From: Stephens, Gabrielle <gstephens@scsengineers.com>
Sent: Thursday, July 11, 2024 3:21 PM
To: Baitong Chen
Cc: Nathaniel Dickel; Steve Cassulo; Nicole Ward; Rainey, Chuck; Kim, James
Subject: RE: Additional Information Request for Chiquita Canyon Landfill (FID # 119219) A/N 652678 to 652680 and 652688 to 652689
Attachments: South Coast AQMD Inv# 21116 Additional Application Fees 652678 to 652680.pdf; South Coast AQMD Inv# 21116 Fee Additional Application Fees 652678 to 652680 _Receipt.pdf

Hi Chris,

Please see our responses to your additional questions/comments in blue:

1. What is the current flowrate of gas/vapor vented to the flares system, in both percentages of the total landfill gas collection capacity and in scf/day, from the headspace of the leachate storage tanks, the landfill gas extracted from wells within the landfill, and the landfill gas collected at the landfill surface under the geosynthetic cover?
   We don't yet have flow rates of the gas coming from the leachate storage tanks as this is still in process. We anticipate the flow meters will be installed in mid to late July. In addition, the collectors under the geosynthetic cover are also still in the process of being installed and connected to the gas collection and control system since the cap is still being installed. Once all of this is completed in the coming weeks, we will be able to start collecting data.

   We understand that the flow meters will be installed in mid to late July. What is the designed/desired flowrate vented to the flare systems from the headspace of the leachate storage tanks, the landfill gas extracted from wells within the landfill, and the landfill gas collected at the landfill surface under the geosynthetic cover? Provide the basis for the design.

   There is no design flow rate vented to the flare systems from the headspace due to the constantly changing variables including tank treatment volumes, pumping rates, applied vacuum, etc.; however, we believe the flow rate will be very low to negligible as we simply want to maintain a vacuum on the tanks by applying the smallest amount of vacuum necessary to achieve a negative pressure.

   Landfill gas flow extracted from wells within the landfill varies from well to well, varying from a couple of cubic feet per minute (cfm) to 200 cfm. The estimated design flow from all the wells on-site is the maximum LFG generation*1.15 for Reaction gas increase*85% for collection efficiency. So for 2024, the estimated design collection for the wells is: 13,636 SCFM.

   There is no designed/desired flow rate for the surface collectors under the geosynthetic cover because we only want to collect the minimal amount of gas necessary that might accumulate under the liner but not collect oxygen and introduce it into the gas collection and control system (GCCS). At times, this amount might be zero, but at other times, we may see some low flow rates, but those are expected to be short-lived once we draw down the volume.

2. Provide a detailed summary on how the system ensures that excess oxygen/air is not vented into the landfill gas flares.

The surface collectors will be operated underneath the sealed geomembrane cap that assists in limiting the amount of oxygen that can enter the surface collectors. Additionally, the surface collectors will be equipped with wellheads that allow the monitoring of oxygen being collected so they can be tuned to reduce oxygen to the maximum extent possible.

How frequently does the facility monitor the oxygen level at each wellhead? Please provide the wellhead temperature and gas composition data, in Excel format, for the wells which were connected to the headspace of the leachate storage tanks, and/or connected to the surface collection system under the geosynthetic cover. This data is requested for the time period when these wells were first connected to the leachate tanks and/or subsurface collection system. For the Excel data, please indicate when the well was connected, and what it is connected to (i.e. venting 1 leachate tank, venting 5 leachate tanks, surface collection system.

The facility monitors LFG wells on a monthly or more frequent basis. The surface collectors under the geosynthetic cover have not been installed/connected to date; however, when they are connected, the facility will monitor on a monthly basis.

7. Please provide a payment in amount of $22,221.80 (permit application fee + higher fee + XPP fee). The original payment only included fees for one of the two flare applications.

   A payment in the amount of $22,221.80 plus service fee has been made and a copy of the payment voucher/receipt is attached.

Please let me know if you have any additional questions.

Thanks,
Gabrielle

Gabrielle Fourie Stephens
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gstephens@scsengineers.com

From: Baitong Chen <BChen@aqmd.gov>
Sent: Tuesday, July 2, 2024 5:12 PM
To: Stephens, Gabrielle <gstephens@scsengineers.com>
Cc: Nathaniel Dickel <NDickel@aqmd.gov>; Steve Cassulo <Steven.Cassulo@WasteConnections.com>; Nicole Ward <nicole.ward@wasteconnections.com>; Rainey, Chuck <CRainey@scsengineers.com>
Subject: RE: Additional Information Request for Chiquita Canyon Landfill (FID # 119219) A/N 652678 to 652680 and 652688 to 652689

Hi Gabrielle,

Thank you very much for providing the information. Please see our follow up questions in green below:

1. What is the current flowrate of gas/vapor vented to the flares system, in both percentages of the total landfill gas collection capacity and in scf/day, from the headspace of the leachate storage tanks, the landfill gas extracted from wells within the landfill, and the landfill gas collected at the landfill surface under the geosynthetic cover?
   We don't yet have flow rates of the gas coming from the leachate storage tanks as this is still in process. We anticipate the flow meters will be installed in mid to late July. In addition, the collectors under the geosynthetic cover are also still in the process of being installed and connected to the gas collection and control system since the cap is still being installed. Once all of this is completed in the coming weeks, we will be able to start collecting data.

   We understand that the flow meters will be installed in mid to late July. What is the designed/desired flowrate vented to the flare systems from the headspace of the leachate storage tanks, the landfill gas extracted from wells within the landfill, and the landfill gas collected at the landfill surface under the geosynthetic cover? Provide the basis for the design.

2. Provide a detailed summary on how the system ensures that excess oxygen/air is not vented into the landfill gas flares.
   The surface collectors will be operated underneath the sealed geomembrane cap that assists in limiting the amount of oxygen that can enter the surface collectors. Additionally, the surface collectors will be equipped with wellheads that allow the monitoring of oxygen being collected so they can be tuned to reduce oxygen to the maximum extent possible.

   How frequently does the facility monitor the oxygen level at each wellhead? Please provide the wellhead temperature and gas composition data, in Excel format, for the wells which were connected to the headspace of the leachate storage tanks, and/or connected to the surface collection system under the geosynthetic cover. This data is requested for the time period when these wells were first connected to the leachate tanks and/or subsurface collection system. For the Excel data, please indicate when the well was connected, and what it is connected to (i.e. venting 1 leachate tank, venting 5 leachate tanks, surface collection system.

7. Please provide a payment in amount of $22,221.80 (permit application fee + higher fee + XPP fee). The original payment only included fees for one of the two flare applications.

Please provide the requested information by July 12th, 2024.

Thanks
Chris

From: Stephens, Gabrielle <gstephens@scsengineers.com>
Sent: Friday, June 28, 2024 9:49 AM
To: Baitong Chen <BChen@aqmd.gov>; Rainey, Chuck <CRainey@scsengineers.com>
Cc: Nathaniel Dickel <NDickel@aqmd.gov>; Steve Cassulo <Steven.Cassulo@WasteConnections.com>; Nicole Ward <nicole.ward@wasteconnections.com>
Subject: [EXTERNAL] RE: Additional Information Request for Chiquita Canyon Landfill (FID # 119219) A/N 652678 to 652680 and 652688 to 652689

Good Morning Baitong,

The following is a response in red to your questions regarding the applications noted:

1. What is the current flowrate of gas/vapor vented to the flares system, in both percentages of the total landfill gas collection capacity and in scf/day, from the headspace of the leachate storage tanks, the landfill gas extracted from wells within the landfill, and the landfill gas collected at the landfill surface under the geosynthetic cover?
   We don't yet have flow rates of the gas coming from the leachate storage tanks as this is still in process. We anticipate the flow meters will be installed in mid to late July. In addition, the collectors under the geosynthetic cover are also still in the process of being installed and connected to the gas collection and control system since the cap is still being installed. Once all of this is completed in the coming weeks, we will be able to start collecting data.

2. Provide a detailed summary on how the system ensures that excess oxygen/air is not vented into the landfill gas flares.
   The surface collectors will be operated underneath the sealed geomembrane cap that assists in limiting the amount of oxygen that can enter the surface collectors. Additionally, the surface collectors will be equipped with wellheads that allow the monitoring of oxygen being collected so they can be tuned to reduce oxygen to the maximum extent possible.

3. Please provide the most recent lab sample/analysis reports for 1) the vapor in the untreated leachate storage tanks (if more recent than the sampling/analysis performed under Order for Abatement condition #56 per the April 24, 2024 Order language), 2) the vapor in the treated tanks to reflect the new treatment system in operation and 3) the landfill gas collected at the surface of the landfill below the geosynthetic cover in the sub-cover collection system.
   There have been no additional lab sampling/analyses performed for No. 1 or 2 since the sampling required under SOFA Condition No. 56. As for the request for analyses under No. 3, the collectors will be connected to the gas collection and control system (GCCS), which is sent to the current control devices for combustion so our current sampling program would not isolate the gas collected at the surface of the landfill below the geosynthetic cover.

4. Is there a total of twenty-five thousand feet of the ADS pipes? What is the max length in feet of each ADS pipe connected to the manifolds? How many manifolds are in the system? Please also provide the manufacture spec sheets for this equipment.
   Yes, at full buildout there is a maximum of twenty-five thousand feet of ADS pipes. The maximum footage connected to any single well head is 1,000 feet. When collectors exceed 1,000 feet, they may be connected to multiple manifolds or wellheads. Manifold numbers vary based on grading and cap placement at the time of construction of the surface collectors. The specification sheets are attached.

5. Our understanding is that the cover will be done in July. What is the expected date of completion for the sub-cover collection system?
   The sub cover collection system will be completed in August in connection with the full capping completion. Please note the site received an extension for capping until August.

6. Based on the site layout, what are the reasons that some of the manifolds are located outside of the geosynthetic cover area?
   Some manifolds may be located outside of the geosynthetic cover area to provide drainage of condensate in the pipes and prevent the blocking of the surface collectors or conveyance lines.

Please let us know if there is any additional information you need. Have a great weekend.

Thanks,
Gabrielle

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From: Baitong Chen <BChen@aqmd.gov>
Sent: Thursday, June 20, 2024 10:22 AM
To: Stephens, Gabrielle <gstephens@scsengineers.com>; Rainey, Chuck <CRainey@scsengineers.com>
Cc: Nathaniel Dickel <NDickel@aqmd.gov>; Steve Cassulo <Steven.Cassulo@WasteConnections.com>; Nicole Ward <nicole.ward@wasteconnections.com>
Subject: Additional Information Request for Chiquita Canyon Landfill (FID # 119219) A/N 652678 to 652680 and 652688 to 652689

Hello Gabrielle,

I have been assigned the applications (A/Ns 652678 to 652680 and 652688 to 652689) submitted for Chiquita Canyon Landfill (ID 119219) for the modification of the existing landfill gas flares and construction/operation of the new landfill gas collection system to collect surface level landfill gas under the geosynthetic cover. I have reviewed the provided information and have determined that additional information is required. Pursuant to Rule 210, this application(s) may be denied if the necessary additional information is not submitted. Please provide the following information by **June 28, 2024**, so I may proceed with processing these applications:

1. What is the current flowrate of gas/vapor vented to the flares system, in both percentages of the total landfill gas collection capacity and in scf/day, from the headspace of the leachate storage tanks, the landfill gas extracted from wells within the landfill, and the landfill gas collected at the landfill surface under the geosynthetic cover?
2. Provide a detailed summary on how the system ensures that excess oxygen/air is not vented into the landfill gas flares.
3. Please provide the most recent lab sample/analysis reports for 1) the vapor in the untreated leachate storage tanks (if more recent than the sampling/analysis performed under Order for Abatement condition #56 per the April 24, 2024 Order language), 2) the vapor in the treated tanks to reflect the new treatment system in operation and 3) the landfill gas collected at the surface of the landfill below the geosynthetic cover in the sub-cover collection system.
4. Is there a total of twenty-five thousand feet of the ADS pipes? What is the max length in feet of each ADS pipe connected to the manifolds? How many manifolds are in the system? Please also provide the manufacture spec sheets for this equipment.
5. Our understanding is that the cover will be done in July. What is the expected date of completion for the sub-cover collection system?
6. Based on the site layout, what are the reasons that some of the manifolds are located outside of the geosynthetic cover area?

Let me know if you have any questions.

Thanks
Chris

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