading into the tanks at the bottom of the hill;
    - Respondent shall have dedicated staff or a contractor conduct and document inspections twice each calendar day, once in the morning, completing the inspection prior to 10 am, and once in the afternoon, starting the inspection at 1 pm at the earliest. The inspections shall begin with the surface of the Western and Northern slopes of the Reaction Area for liquid/leachate seepage and pooling and shall additionally consist of inspecting the facility's stormwater channel(s), and the facility's stormwater basin(s). Respondent shall maintain records from each inspection that include the details of any leachate seepage and pooling, including location(s) (identified on graphic map(s) of the landfill), time discovered, estimated duration of presence of leachate at such locations, the characteristics of the leachate (estimated quantity, extent of area impacted, odor type and intensity), the leachate saturation level of

surrounding soils (standing free liquid, saturated, semi-dry, dry), and additional containment systems or measures deployed to route, collect, and contain the exposed leachate and prevent further leachate exposure;

- i. In the event that two weeks of twice daily inspections show no exposed liquid/leachate seepage or pooling, Respondent may reduce the inspection frequency to once daily. If after another two weeks of daily inspections, no exposed liquid/leachate seepage or pooling is observed, Respondent may reduce the inspection frequency to once every other day during the operating week (i.e., three times each operating week). If at any point inspections show exposed liquid/leachate seepage or pooling, inspection frequency shall return to twice daily inspections.
- On a weekly basis, compile and report the details of the inspection logs from that calendar week required under Condition 27(b). Respondent shall additionally report on any ongoing leachate seepage and pooling at the landfill, found to have occurred at a location more than once within the calendar week, including location(s) (identified on graphic map(s) of the landfill), estimated duration of presence of leachate at such locations, characteristics of leachate (estimated quantity, extent of area impacted, odor type and intensity), leachate saturation of surrounding soils (standing free liquid, saturated, semi-dry, dry), and containment systems or measures deployed to route, collect, and contain the exposed leachate and prevent further leachate exposure. By no later than January 23, 2024, Respondent shall submit 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)], the first weekly report, and shall submit an additional weekly report every 7 calendar days thereafter;

- d. Measure and record quantities of leachate sent off-site for disposal/treatment during the previous week for so long as all leachate is transported offsite for disposal. Records shall include the associated company name and physical address of the off-site disposal/treatment facility(ies) that receive leachate generated by the landfill. If Respondent begins onsite treatment, it shall also record on a weekly basis quantities of leachate collected and leachate treated onsite. Respondent shall report this information in the monthly reports pursuant to Condition 8(c). Respondent shall submit copies of the manifests to South Coast AQMD within three weeks of request.
- 28. Respondent shall operate and maintain the landfill gas collection and control system, and condensate/leachate collection system with materials capable of handling gases and/or liquids at the temperatures recorded at landfill gas wells and/or the leachate temperatures measured pursuant to Condition No. 27(a). This shall include, but is not limited to, landfill gas extraction wells, liquid/leachate extraction wells, sumps, pumps, piping, French drain system(s), landfill gas treatment and control equipment, and condensate/leachate storage equipment. Respondent shall utilize casing materials for wells with elevated temperatures as agreed upon with the LEA. Information pertaining to the installed equipment and its specifications, including material/temperature threshold specifications, shall be provided to South Coast AQMD personnel within 48 hours of request. If Respondent is not in possession of this information, it shall be requested from the manufacturer within 24 hours of request by South Coast AQMD personnel and provided to South Coast AQMD personnel within 24 hours of receipt from the manufacturer.
- 29. Respondent shall ensure it has proper capacity to dispose of collected liquids/leachate at an appropriate facility or facilities.

# **Landfill Cover**

- 30. Respondent shall visually inspect the landfill cover around the Reaction Area (as defined in Condition 9(a)) each operating day and shall promptly repair any cover issues identified, which may include adding and spreading soil, wetting, and retracking any damaged area. Respondent shall maintain a log demonstrating that it has addressed any damages to the landfill cover, including the date the damage was identified, the action taken to repair the damage, and the time at which the repair was completed. Results of the daily inspection and the repair log required by this condition shall be included in the monthly reports required pursuant to Condition No. 8.
- Respondent shall install a geosynthetic cover over western portions of Module 2B/3/4 Phase 2, Module 2B/3, and Module 4 to limit the migration of landfill gas from the site. Respondent shall submit the completed design for the cover, which will provide greater definition to the cover location, including associated landfill gas extraction infrastructure to be installed underneath the cover, to the South Coast AQMD by September 12, 2023 (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)). Respondent shall then obtain and install the geosynthetic cover material of at least 30 mil thickness. Respondent shall notify South Coast AQMD by October 31, 2023 (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)) on the progress of procuring and installing the geosynthetic cover. Respondent shall include updates on the procurement and installation of the geosynthetic cover in the monthly reports pursuant to Condition No. 8.

# Ambient Air, Leachate & Emissions Monitoring

32. The Reaction Committee shall review air dispersion modeling, smoke release studies, and computational fluid dynamics ("CFD") modeling that have previously been completed for the landfill to assess odor and emissions transport into the nearby community. The Reaction Committee shall use the previous models updated with current datapoints to undertake a study to determine odor and emission transport of odors from the landfill and to identify

effective techniques that may be used to remedy potential odor impacts on the nearby community. The study shall include an evaluation of the efficacy of odor control measures, including but not limited to perimeter misting equipment, wind barriers, wind cutter fans, and odor dispersion/misting fans, for purposes of minimizing odors in the surrounding community. The study shall be based on both the landfill's current and projected closure in 2047, topography and configuration. The study shall include, but not be limited to, identifying transport trajectories and quantifying odor gas concentrations within the surrounding community. Upon completion of the study, a written report documenting the study and the findings, shall be submitted to South Coast AQMD by December 1, 2023. [Baitong Chen, Air Quality Engineer, (bchen@aqmd.gov); Nathaniel Dickel, Senior Air Quality Engineer, (ndickel@aqmd.gov); Christina Ojeda, Air Quality Inspector, (cojeda@aqmd.gov)].

- a. The report shall include a recommendation on whether additional modeling is recommended to fully address the current odor circumstances at the landfill and potential odor impacts on the nearby community.
- b. If such additional modeling is recommended by the Reaction Committee, the Reaction Committee shall, within 45 days of providing the report and recommendation, provide a proposal to the South Coast AQMD that shall, at a minimum, include the following:
  - The identification and qualifications of the primary personnel and/or firms proposed to conduct the study, as well as the specific techniques and location(s) where the study will be conducted;
  - ii. A timeline for completion of the study and submittal of the final written reports to South Coast AQMD no later than 150 days after South Coast AQMD approval of the study proposal.
- 33. Respondent shall follow the direction of DPH to expand and enhance its current ambient air monitoring program to include DMS and other constituents of landfill gas, sampling at residential locals where recent odor complaints have been reported and at on-site locations

where odors are most pronounced, and to conduct a flux chamber study (the "initial" flux chamber study discussed in Condition No. 12(d)). Any reports submitted to DPH related to these studies shall also be submitted to the 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)).

- 34. By January 19, 2024, Respondent shall provide South Coast AQMD with access to all real-time continuous monitoring data for PM2.5, PM10, and H2S recorded at all monitoring stations (MS-01 through MS-12, and any subsequent additional monitoring stations). Respondent shall by January 19, 2024 or within 3 calendar days after enhanced monitors are brought online, provide South Coast AQMD with access to all real-time continuous monitoring data for total reduced sulfur (TRS) and toxic air contaminants (TAC) recorded by the enhanced monitors (MS-04, MS-12, and any additional enhanced monitors thereafter, including additional monitors as required by Condition No. 36.).
  - a. Within 30 days of this issuance of this Order, Respondent shall ensure that live, real-time H2S concentration data from all monitors within the Val Verde and surrounding community are posted to and accessible at the webpage created pursuant to Condition 39 for public access, displayed in a format which is simple to review and understand. The display shall allow the public to determine the real-time H2S concentration, and the geographic location where the concentration is monitored. The display shall additionally reference and display the acute 1-hour Reference Exposure Level (REL) for H2S established by California Office of Environmental Health Hazard Assessment (OEHHA), which is the same as the state-level standard for this compound (30 ppb).
    - Real-time data shall include, but not be limited to, chronological one-hour average H2S concentrations as time series at each monitoring location. Wind speed and direction shall also be included, if currently monitored by Respondent.
    - The website shall include a map which clearly marks the location of each air monitoring station.

- b. Within 30 days of this issuance of this Order, weekly data (from Saturday at 12:00 am to Friday at 11:59 pm) collected by these monitors shall be made available on the webpage created pursuant to Condition 39, in a manner which allows for user defined data download, no later than the following Monday at 5:30 pm. Data from these monitors shall be kept on file and made available to South Coast AQMD personnel upon request.
  - i. In the event of unexpected downtime of a monitor, Respondent shall document those dates and/or times during which the monitors did not collect data. This documentation shall be kept on file and posted publicly to the website created pursuant to Condition No. 34(a).
- 35. Respondent shall, by January 19, 2024, provide all standard operating procedures (SOPs) and any other Quality Control and Quality Assurance (QA/QC) documents describing the operation and maintenance of all instruments used at the air monitoring stations and/or enhanced monitoring stations specified in Condition No. 34. These QA/QC documents shall include detailed information on the calibration, and maintenance of the monitoring equipment and associated instrumentation, and procedures used for data handling, validation, and analysis. They shall additionally include the frequency/schedule of these actions. Respondent shall provide these QA/QC documents to South Coast AQMD [Baitong Chen, Air Quality Engineer, (bchen@aqmd.gov); Nathaniel Dickel, Senior Air Quality Engineer, (ndickel@aqmd.gov); Christina Ojeda, Air Quality Inspector, Payam Pakbin, Atmospheric Measurements Manager, ppakbin@aqmd.gov)]. Respondent shall provide updates to these QA/QC documents (if any) and a log for calibration, and maintenance activities performed on the monitors in the monthly reports pursuant to Condition No. 8.
  - a. Respondent shall provide South Coast AQMD with the same access that Respondent has to on-site and off-site monitoring equipment. With respect to on-site monitoring equipment, Respondent may require all visitors, including South Coast AQMD staff, to don appropriate personal protective equipment. Upon request by South Coast

AQMD, Respondent shall, within 24 hours, provide a list of all personal protective equipment that Respondent deems appropriate for accessing the monitoring equipment. Respondent shall not prohibit South Coast AQMD staff from access to Respondent's facility, including the monitoring equipment, if South Coast AQMD staff don all personal protective equipment included on a list issued by Respondent pursuant to this condition. With respect to off-site monitoring equipment, South Coast AQMD shall arrange permission from third-party property owners for access, if necessary, and Respondent shall provide access to equipment and accompany South Coast AQMD personnel.

Respondent shall, within 60 days of the issuance of this Order, install and maintain instrumentation within the nearby residential community, at sites MS-10 and MS-12, as defined in Respondent's existing Community Air Monitoring Program. These instruments shall be capable of measuring hourly concentrations of benzene, toluene, ethylbenzene, xylenes, and other relevant volatile organic compounds (VOC) with site surface emissions greater than 1 ton/year, as indicated in Table 5.5 of the Chiquita Canyon Landfill Assessment of Air Emissions from Landfill Surfaces Report dated October 2023. Respondent shall develop a monitoring plan that utilizes reliable and field-proven instrumentation, such as a micro gas chromatograph (MicroGC) with pre-concentration, and seek approval from South Coast AQMD. If measurement of any target compounds is not able to be practically achieved, Respondent shall inform and seek approval from South Coast AQMD.

a. Upon installation, data from these instruments shall be made available to the public via the publicly accessible webpage detailed in Condition No.
34. The display shall additionally reference and display the acute 1-hour Reference Exposure Levels (RELs) for any compounds with established acute exposure limits by California Office of Environmental Health Hazard Assessment (OEHHA).

- 37. Respondent shall, by March 5, 2024, take at least ten liquid samples from wells with pumps located in the Reaction Area, including wells with the highest average temperatures to the extent feasible. Respondent shall submit the liquid samples to a laboratory for analysis. Sampling and analysis shall be performed per U.S. EPA Method 624.1. Respondent shall, within 1 week of receipt from the contract laboratory, submit the results 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)). With the results, Respondent shall also submit laboratory analysis from samples taken on October 20, 2023 from leachate seeps on the western slope of the Reaction Area.
- 38. Respondent shall take at least one representative monthly sample of liquids from the Reaction Area of the Landfill and at least one representative monthly sample of leachate from the bottom tanks where liquids/leachate from the entire Landfill collect and analyze them per U.S. EPA Method 624.1 for the presence of volatile organic compounds (VOCs) and toxic air contaminants (TACs). In the event that Respondent demonstrates, to the satisfaction of South Coast AQMD, that generated liquid/leachate is sufficiently collected with no remaining seepage or potential for discharges of pressurized leachate, then the leachate sampling and analysis shall be reduced to a quarterly schedule. If further leachate seepage or discharges of pressurized leachate are found to occur, resulting in the exposure of the liquid/leachate to atmosphere, then the sampling and analysis shall return to a monthly schedule. Respondent shall, within 1 week of receipt from the contract laboratory. post the analytical results on Respondent's website, and provide to South Coast AQMD along with a detailed description and depiction of the sampling locations (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)).

# **Community Outreach**

- 39. Respondent shall continue to maintain and update regularly (on a weekly basis) a dedicated page of its website with a highly visible link on its homepage (the "odor mitigation section") for presenting information discussing odor mitigation at CCL. Such webpage shall include all information in English and Spanish within 30 days of the issuance of this Order and meet the following requirements:
  - a. The odor mitigation webpage shall be accessible via a direct hyperlink included on the homepage of CCL's website (<a href="https://chiquitacanyon.com">https://chiquitacanyon.com</a>), via a clickable link with text stating "Odor Mitigation;"
  - b. The odor mitigation webpage shall display prominently at the top of the page a notification that complaints of any odors believed to be caused by CCL can be made to CCL (24-Hour Hotline) at (661) 253-5155;
  - c. The odor mitigation webpage shall display prominently at the top of the page a notification that complaints may also be submitted to the South Coast Air Quality Management District via telephone at 1 (800) CUT-SMOG or 1 (800) 288-7664 or online on South Coast AQMD's website (which shall hyperlink to the following: <a href="http://www3.aqmd.gov/webappl/complaintsystemonline/NewComplaint.aspx">http://www3.aqmd.gov/webappl/complaintsystemonline/NewComplaint.aspx</a>);
  - d. The odor mitigation webpage shall include a "Recent Updates" section which shall provide a narrative description of Respondent's understanding of the reaction and DMS;
  - e. The odor mitigation webpage shall include an "Odor Mitigation Efforts" section which shall describe the efforts Respondent is taking to mitigate potential odors;
  - f. The odor mitigation webpage shall include an "Odor and Maintenance Logs" section which shall include via hyperlink any logs created pursuant to this Order, preceded by a brief narrative description;
  - g. The odor mitigation webpage shall include a "Reports, Permits, and Other Documents" section which shall include via hyperlink, preceded by a brief narrative description:
    - i. This Order;

- Safety Data Sheets for odor neutralizer used at the facility and compounds ii. used in the Semi-Permanent Vapor Odor Control system referenced in Condition No. 43;
- A copy of Respondent's current Conditional Use Permit (No. 2004-00052iii. (5));
- iv. Any reports relating to odor or odor mitigation required by Respondent's Conditional Use Permit (No. 2004-00052-(5)) to be submitted to any government agency, including any responses or discussion of remedial actions to odor violations or complaints required by any government agency; and
- All reports created by the Reaction Committee pursuant to this Order. v.
- vi. Any other reports or correspondence requested by the County of Los Angeles agencies related to the reaction, odor, and Respondent's mitigation efforts.
- h. The odor mitigation webpage shall include an "Air Monitoring and Health Impacts Section" which shall include a brief narrative describing the current status of air quality monitoring required under Condition 68 of Respondent's Conditional Use Permit (No. 2004-00052-(5)). The "Air Monitoring and Health Impacts Section" shall also include, via hyperlink, preceded by a brief narrative description:
  - Any consultant reports submitted to the Community Advisory Committee ("CAC"), TAC, or any government agency under Condition 68 of Respondent's Conditional Use Permit (No. 2004-00052-(5)).
  - ii. Any quarterly or annual reports submitted to the Los Angeles County Department of Public Health or South Coast AQMD under Condition 68 of Respondent's Conditional Use Permit (No. 2004-00052-(5)).
- i. The odor mitigation webpage shall include an "Upcoming Public Meetings" Section, which shall display the title/subject, date, time, location and/or virtual access information (including videoconference link or teleconference number as applicable), and a note of whether public comment will be received for the following meetings:

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- Any noticed hearing of the South Coast AQMD Hearing Board in Case No. 6177-4;
- ii. Any meeting of the CAC where odor mitigation and/or violations are included as an agenda item or anticipated to be discussed;
- iii. Any meeting of the TAC where odor mitigation and/or violations are included as an agenda item or anticipated to be discussed; and
- iv. Any other meeting open to the public at which CCL is a scheduled host and/or participant where odor mitigation and/or violation are included as an agenda item or anticipated to be discussed.
- 40. Respondent shall host a public one-hour community meeting once each calendar month following a month in which Respondent receives three or more Rule 402 NOVs from the South Coast AQMD. If Respondent does not receive three or more Rule 402 NOVs from the South Coast AQMD in a calendar month, Respondent does not need to host a community meeting during the following month. During each meeting, Respondent shall provide updates with regards to implementation of this Order and make time available for public comment on matters related to CCL. The meeting date and time and format (inperson or virtual) shall be announced via Respondent's website and shall also be sent via email to everyone who has signed up for email notifications on Respondent's website. The announcement shall include a link and dial-in information to the virtual platform used to conduct the meeting, or if the meeting is in-person, the location of the meeting. All meetings held in person shall adhere to all applicable public health guidelines and shall take place within the Val Verde community. Any presentation, meeting materials, or other media created or shared by Respondent at such community meeting shall be posted to Respondent's Odor Mitigation webpage via hyperlink, including a brief narrative description of the materials.

### **Rule 1150 Landfill Excavation**

41. Respondent shall submit, by January 30, 2024, a complete plan application for a Rule
1150 Landfill Excavation Plan. The submittal shall be accompanied with a complete Title

Chiquita Canyon, LLC [Facility ID No. 119219] - [Proposed] Findings and Decision

- o. Description of disposal of the material (re-burial on-site or sent off site for disposal, if off-site provide name of landfill where material will be disposed).
- p. Maximum surface area of excavation workface.
- q. Maximum surface area of refuse or contaminated material to be exposed to atmosphere at any one time.
- r. Fees in the amount \$1,090.43 (for Title V facilities, fee schedule FY 23-24).
- s. A Title V Permit Revision application shall be submitted with associated application fees in the amount of \$1,820.84 (fee schedule FY 23-24) and required forms (Form 400-A, Form 500-A2, Form 500-C1).
- t. A signed Form 400-XPP and additional 50% more fees from the plan fees listed above (\$545.22).
- 42. Respondent shall comply with the following requirements in the interim period, starting upon issuance of this Order and until the final approval of the Rule 1150 landfill excavation plan under the application specified in Condition No. 41 above, for all excavation, as defined in Rule 1150(a)(5), unless excavation is occurring pursuant to one or more exemption as listed in South Coast AQMD Rule 1150(c):
  - a. The South Coast AQMD shall be notified at least two (2) days prior to each excavation commencement and within five (5) days after its completion. The notification shall be made by email [Christina Ojeda, Air Quality Inspector, (cojeda@aqmd.gov); Gerardo Vergara, Air Quality Inspector, (gvergara@aqmd.gov); and Rule1150notifications@aqmd.gov]. The subject line of the email shall contain "Rule 1150 Notification." The body of the email shall contain the following information:
    - i. Company Name and Company ID
    - ii. Site Address
    - iii. Notification Type (2 days prior or 5 days after)
    - iv. Estimated Excavation Start Date and Completion Date

- v. A Map of the Facility with Excavation Location Indicated
- b. Excavation shall not be conducted between the hours of 6:00 p.m. and 6:00 a.m. or on weekends and legal holidays unless otherwise approved in writing by the South Coast AQMD.
- c. Excavation shall not be conducted on days when South Coast AQMD forecasts first, second, or third stage episodes for area number 13 or when South Coast AQMD requires companies in area number 13 to implement their first, second or third stage episode plans. Episode forecasts for the following day can be obtained by calling (800) 288-7664.
- d. During excavation, continuous monitoring and recording of the wind speed and directions shall be conducted at an appropriate site or, through the meteorological station if present at the site.
- e. Excavation shall not be conducted when the wind speed is greater than 15 mph (averaged over 15 minutes) or the wind speed instantaneously exceeds 25 mph.
- f. During excavation, all working excavation areas, excavated material and unpaved roadways shall be watered down until the surface is moist and then maintained in a moist condition to minimize dust and emissions without creating a safety hazard condition.
- g. VOC contaminated soil (as defined by Rule 1166) shall not be spread onsite or offsite, nor stockpiled, if it results in uncontrolled evaporation of VOC to the atmosphere. VOC contaminated soil shall not be used for landfill cover.
- h. During excavation, monitoring for Total Organic Compounds as methane using an Organic Vapor Analyzer (OVA) or other monitor approved by the South Coast AQMD shall be conducted continuously at the working face of the excavation and at the downwind property line or other approved locations. The maximum sustained readings (greater than 15 seconds) shall be recorded every 15 minutes. The OVA or other approved monitor shall be calibrated each day in accordance with manufacturers' specifications.

- i. If the OVA or other approved organic monitor shows a sustained reading (greater than 15 seconds) of 2,000 ppmv Total Organic Compounds as methane or greater at the working face of the excavation, the excavation shall cease and the area generating the emissions shall immediately be completely covered with a minimum of 6 inches of clean dirt, plastic sheet, or other South Coast AQMD approved cover. Excavation shall not resume until the readings return to the background level.
- j. If the OVA or other approved organic monitor shows a sustained reading (greater than 15 seconds) of 2,000 ppmv Total Organic Compounds as methane or greater downwind from the site at the property line (or other approved locations), the excavation shall cease and the area generating the emissions shall immediately be completely covered with a minimum of 6 inches of clean dirt, plastic sheet, or other South Coast AQMD approved cover. Excavation shall not resume until the readings return to the background level.
- k. Excavated landfill material and refuse shall be immediately relocated for burial onsite or immediately deposited into trucks/trailers for off-site transport and completely covered with an impermeable cover, with such covers tied down, except for during active loading/unloading of refuse. All seams shall be sealed to prevent any materials from escaping during transport.
- When refuse loading is completed and during transport, no material shall extend
  above the sides or rear of the truck or trailer which will haul the excavated material.

  Excavated material shall be completely covered with an impermeable cover, with
  the cover tied down, and all seams shall be sealed to prevent any materials from
  escaping during transport.
- m. The exterior of haul trucks or trailers including the tires shall be cleaned off prior to leaving the excavation site.
- n. Landfill materials and refuse which have been exposed to the atmosphere as a result of the excavation, which have not been excavated and relocated for burial or transported off site, shall be immediately covered (with a minimum of 6 inches of

clean soil, , with secured plastic sheeting that is at least 10 mil, or other South Coast AQMD approved cover) whenever excavation is not actively in progress, and at the end of each working day so that no portion of landfill material and refuse is exposed to the atmosphere. Foam by itself shall not be used as a night cover if it is raining or rain is predicted by the National Weather Service prior to the next scheduled day of excavation.

- o. Daily inspections shall be conducted of any covered excavation area (per Conditions 41(i), 41(j), and 41(n) above) to ensure the integrity of the cover(s) is maintained and secured so that no portion of the soil is exposed to atmosphere. If the cover material is not completely covering the landfill materials and refuse generating emissions, or if the integrity of the cover has been compromised, immediate corrective action shall be taken to add and secure a new cover, or additional cover, on the area requiring corrective action. An inspection log shall be maintained to record the time of the inspections and any corrective action performed.
- p. All materials that are listed as hazardous by a federal or state agency shall be considered "hazardous materials" for the purpose of this Order.
- i. All excavated hazardous material shall be transported in such a manner as to prevent any emissions of hazardous materials.
- ii. All hazardous materials shall be transported in containers clearly marked as to the type of material contained and what procedures should be followed in case of accidental spills.
- iii. Excavated liquid hazardous materials with the potential to cause air emissions shall be encapsulated or enclosed in containers with sealed lids before loading into the transport vehicles.
- q. Excavation, handling and stockpiling activities shall comply with the applicable requirements of Rule 403.

- r. All records required to demonstrate compliance with Condition No. 42 shall be kept and maintained for at least 5 years.
- s. Mitigation measures, other than those listed in these conditions, which are deemed appropriate by South Coast AQMD personnel as necessary to protect the comfort, repose, health, and safety of the public, shall be implemented upon request.

# **Other Conditions**

- 43. To ensure that fresh trash odors remain controlled, Respondent shall maintain the following fresh trash-related odor mitigation measures recommended by its landfill operations expert from the Stipulated Order for Abatement in Case No. 6177-1 during Unfavorable Wind Conditions, as defined in the Stipulated Order for Abatement in Case No. 6177-1. Respondent shall maintain the following odor mitigation measures:
  - Use orchard fans, and tow-and-blow fans as needed, placed and spaced around the working face in accordance with the recommendations of Chiquita's landfill operations expert;
  - Use equipment equipped with odor neutralizer misting systems in various portions
    of CCL to neutralize any fresh trash odors. This equipment shall include, but not be
    limited to, fans and arm tower misters;
  - c. Identify and appropriately handle odorous loads at the scale and working face as new waste loads enter CCL;
  - d. Haul odorous loads with proper sequencing and cover; and
  - e. Regularly train staff on all aspects of landfill operations, employee safety, and odor control.
- 44. Respondent shall obtain, install, and maintain an on-site landfill meteorological station to measure wind speed and direction by October 31, 2023. The meteorological station shall be installed at a location appropriate for determining wind speed and direction on the top deck of the landfill in the Reaction Area (as defined in Condition 9(a)) on a 1-hour average basis, with measurements recorded every 5 minutes. The station shall record and preserve all available readings for three years and the readings shall be made available to

the South Coast AQMD upon request.

- 45. Respondent shall install, maintain in good working order, and operate 1,000 feet or more of Semi-Permanent Vapor Odor Control in the Reaction Area (as defined in Condition 9(a)) within 14 days of the approval of this Order. Respondent shall operate the Semi-Permanent Vapor Odor Control system immediately and continuously.
- 46. Respondent shall operate and maintain in good working order a landfill perimeter odor control misting system on permanent fencing on the west and northwest of the property.
- 47. The landfill perimeter odor control misting system shall be operated immediately and continuously upon receiving data from the meteorological station, referenced in Condition No. 43 above, that the 1-hour averaged wind direction is blowing in West, Northwest, North, or Northeast directions (270 degrees to 45 degrees). The misting system shall continue to operate until the 1-hour averaged wind direction data demonstrates the wind is no longer blowing in the specified directions. The system shall be operated in such a manner and with sufficient odor neutralizers to mitigate, to the extent possible, transient odors from the landfill into surrounding communities, as determined by the Reaction Committee.
- 48. notify South **AQMD** Kathryn Respondent shall the Coast (attn: Roberts. kroberts@aqmd.gov; Mary Reichert, mreichert@aqmd.gov; Christina Ojeda, cojeda@aqmd.gov) of any substantial operational changes designed to or anticipated to reduce odors, such as an operational change not contemplated by this Order, within seven days of implementing such changes.
- 49. Equipment and operations at the Facility are subject to the jurisdiction and regulatory requirements of multiple agencies, including but not limited to the District, CalRecycle, Los Angeles County Public Works, Los Angeles County Department of Regional Planning, and Los Angeles County Department of Public Health. The conditions in this Order shall not in any way restrict or expand the scope of jurisdiction of any agency. If any agency that shares jurisdiction over the Facility with the South Coast AQMD requires Respondent to take any action that is inconsistent with this Order, Respondent shall immediately contact

the South Coast AQMD by email at [Kathryn Roberts, kroberts@aqmd.gov and Mary Reichert, mreichert@aqmd.gov] and describe the inconsistent provisions, including providing any written directive from any other agency which Respondent considers inconsistent with one or more conditions in this Order. Respondent shall endeavor to resolve the inconsistency with the Executive Officer, while adhering to the Condition(s) in the Order. If the inconsistency is not resolved within 3 working days of the relevant agency, Respondent shall immediately inform the South Coast AQMD and shall petition for a status/modification hearing before the Hearing Board for further proceedings. At such proceeding, only the provision in dispute shall be resolved by the Hearing Board while the other conditions in this Order shall remain in full force and effect.

- a. If Respondent notifies South Coast AQMD per Condition No. 49 above that the inconsistency with one or more Condition and an order of another agency cannot be resolved, compliance with the applicable Condition(s) of this Order shall be waived until further Order of the Hearing Board. Notwithstanding the above, in no instance shall compliance with Condition No. 49 or Condition No. 49(a) be waived.
- 50. Respondent shall provide a workplan which lists the actions that Respondent plans to take in order to address the subsurface reaction and return all aspects of the CCL to good and compliant working order, including liquid/leachate seepage and discharges of pressurized leachate, methane surface exceedances, fugitive emissions of landfill gas, well temperature exceedances, and non-compliant composition of landfill gas. This workplan shall include a timeline of the proposed work, and shall include both short-term and long-term solutions planned to mitigate impacts to the surrounding communities and return the facility into compliance. Respondent shall submit the complete workplan to South Coast AQMD by March 13, 2024 (Baitong Chen, Air Quality Engineer, (bchen@agmd.gov); Nathaniel Dickel, Senior Air Quality Engineer, (ndickel@agmd.gov), and Christina Ojeda, Air Quality Inspector, (cojeda@agmd.gov). Respondent shall provide quarterly updates on the workplan, by the 13<sup>th</sup> day of every third month, starting June 13, 2024,

specifying any updates to the plan or associated work timelines.

- Respondent shall permit South Coast AQMD personnel to conduct all inspections deemed necessary by South Coast AQMD Compliance staff, including, but not limited to, collection of samples. If Respondent denies South Coast AQMD staff access to collect sample(s) of any liquid observed onsite and exposed to ambient air, such liquid shall be deemed to be leachate for the purpose of enforcing this Order, any applicable South Coast AQMD Rule, and/or any permit condition applicable to Respondent. Notwithstanding the preceding, Respondent may require all visitors, including South Coast AQMD staff, to don appropriate personal protective equipment prior to visiting the Reaction Area. Upon request by South Coast AQMD, Respondent shall, within 24 hours, provide a list of all personal protective equipment that Respondent deems appropriate for visiting the Reaction Area. Respondent shall not prohibit South Coast AQMD staff from access to Respondent's facility, including the Reaction Area, if South Coast AQMD staff don all personal protective equipment included on a list issued by Respondent pursuant to this condition.
- 52. Respondent shall reserve 30 minutes biweekly to host a virtual meeting between South Coast AQMD technical staff and Respondent / Respondent's technical consultants to discuss key updates on Respondent's implementation of this Order and any changes to Landfill conditions or operations. Any instance of the biweekly meeting may be cancelled at South Coast AQMD's sole discretion.
- 53. Respondent shall return for a status hearing on <u>April 24 and 25, 2024</u>, or as soon thereafter as the Hearing Board can schedule the status hearing, to report on the status of implementation of this Stipulated Order, and consider modification or dissolution of this Order, as appropriate.
- 54. The Hearing Board may modify this Order for Abatement without the stipulation of the parties upon a showing of good cause therefore, and upon making the findings required by Health and Safety Code Section 42451(a) and District Rule 806(a). Any modification of the Order shall be made only at a public hearing held upon 10 days published notice and

1		appropriate written notice to the Respondent.
2	55.	The Hearing Board shall retain jurisdiction over this matter until <b>September 6, 2024</b> and at
3		that time this Order shall no longer be of any force or effect, unless this Order is amended,
4		modified, or dissolved before then.
5	56.	This Order for Abatement is not intended to be nor does it act as a variance. Respondent is
6		subject to all rules and regulations of the District and to all applicable provisions of
7		California law. Nothing herein shall be deemed or construed to limit the authority of the
8		District to issue Notices of Violation, to seek civil penalties or injunctive relief, or to seek
9		further Orders for Abatement or other administrative or legal relief. The Findings of Fact
0		are based on evidence presented by Petitioner and Respondent as of the date of this Order.
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		-62- Chiquita Canyon, LLC [Facility ID No. 119219] – [Proposed] Findings and Decision