BEFORE THE HEARING BOARD OF THE

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

In The Matter Of SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT, Petitioner, vs. CHIQUITA CANYON, LLC a Delaware Corporation, [Facility ID No. 119219] Respondent.	**Case No. 6177-4** **DECLARATION OF SRIVIDHYA VISWANATHAN, P.E.** Health and Safety Code § 41700, and District Rules 402, 431.1, 3002, 203, 1150 Hearing Date: January 16, 2024 Time: 9:30 am Place: Hearing Board South Coast Air Quality Management District 21865 Copley Drive Diamond Bar, CA 91765

I, Srividhya Viswanathan, declare as follows:

1. I am of sufficient age and am competent to testify in this proceeding. I make this declaration based upon personal knowledge and am competent to testify to the facts set forth herein.

Background and Credentials

2. I am a licensed professional engineer with over 17 years' experience on solid waste management services and infrastructure projects. I work on municipal solid waste ("MSW") landfills like the Chiquita Canyon Landfill (the "Landfill"). My work includes design and installation of landfill gas ("LFG") collection systems, landfill dewatering systems, LFG Blower-Flare Station planning and site civil design, and construction oversight for LFG-related projects. I have designed 5-year operational fill and gas collection and control system ("GCCS") sequence plans, and prepared Joint Technical Document updates for various landfills in California. In the last five years, I have provided over 200 LFG Design, Construction Quality Assurance Support and

Regulatory Support Services, as well as over 50 Landfill Design, Construction Quality Assurance Support and/or Regulatory Support Services.

3. I have worked with SCS Engineers, Inc. ("SCS") for approximately 12 years. I am currently the Vice President and Director of Engineering of SCS's Southwest Region, where I lead solid waste engineering operations in California, Arizona, Nevada, Utah, and New Mexico. I am a licensed professional engineer in California (License No. 80360), Arizona (License No. 59485), and Nevada (License No. 028004).

4. My experience working with landfills and LFG systems has provided me with the skills, knowledge, and judgment to advise on Chiquita's implementation of the September 6, 2023 Stipulated Order for Abatement.

5. I have assisted in the preparation of technical documents and data in support of stipulated abatement orders during regulatory negotiations and litigation procedures.

Experience Working with Chiquita Canyon Landfill

6. SCS works on the permitting, engineering design, construction, as well as operations and maintenance ("O&M") and other improvements related to the Landfill's LFG collection and control system, the LFG wellfield dewatering system, as well as the Landfill's leachate and condensate management and storage system. SCS has performed this work for many years on behalf of Chiquita. I began working with Chiquita in November 2022, primarily advising on the Landfill's LFG well-field and dewatering system, and since then I have continued working on these components at the Landfill.

7. As required by **Condition 12** of the Stipulated Order, Chiquita selected and contracted with six individual consultants to form the DMS Committee, which consists of subject matter experts aiding in the investigation, impact assessment, and remediation of the ongoing landfill reaction and resultant odors. I am one of the members of the DMS Committee.

8. This declaration is made for the January 16, 2024 status and modification hearing on the Stipulated Order for Abatement adopted on September 6, 2023.

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Chiquita's Implementation of the Stipulated Order

9. On September 6, 2023, the South Coast AQMD Hearing Board (the "Hearing Board") adopted the Stipulated Order. I have primarily worked on two aspects of Chiquita's implementation of the Order – liquids management, and expansion of the landfill gas collection system.

Liquids Management

10. Chiquita is expeditiously dewatering wells as required by **Conditions 17 and 17(a)**. On November 3, 2023, the DMS Committee submitted to the South Coast AQMD an assessment of the wells in the Reaction Area, which included the 25 such wells with the worst liquid impaction issues. As of November 1, 2023, pumps were installed in 22 of the wells determined to have the worst liquid impaction issues in the Reaction Area. Under the Stipulated Order, Chiquita was required to have installed pumps in 20 percent of the wells with the worst liquid impact issues. By installing pumps in 22 of 25 of such wells, Chiquita had installed pumps within 88 percent of the wells with the "worst liquid impaction issues," thus exceeding the requirement of the Order.

11. Since November 1, 2023, Chiquita installed additional pumps in wells determined to have the worst liquid impaction issues. Pumps are inspected twice daily for operations. Non-operational pumps are removed from the wells for maintenance, and replacement pumps are installed to maintain dewatering operations.

12. Since September 7, 2023, the Landfill has improved overall liquids recovery. The Landfill continues to expand the dewatering system, including leachate storage tank systems consistent with the increased liquids recovery.

13. In addition to expeditiously dewatering wells, Chiquita prepared proposed dewatering guidelines and implementation procedures as required by **Condition 18**. I participated in the preparation of these guidelines and procedures. SCS, on behalf of Chiquita, submitted the proposed dewatering guidelines and implementation procedures to the South Coast AQMD on December 5, 2023. A true and correct copy of the guidelines is attached as **Exhibit A**.

14. The Stipulated Order requires Chiquita to implement the proposed Reaction Area dewatering guidelines and implementation procedures within seven days of South Coast AQMD

approval. Chiquita is still awaiting approval from the South Coast AQMD; in the meantime, Chiquita is implementing the guidelines and procedures as described in the submittal because they reflect best practices.

15. The guidelines serve to improve Chiquita's ability to extract liquids from the landfill gas collection system, which will improve the landfill gas collection efficiency. In turn, implementation of the guidelines will decrease the liquids in the landfill and remove heat from the reaction, which will assist in slowing and stopping the reaction. This will also reduce the potential for leachate seepage.

16. The proposed dewatering guidelines include procedures for well sounding and installation of additional dewatering pumps. The liquid level of a well is monitored by lowering a measurement device into the well (i.e., a "sounding" event). In addition to routine monitoring, Chiquita conducts liquid level monitoring at any LFG well that is exhibiting symptoms that the well is no longer properly functioning due to liquids blockage. Such symptoms include low LFG flow, decreasing gas quality, or immediate equilibration with the system vacuum. Chiquita reports the discovery of any impacted wells in the monthly report submissions required under Condition 8(i).

17. The guidelines also set forth an implementation plan and timeline for installing dewatering pumps in such wells that are impacted by liquids. The plan lists 72 vertical LFG extraction wells positioned within the Reaction Area at the time of submission of the guidelines. The guidelines describe Chiquita's procedures and schedule for installing dewatering infrastructure that will allow for additional pump installation. Chiquita proposed to install dewatering infrastructure and pumps in any impacted well within two months of discovery. Chiquita is continuously ordering pumps to stock on-site.

18. In addition, the guidelines describe Chiquita's integrity testing of wells. Chiquita evaluates the structural integrity of the well to assess if the well is no longer capable of receiving a dewatering pump, or inserting a measurement device, and if the well is no longer productive for recovering LFG. As stated in the guidelines, damaged wells will be re-drilled or repaired in accordance with the GCCS design plan.

Landfill Gas Collection System

19. To control the reaction, Chiquita has also been expanding its gas well collection system. At the time of the last hearing, Chiquita had installed numerous wells that it was in the process of connecting. As required by **Condition 13**, Chiquita continues to operate the five deep trench collectors and six leachate extraction wells along the Western Slope. Chiquita also connected the previously-installed 18 vertical dual extraction wells to the LFG system by September 15, 2023.

20. Since September, as required by **Condition 15**, Chiquita continues to evaluate and install new vertical dual extraction wells as needed. Dual extraction means the well has the capability for a dewatering pump to be installed, if needed. It is important that all new wells have this capability so that Chiquita can continue to improve dewatering capabilities, as described in the dewatering guidelines.

21. SCS, on behalf of Chiquita, provided an initial notification to South Coast AQMD on October 31, 2023, stating that a total of 49 vertical extraction wells had been installed between July 12, and October 25, 2023, and were operational. A true and correct copy of this notification is attached as **Exhibit B**.

22. Chiquita documents subsequent additions to the well-field in the monthly reports submitted required under Condition 8(m). Since October 31, 2023, 14 additional vertical extraction wells have been installed and are operational, totaling 63 new operational wells at the Landfill, and 44 since the adoption of the Stipulated Order.

23. Beginning in December 2023, Chiquita began another significant gas well expansion. In December 2023, 13 vertical LFG extraction wells were installed and are operational. Plans for the expansion are under development, but Chiquita is anticipating installing a total of at least an additional 70 vertical dual extraction wells. The exact sequence of wells and timing will be impacted by driller and equipment availability, weather, and field conditions.

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Proposed Modifications and Additions to the Stipulated Order

24. I understand that in advance of the January 16, 2024 Hearing the parties have discussed proposed modifications to the Stipulated Order. I have reviewed the version of the proposed conditions that is current as of the date of this Declaration. I believe that the modifications and new conditions described below are all reasonable modifications or additions to the Stipulated Order.

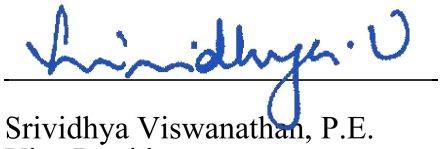
25. The parties propose modifying **Condition 17** to require Chiquita to install dewatering sumps/pumps at 60 percent or more of the landfill gas vertical extraction wells in the Reaction Area that are capable of extracting liquids by March 15, 2024, unless installation is otherwise deemed infeasible. This modification will require Chiquita to continue improving its dewatering capabilities, which is important for both slowing and stopping the reaction, and for reducing the potential for leachate seepage.

26. A newly proposed condition **(**currently numbered **Condition 27(a)**) would require Chiquita to measure and record the leachate temperatures from several areas at the landfill. Chiquita would also be required under newly proposed **Condition 28** to operate and maintain the landfill gas collection 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 leachate temperatures. This is important to ensure the integrity of the landfill gas and leachate collection system when facing with the elevated temperatures of gas and liquid caused by this reaction.

27. The parties also propose adding what is currently numbered **Condition 36,** which would require Chiquita to 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. Chiquita will be required to submit the liquid samples to a laboratory for analysis. The sampling analysis will also be available to South Coast AQMD. This proposed sampling requirement will allow the parties to better understand the constituents of the liquids in the wells.

I declare under penalty of perjury under the laws of the State of California that the foregoing is true and correct to my personal knowledge.

Executed on this 9th day of January, 2024, in San Diego, California.



Srividhya Viswanathan, P.E.
Vice President
SCS Engineers

BEFORE THE HEARING BOARD OF THE

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

In The Matter Of SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT, Petitioner, vs. CHIQUITA CANYON, LLC a Delaware Corporation, [Facility ID No. 119219] Respondent.	**Case No. 6177-4** **EXHIBIT A TO DECLARATION OF SRIVIDHYA VISWANATHAN, P.E.** Health and Safety Code § 41700, and District Rules 402, 431.1, 3002, 203, 1150__ Hearing Date: January 16, 2024 Time: 9:30 am Place: Hearing Board South Coast Air Quality Management District 21865 Copley Drive Diamond Bar, CA 91765

December 5, 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
South Coast Air Quality Management District
21865 East Copley Drive
Diamond Bar, CA 91765-4182

Subject: Landfill Gas Collection System Dewatering Guidelines for Stipulated Order for Abatement (Case No. 6177-4), Chiquita Canyon Landfill (Facility ID 119219), Castaic, California

To Whom It May Concern:

SCS Engineers (SCS), on behalf of Chiquita Canyon, LLC (Chiquita) hereby provides the South Coast Air Quality Management District (SCAQMD) with Chiquita's proposed landfill gas (LFG) collection and control system Reaction Area dewatering guidelines and implementation procedures per the Stipulated Order for Abatement (SOFA) (Case No. 6177-4) Condition No. 18 for the Chiquita Canyon Landfill (CCL or Landfill). The SOFA was approved on September 6, 2023.

BACKGROUND

The Landfill is a landfill/solid waste disposal facility located at 29201 Henry Mayo Dr., Castaic, California, 91384 (SCAQMD Facility No. 119219). In connection with the landfill, Chiquita operates an LFG collection and control system (GCCS). The GCCS includes vertical LFG extraction wells and dedicated dewatering pumps (typically either pneumatic or electric) that can be inserted downhole, into select vertical LFG extraction wells for purposes of extracting liquids that may accumulate in the well. Lowering the liquid levels within individual wells reduces the length of perforated well pipe that is blocked by liquids, and typically expands the zone-of-influence exerted by each well, resulting in improved LFG recovery (increased LFG flowrates).

In 2023, the conditions at CCL indicate that the Landfill is undergoing an elevated temperature landfill (ETLF) event. On September 6, 2023, a hearing was held before the SCAQMD Hearing Board to approve the SOFA, which includes numerous measures to mitigate emissions resulting from the landfill's ETLF conditions. The SOFA was approved on September 6, 2023.

Condition No. 18 of the SOFA requires Chiquita to submit proposed Reaction Area dewatering guidelines and implementation procedures to SCAQMD. Condition No. 18 provides:

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 this 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:

A. *Proposed methodologies and monitoring procedures that determine the level of 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.*

Condition No. 18 additionally provides that the proposed Reaction Area dewatering guidelines and implementation procedures shall be implemented within seven (7) days of SCAQMD approval.

DEWATERING GUIDELINES

<u>Section A –</u> Proposed methodologies and monitoring procedures that determine the level of 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;

The LFG industry generally considers the ideal condition for maximizing LFG collection and extraction to be well conditions unencumbered by accumulated liquids (i.e., when the full length of perforated well pipe is open). However, this idealized condition is rarely achievable. The "level of dewatering" means the degree to which the static liquid level in each well is lowered by dewatering pump operations, which extract liquids at a rate equivalent to the well's liquid recharge rate, or "yield." Methodologies and monitoring procedures that can assess the appropriate level of dewatering include measurement of LFG composition (quality), measurement of LFG recovery quantities (flowrate), measurement of applied vacuum, and measurement of liquid level elevations (depth-to-liquid) within the well casing pipe.

Chiquita utilizes gas quality and flow measurements at individual vertical LFG extraction wells within the Reaction Area and liquid level monitoring to assess the level of dewatering that is being achieved by the pumps installed within select vertical LFG extraction wells positioned within the Reaction Area. These same parameters (composition and flow) are evaluated to decide if the dewatering being

achieved is adequate to accomplish the objective of removal of heat through fluid extraction (both gas and liquids).

Extraction wells with low LFG flow or decreasing LFG quality (increasing oxygen [O2] and decreasing methane [CH4]) may indicate a well is no longer properly functioning due to liquids blocking the perforations of the well casing. Also, LFG wells that have the entire length of perforated pipe blocked by liquids tend to exhibit an applied vacuum (on the well side of valve) that is equivalent to system vacuum (on the lateral side of valve) even when the wellhead valve is slightly opened. During routine LFG monitoring, if wells exhibit low LFG flow (typically less than 5 cubic feet per minute [cfm], decreasing gas quality (typically British thermal unit [BTU] content less than 100 BTU per cubic foot), or immediate equilibration with system vacuum, Chiquita then conducts liquid level monitoring in each well showing these symptoms.

Additionally, Chiquita conducts routine liquid level monitoring at all vertical LFG extraction wells within the Reaction Area, at a minimum, on a quarterly basis. During liquid level monitoring (often referred to as a "sounding" event), a liquid level measurement device that consists of a probe and cable is lowered into the well casing and produces an audible sound when the probe encounters liquids. Alternative instrumentation, such as a tape measure with floatation device, may be utilized in order to reduce potential interference due to foam formation. The measurements on the cable or tape measure indicate the depth to liquids, as measured from the top of the casing, within the landfill Reaction Area, and are used to calculate the depth of liquids and the liquid levels within each well casing.

Section B – Use of dewatering pumps or other methods to remove liquids from Reaction Area (as defined in Condition 9(a)) wells impacted by liquids;

Chiquita is installing a dedicated dewatering pump in any vertical LFG well in the Reaction Area where the well exhibits low LFG flow (typically less than 5 cfm), decreasing gas quality (typically BTU content less than 100 BTU per cubic foot), or immediate equilibration with system vacuum, as well as in wells with blockage of well casing perforations, provided that the well casing pipe has structural integrity as noted in Section H and a pump can be installed safely. The type of pump, depth of installation, and ancillary features to be installed will vary depending on liquid temperature, composition of the liquids (primarily solids content, etc.), presence of fouling substances (sludge, precipitants, crust, black goo, flubber, taffy, etc.), historical pump performance, and maintenance cycles to maximize liquid extraction for each individual well in the Reaction Area.

It is well-documented within the landfill industry that the use of dedicated dewatering pumps to extract liquids from vertical LFG extraction wells is a challenging endeavor that requires continuous maintenance and consideration of worker safety. Pump downtime and servicing needs impose significant demand on resources. The subsurface conditions within an ETLF are a particularly harsh environment, and expectations of liquid quantities removed should be correlated to field conditions that the dewatering system (pumps, pneumatic supply piping, liquid forcemain piping, valves, compressors, electric power equipment, etc.) is being exposed to.

Section 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 shallsalso 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.

Chiquita plans to install pumps in wells in the Reaction Area that are impacted by liquids, which expands on its prior procedure of installing pumps only after liquids impacts to LFG collection. Currently, there are 72 vertical LFG extraction wells positioned within the Reaction Area (listed below) of which 35, currently have dewatering pumps installed to remove liquids from the Reaction Area. Wells currently without pumps do not have a pump because they are either: damaged and unable to accept a pump and currently slated for re-drill, not impacted by any liquids greater than 10' (as measured from the bottom of the open well casing during liquid level monitoring), or scheduled to receive a pump after a pump arrives to CCL and/or leachate forcemain infrastructure is installed to that well. A specific depth in the landfill cannot be used to expect impact to LFG collection efficacy, because the depth of liquids impacts can vary by the elevation of the landfill at that location, the depth of the specific well, the depth of perforations of that well, or the time when that well is drilled. Instead each well is evaluated for possible depth of impaction individually.

Table 1. Vertical Extraction Wells within Reaction Area

CV-74R	CV-1532B	CV-2001	CV-2302	CV-2326	CV-2343
CV-85S	CV-1534	CV-2002	CV-2303	CV-2327	CV-2344
CV-100	CV-1534A	CV-2003	CV-2304	CV-2328	CV-2345
CV-103	CV-1535	CV-2004	CV-2305	CV-2333	CV-2346
CV-108-52	CV-1601D/S	CV-2006	CV-2306	CV-2335	CV-2347
CV-113	CV-1607	CV-2007	CV-2308	CV-2336	CV-2348
CV-114	CV-1610	CV-2201	CV-2310	CV-2337	CV-2349
CV-1420	CV-1901	CV-2202	CV-2311	CV-2338	CV-2350
CV-1421	CV-1902A	CV-2203	CV-2312	CV-2339	CV-2351
CV-1425	CV-1902D/S	CV-2204	CV-2314	CV-2340	CV-2352
CV-1426	CV-1903	CV-2206	CV-2315	CV-2341	CV-2353
CV-1532	CV-1906	CV-2301	CV-2322	CV-2342A	CV-2354

To proactively plan for future dewatering pump installation, Chiquita is installing dewatering infrastructure (pneumatic supply piping and liquid forcemain piping) to existing and new wells—except for those wells that are damaged and unable to accept a pump and currently slated for re-drill, or are not impacted by any liquids greater than 10' (as measured from the bottom of the open well casing during liquid level monitoring)—and any new LFG extraction wells within the Reaction Area, such that a dewatering pump may be installed if liquids are found in a well in the future. Additionally, Chiquita is continually ordering new pumps both to install in existing LFG extraction wells and to stock on-site, if an existing well begins to have liquid impacts or an existing pump needs to be removed from the LFG extraction well for servicing and maintenance.

The schedule for dewatering infrastructure installation is highly dependent on manufacturing, vendors, contractors, each of which may have unexpected circumstances arise. Chiquita will act expeditiously to install dewatering infrastructure. The pumps (both pneumatic and/or electric) are configured to

actuate and commence liquid removal when liquids are present, so the pumping activities are ongoing and continuous when liquids are present, and the pump is operational.

Section D – Upgrades to the site leachate collection system as needed, including through the addition of increased air compressor and/or drain line infrastructure;

The leachate management system at the Facility is comprised of various liquids handling infrastructure and subsystems, including the bottom liner drainage layer, the leachate sump pumps, leachate pump stations and forcemain piping, the leachate storage tanks, tanker truck loadout stations, etc. The dewatering infrastructure that is the focus of these dewatering guidelines also serves the LFG collection system and contributes to the liquids handling efforts at the Facility.

Chiquita has expanded the leachate management system with additional storage tanks and the LFG wellfield dewatering system with liquid conveyance lines and compressed air lines to collect and convey leachate extracted from LFG wells impacted by liquids to the leachate storage tanks. Additionally, as described in Section D, Chiquita plans to continue expanding the LFG wellfield dewatering system so that every vertical LFG extraction well within the Reaction Area is capable of receiving a pump. The leachate forcemain lines will have the ability to convey 500,000 gallons a day, and the leachate storage tanks will have the ability to store 1,000,000 gallons.

Section 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;

Pumps installed in vertical LFG extraction wells at CCL are monitored daily to check that the pumps are properly functioning. If a pump is found to be non-functional, it is diagnosed and, if it cannot be fixed-in-place, it is swapped for a functional pump while the original pump is cleaned/maintained. If a pump is found to be operational at the time of the daily monitoring event, it is noted as a currently operational pump until checked on the following day. Pumps are operated as frequently as possible to maximize the dewatering at CCL, in any vertical LFG extraction wells impacted by liquids. It is worth noting that the dewatering pumps installed in LFG wells are subject to occasional stalling because of the conditions in the well (primarily solids content of the liquids and other fouling mechanisms), and field technicians routinely verify proper operation and utilize various techniques to restart (referred to as "bump") the pump. For pneumatic pumps, this often involves temporarily connecting the air supply line to the exhaust hose in an attempt to dislodge any debris and re-seat the float check valve.

Section 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;

Chiquita proposes to conduct quarterly liquid level sounding on all vertical LFG extraction wells in the Reaction Area, as well as conducting liquid level sounding at any vertical LFG extraction well in the Reaction Area found to have declining gas quality or flow, or immediate equilibration with system vacuum, as detailed in Section A. Wells unsafe for wellhead removal, due to high pressures, free flowing liquids, high temperatures, or any other unsafe condition may not be monitored for liquid levels during the routine monitoring until they are safe to work on. Wells not monitored for liquids levels will be re-checked for high pressures, free flowing liquids, or high temperatures on a monthly basis until safe to conduct liquid level monitoring.

Section G – A timeline for appropriate reporting on impacted wells;

Liquid sounding data will be reported quarterly in conjunction with the regular quarterly monitoring of depths to liquids of all vertical LFG extraction wells in the Reaction Area. Liquid impaction on LFG flow or quality is identified through routine LFG monitoring and is reported in the monthly report submissions required under SOFA Condition No. 8(i).

Section 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;

Vertical LFG extraction wells within the Reaction Area will be checked for well casing integrity on a quarterly basis in conjunction with the proposed quarterly liquid level sounding, provided it is safe to remove the wellhead on the LFG extraction well for the manually performed integrity testing. For purposes of this effort, the structural integrity of the well will be evaluated to assess the extent to which pinching, crimping, shearing or other deformation or deflection of the well riser pipe has occurred to such degree that the well is no longer capable of insertion of a dewatering pump or measurement device, and the well is no longer productive for recovering LFG. Vertical LFG extraction wells in the Reaction Area installed with steel casing will not be monitored for integrity testing, as it is unnecessary. Damage to these LFG extraction wells will be assessed during routine quarterly liquid level monitoring events. Vertical LFG extraction wells discovered to be damaged during the integrity testing will be re-drilled or repaired in accordance with the GCCS design plan.

Section I – A timeline for implementation of appropriate dewatering procedures upon discovery of wells impacted by liquids;

Chiquita proposes to install dewatering infrastructure and pumps in any vertical LFG extraction well discovered to be impacted by liquids within 2 months of the discovery. Specially, if the LFG extraction well has liquids greater than 10' (as measured from the bottom of the open well casing during liquid level monitoring), dewatering infrastructure activities will be initiated. This implementation will commence in conjunction with the reporting of liquid impactions discussed in Section G. As described in Section C, Chiquita is acquiring additional pumps to have on site and expanding piping proactively. If there is no pump on site or available piping, the additional equipment will be ordered within a week, and Chiquita will begin outreach to secure a contractor to install the pump and infrastructure within a week. The installation itself will take place within 2 months.

CLOSING

If you have any questions or need any additional information, please contact the undersigned at (303) 519-4503.

Sincerely,

Srividhya Viswanathan, P.E.
Vice President
SCS Engineers

Bill Haley, P.E.
Project Director
SCS Engineers

Enclosures

cc: Steve Cassulo, Waste Connections Inc
Nicole Ward, Waste Connections Inc
Mike Calleja, Waste Connections Inc
Randal Bodnar, Waste Connections Inc
Marcus Herzog, Waste Connections Inc
Pat Sullivan, SCS Engineers
Bob Dick, SCS Engineers
Cornelius Fong, SCS Engineers
Jessie Han, SCS Engineers
Gabrielle Stephens, SCS Engineers

BEFORE THE HEARING BOARD OF THE

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT

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From: Kim, James
Sent: Tuesday, October 31, 2023 2:20 PM
To: Baitong Chen <bchen@aqmd.gov>; Nathaniel Dickel <ndickel@aqmd.gov>; cojeda@aqmd.gov
Cc: Stephens, Gabrielle <gstephens@scsengineers.com>; Viswanathan, Srividhya <SViswanathan@scsengineers.com>; Haley, William (Bill) <WCHaley@scsengineers.com>; Sullivan, Pat <PSullivan@SCSEngineers.com>; Fong, Cornelius <CFong@scsengineers.com>; randal.bodnar <randal.bodnar@wasteconnections.com>; Steve Cassulo <Steven.Cassulo@WasteConnections.com>; Marcus Herzog <marcus.herzog@wasteconnections.com>; Nicole Ward <nicole.ward@wasteconnections.com>; John Perkey <John.Perkey@wasteconnections.com>
Subject: Chiquita Wellfield Expansion Status - Submittal

Good Afternoon,

Per Condition No. 15 of the Stipulated Order for Abatement, the following is our summary of the number of wells added at the Chiquita Canyon Landfill due by October 31:

Starting July 12, 2023, CCL began expanding the GCCS to address the landfill reaction. As of October 25, 2023, forty-nine (49) vertical extraction wells have been installed and are operational. Of these, seventeen (17) have well casings that were constructed using perforated and blank (solid) 8-inch diameter Poly Vinyl Chloride (PVC) or Chlorinated Poly Vinyl Chloride (CPVC) Schedule 80 pipe, and thirty-two (32) have well casings that were constructed using perforated and blank (solid) 8-inch diameter Stainless-Steel (SS) pipe. CCL uses CPVC well casings for wells consistently between 145 and 170 degrees Fahrenheit and SS well casings for wells consistently at or above 170 degrees Fahrenheit. 30 of these wells have been added since September 6, 2023, 5 of which were constructed with CPVC well casings, and 25 of which were constructed with SS well casings. All wells are single completion, with depths ranging between 36 feet (ft.) and 240 ft., and have the ability to accept de-watering pumps, as necessary. CCL is continuing to evaluate and install additional vertical dual extraction wells as needed. Any subsequent additions to the wellfield will be documented in the monthly reports submitted pursuant to Condition 8.

Thank you,

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