



air pollution control district
SANTA BARBARA COUNTY

HEARING BOARD STAFF REPORT

TYPE: REGULAR VARIANCE

CASE NO: 2021-12-R

DATE: December 1, 2021

1.0 GENERAL INFORMATION:

- 1.1 **PETITIONER COMPANY NAME:** Mustang Renewable Power Ventures, LLC
- 1.2 **EQUIPMENT LOCATION:** Tajiguas Landfill, 11470 Calle Real, Goleta, California
- 1.3 **PERMIT NUMBER(S):** Authority to Construct 14500-02
- 1.4 **FACILITY NAME/ID:** County of Santa Barbara – Tajiguas Anerobic Digestion/FID 11480
- 1.5 **FACILITY DESCRIPTION:** The Tajiguas Landfill is owned by County of Santa Barbara. In an effort to extend the life of the Tajiguas Landfill, reduce the amount of material landfilled, increase the recovery rate of recyclable materials, and generate renewable energy, the County installed equipment as part of the Tajiguas Resource Recovery Project (TRRP) at the landfill. In addition, SB 1383 requires the Tajiguas Landfill to reduce the amount of organic waste disposed of in the landfill by 50% by 2014. It further requires a 75% reduction in landfilled organics by 2025.

The TRRP is owned by the County of Santa Barbara and operated by the Petitioner, Mustang Renewable Power Ventures, LLC. The TRRP is composed of the Material Recovery Facility (MRF), Anaerobic Digestion Facility (ADF), Compost Management Unit (CMU), paper recycling and support systems.

The facility is located 26 miles west of the City of Santa Barbara in a canyon known as Cañada de la Pila. Immediately south of the landfill site are U.S. Highway 101, which provides access to the site, Union Pacific Railroad tracks, and the Pacific Ocean. The southern portion of the site is within the California Coastal Zone.

- 2.0 **REASON FOR THE VARIANCE REQUEST:** On October 11, 2021, CalFire responded to the Alisal wildfire, located northwest of Refugio Canyon near Hwy 101 along the Gaviota Coast. Due to the wildfire, the area was evacuated, including the Tajiguas Landfill. On October 12, 2021, the Santa Barbara County Board of Supervisors proclaimed a local emergency (Resolution 21-189) as a result of the Alisal Fire.

The Alisal Fire impacted the Tajiguas landfill operations in various ways. The embers sparked a fire in the MRF biofilter which consumed the MRF biofilter woodchip media. The fire migrated to the biofilter scrubbers on the north and south side of the biofilter and the acid storage tank on the southside. The acid scrubber vessels and the acid storage tank were destroyed by the fire and generated significant heat contributing to the destruction of the baghouse filter fans on both the north and south side of the biofilter.

The County is in the process of assessing the impacts of the Alisal Fire and intends to remediate all known impacts. The Petitioner does not have an estimated timeframe for the repairs, replacement and restoration of the biofilter and related equipment.

The Petitioner's permit requires the baghouses, scrubbers, and biofilters to be in operation when the MRF is receiving/processing waste. While the damages are being assessed and the repairs are being made, the Petitioner requests continued operation of the MRF without the use of the tipping area and material sorting area baghouses, scrubbers, and biofilters.

The Petitioner has requested continued operations of the Material Recovery Facility (MRF) without the following equipment that was damaged by the Alisal Fire: MRF baghouses, MRF scrubbers, and MRF biofilters.

Without Variance coverage, the Petitioner will be in violation of District Rule 206, and Conditions 9.C.1.b.vii, 9.C.1.c.iv, 9.C.1.d.iv, 9.C.2.b.iv, 9.C.4.a.i, 9.C.4.a.ii, 9.C.4.a.iii, 9.C.4.a.v, 9.C.4.a.vi, 9.C.4.a.viii, 9.C.4.a.x, 9.C.4.a.xi, 9.C.4.b.i, 9.C.4.b.ii, 9.C.4.b.iii, 9.C.4.c.i, 9.C.4.c.ii, 9.C.4.c.iii, 9.C.5.b.i, 9.C.5.b.ii, 9.C.5.b.iii, 9.C.5.b.v, 9.C.5.b.vi, 9.C.5.b.viii, 9.C.5.b.xi, 9.C.5.b.xii, 9.C.5.b.xvi, 9.C.5.c.i, 9.C.5.c.ii, 9.C.5.c.iv, 9.C.5.c.v, 9.C.5.c.vi, 9.C.5.c.viii, 9.C.5.c.ix, 9.C.5.c.x, 9.C.5.d.i, 9.C.5.d.ii, 9.C.5.d.v, 9.C.5.d.vi, 9.C.5.d.vii, 9.C.5.d.viii, 9.C.5.d.ix, 9.C.5.d.x, 9.C.6.a.i, 9.C.6.a.ii, 9.C.6.a.iii, 9.C.6.a.iv, 9.C.6.b.i, 9.C.6.b.ii, 9.C.6.b.iii, 9.C.6.c.i, 9.C.6.c.ii, 9.C.6.c.iii, 9.C.33.a, and 9.C.33.f of Authority to Construct 14500-02.

- 3.0 BACKGROUND:** A Petition for Variance Order 2021-12-R was submitted on October 15, 2021, by Mustang Renewable Power Ventures, LLC. If granted, 2021-12-R would grant enforcement relief from the date a decision is made through October 14, 2022, or the date compliance is achieved, whichever occurs first.
- 4.0 PERMITTING HISTORY:** The Petitioner submitted an application for ATC 14500-02 on August 18, 2017. ATC 14500-02 was issued on October 17, 2018. Some of the equipment listed in ATC 14500-02 began operations in December 2020.
- 5.0 COMPLIANCE HISTORY:** In the past three years, there have not been any Notices of Violation issued to Mustang Renewable Power Ventures, LLC.
- 6.0 REGULATORY ANALYSIS:** The Petitioner has requested the below permit conditions and rules to be included in the Variance Order.
- **Authority to Construct 14500-02, Conditions:**
 - 9.C.1.b.vii
 - *Tipping Area Exhaust:* All tipping area room exhaust shall be vented to the tipping area baghouse whenever MSW or CSSR are being handled.
 - 9.C.1.c.iv
 - *Tipping Area Negative Pressure:* The pressure drop between atmosphere and the tipping area shall be continuously monitored by a District-approved meter whenever the tipping area is accepting or handling MSW or CSSR. This pressure drop shall be measured with a District-approved pressure gauge.

- 9.C.1.d.iv
 - *Tipping Area Negative Pressure:* The permittee shall continuously record the differential pressure between atmosphere and tipping area. The permittee shall record the date and time of each excursion from the permitted differential pressure range, the cause of each excursion, the corrective action taken, and the date and time that the differential pressure was returned to the permitted range.

- 9.C.2.b.iv
 - *Materials Sorting Area Exhaust:* All materials sorting area room exhaust shall be vented to the materials sorting area baghouse whenever MSW or CSSR are being handled.

- 9.C.4.a.i
 - *Operational Restrictions:* The permittee shall not accept or handle MSW or CSSR in the tipping area or materials sorting area when their respective baghouses are not in operation. The permittee shall not process wet paper products in the rolling bed dryer when the paper recycling baghouse is not in operation.

- 9.C.4.a.ii
 - *Tipping Area Baghouse Pressure Drop:* Except during startup operations as defined below, the tipping area baghouse shall operate within a pressure drop range of 0.5” to 6” water column measured across the baghouse. If the pressure drop falls outside the permitted range, immediate corrective action shall be taken return the pressure drop to the permitted range. Startup operations begin with powering up the exhaust blower associated with the baghouse and end with the pressure drop across the baghouse reaching steady state or when the elapsed time since powering up reaches 3 hours, whichever is sooner.

- 9.C.4.a.iii
 - *Material Sorting Baghouse Pressure Drop:* Except during startup operations as defined below, the material sorting area baghouse shall operate within a pressure drop range of 0.5” to 6” water column measured across the baghouse. If the pressure drop falls outside the permitted range, immediate corrective action shall be taken return the pressure drop to the permitted range. Startup operations begin with powering up the exhaust blower associated with the baghouse and end with the pressure drop across the baghouse reaching steady state or when the elapsed time since powering up reaches 3 hours, whichever is sooner.

- 9.C.4.a.v
 - *Tipping Area Baghouse Air Flow Rate:* The tipping area baghouse exhaust air flow shall not exceed 52,000 scfm.

- 9.C.4.a.vi
 - *Materials Sorting Area Baghouse Air Flow Rate:* The materials sorting area baghouse exhaust air flow shall not exceed 55,022 scfm.
- 9.C.4.a.viii
 - *Tipping Area and Materials Sorting Area Baghouse Operational Limits:* The tipping area and materials sorting area baghouses each shall not exceed 24 hours/day and 8,322 hours/year of operations.
- 9.C.4.a.x
 - *Bags:* The bags in each baghouse shall be maintained as to not exhibit any tears, perforations, or other defects that would allow unfiltered material to bypass the bags. The bags shall be free of excessive caked material and allow sufficient air flow through them.
- 9.C.4.a.xi
 - *Baghouse Exhaust:* All tipping area and materials sorting area baghouse exhaust shall be vented to a biofilter.
- 9.C.4.b.i
 - *Pressure Drop:* The permittee shall install and maintain District-approved electronic pressure meters and recording systems to measure the inlet and outlet pressures of each baghouse. The differential pressures shall be continuously measured and recorded. The pressure meters shall be accurate to within 5 percent of the full scale reading. The pressure meters and recording systems shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and the calibration records shall be made available to the District upon request.
- 9.C.4.b.ii
 - *Air Flow Rate:* The permittee shall continuously record the flowrate from the baghouse inlets. The permittee shall record the dates and times of each excursion from the permitted maximum flowrate, the cause of each excursion, the corrective action taken, and the date and time that the flowrate was returned to below the permitted maximum value.
- 9.C.4.b.iii
 - *Bags:* The permittee shall check the bags in the baghouses for rips and tears on a weekly basis. Any ripped or torn bag shall be repaired or replaced before commencing operations.
- 9.C.4.c.i
 - *Pressure Drop:* The permittee shall continuously record the differential pressure across the baghouses. The permittee shall record the date and time of each excursion from the permitted differential pressure range, the cause of each excursion, the corrective action taken, and the date and time that the differential pressure was returned to the permitted range.

- 9.C.4.c.ii
 - *Air Flow Rate*: The permittee shall continuously record the flowrate from the baghouse inlets. The permittee shall record the dates and times of each excursion from the permitted maximum flowrate, the cause of each excursion, the corrective action taken, and the date and time that the flowrate was returned to below the permitted maximum value.
- 9.C.4.c.iii
 - *Maintenance Records*: The permittee shall maintain baghouse maintenance records that include the baghouse malfunctions and maintenance activities. The log shall include a malfunction summary specifying:
 1. Date of malfunction or preventive maintenance activity.
 2. Description of activity.
 3. Date and time taken to remedy the malfunction or perform maintenance.
- 9.C.5.b.i
 - *Operational Restrictions*: The permittee shall not accept or handle MSW or CSSR in the tipping area or materials sorting area when the associated biofilters are not in operation. The permittee shall not accept or handle food waste, green waste, or digestate in the ADF when the ADF biofilter is not in operation. Biofilters are considered to be operational as long as half of the cells are abating the exhaust sent to the filter.
- 9.C.5.b.ii
 - *Tipping Area Biofilter Inlet Flowrate*: The inlet flowrate to the tipping area biofilter shall not exceed 52,000 scfm.
- 9.C.5.b.iii
 - *Materials Sorting Area Biofilter Inlet Flowrate*: The inlet flowrate to the materials sorting area biofilter shall not exceed 55,022 scfm.
- 9.C.5.b.v
 - *Tipping Area Inlet Temperature*: The temperature of the tipping area biofilter inlet stream shall not exceed 105 °F.
- 9.C.5.b.vi
 - *Materials Sorting Area Inlet Temperature*: The temperature of the materials sorting area biofilter inlet stream shall not exceed 105 °F.
- 9.C.5.b.viii
 - *Biofilter Media Moisture Content*: The permittee shall maintain biofilter media moisture content between 40 and 60 percent.

- 9.C.5.b.xi
 - *Biofilter Subsurface Hydrogen Sulfide:* The hydrogen sulfide concentration at each biofilter subsurface shall not exceed 1 ppmv averaged over 10 points. Compliance with this condition shall be based on the monitoring conditions of this permit.
- 9.C.5.b.xii
 - *Biofilter Subsurface Ammonia:* The ammonia concentration at each biofilter subsurface shall not exceed 5 ppmv @ 15% O₂ averaged over 10 points. Compliance with this condition shall be based on the monitoring conditions of this permit.
- 9.C.5.b.xvi
 - *Visible Emissions:* No visible emissions shall emit from the biofilters. Compliance with this condition shall be based on quarterly Method 9 VEE testing.
- 9.C.5.c.i
 - *Inlet Flowrate:* The permittee shall install and maintain District-approved electronic flowrate meters and recording systems to measure the inlet flowrate of each biofilter. The flowrates shall be continuously measured and recorded. The flowrate meters shall be accurate to within 5 percent of the full-scale reading. The flowrate meters and recording systems shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and the calibration records shall be made available to the District upon request.
- 9.C.5.c.ii
 - *Inlet Temperature:* The permittee shall install and maintain District-approved electronic temperature measuring and recording systems to measure the inlet temperatures of each biofilter. The temperatures shall be continuously measured and recorded. The temperature meters shall be accurate to within 5 percent of the full-scale reading. The temperature measuring and recording systems shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and the calibration records shall be made available to the District upon request.
- 9.C.5.c.iv
 - *Biofilter Media Replacement Hydrogen Sulfide Measurements:* When a biofilter is shut down for media replacement, perimeter hydrogen sulfide monitoring shall be conducted downwind of the biofilter in the direction of the closest offsite receptor at least once every 4 hours from 6:30 am to 4 pm (otherwise on call) using a District-approved meter. Monitoring shall be conducted until the biofilter is in operation.
- 9.C.5.c.v
 - *Visible Emissions:* On a quarterly basis, the permittee shall conduct a Method 9 VEE for each biofilter. TRRP staff or their consultant,

certified in VEE, shall perform the VEE. The VEE shall be conducted when the biofilter is abating emissions.

- 9.C.5.c.vi
 - *Biofilter Water System*: The permittee shall conduct daily inspections of each biofilter water spray system and water pump to ensure the equipment is properly operating and maintaining the biofilter media sufficiently moist.
- 9.C.5.c.viii
 - *Biofilter Subsurface Moisture Monitoring*: On a weekly basis, the permittee shall measure each biofilter subsurface media moisture content using a District approved moisture sensor at a location of at least 6 inches of depth into the biofilter, at a minimum of 5 locations. The moisture sensor shall be calibrated prior to each monitoring event.
- 9.C.5.c.ix
 - *Biofilter Surface Hydrogen Sulfide Monitoring*: The hydrogen sulfide concentration at each biofilter surface shall be monitored on a weekly basis using colorimetric detection tubes. The measured hydrogen sulfide concentration shall not exceed 1 ppmv averaged over a minimum of 10 points.
- 9.C.5.c.x
 - *Biofilter Surface Ammonia Monitoring*: The ammonia concentration at each biofilter surface shall be monitored on a weekly basis using colorimetric detection tubes. The measured ammonia concentration shall not exceed 5 ppmv @ 15% O₂ averaged over a minimum of 10 points on the surface of a biofilter.
- 9.C.5.d.i
 - *Inlet Flowrate*: The permittee shall continuously record the flowrates from the biofilter inlets. The permittee shall record the dates and times of each excursion from the permitted maximum flowrates, the cause of each excursion, the corrective action taken, and the date and time that the flowrate was returned to below the permitted maximum value.
- 9.C.5.d.ii
 - *Inlet Temperature*: The permittee shall continuously record the temperature of the biofilter inlets. The permittee shall record the date and time of each excursion from the permitted maximum temperatures, the cause of each excursion, the corrective action taken, and the date and time that the temperature was returned to below the permitted maximum value.
- 9.C.5.d.v
 - *Visible Emissions*: Records of each quarterly Method 9 VEE shall be maintained. The records shall include the date and time of each reading,

name of reader, most recent Method 9 certification date of reader, individual interval opacity readings required by Method 9, and the final opacity reading.

- 9.C.5.d.vi
 - *Biofilter Water System:* The permittee shall record all corrective actions taken as a result of the daily biofilter water spray system and water pumps inspections.

- 9.C.5.d.vii
 - *Biofilter Subsurface Moisture Monitoring:* The permittee shall record the results of the weekly biofilter media moisture content measurements and if the media moisture content was in the permitted range. All corrective actions taken as a result of the weekly measurements shall be recorded including the re-test dates, location of exceedances, and re-test results.

- 9.C.5.d.viii
 - *Biofilter Subsurface Moisture Monitoring:* The permittee shall record the results of the weekly biofilter media moisture content measurements and if the media moisture content was in the permitted range. All corrective actions taken as a result of the weekly measurements shall be recorded including the re-test dates, location of exceedances, and re-test results.

- 9.C.5.d.ix
 - *Biofilter Surface Hydrogen Sulfide Monitoring:* The permittee shall record the results of the weekly biofilter surface hydrogen sulfide measurements, if the average of the measurements was below 1 ppmv, and if any single reading exceeded 5 ppmv. All corrective actions taken as a result of the weekly measurements shall be recorded including the re-test dates, location of exceedances, and re-test results.

- 9.C.5.d.x
 - *Biofilter Surface Ammonia Monitoring:* The permittee shall record the results of the weekly biofilter surface ammonia measurements, if the average of the measurements was below 5 ppmv @ 15% O₂, and if any single reading exceeded 20 ppmv @ 15% O₂. All corrective actions taken as a result of the weekly measurements shall be recorded including the re-test dates, location of exceedances, and re-test results.

- 9.C.6.a.i
 - *Operational Restrictions:* The permittee shall not accept or handle MSW or CSSR in the tipping area or materials sorting area when the associated biofilter scrubbers are not in operation. The permittee shall not accept or handle food waste, green waste, or digestate in the ADF when the ADF biofilter scrubbers are not in operation. Anaerobic digesters that have been loaded with material may continue the digestion

process when the ADF biofilter is down. However, no new material may be loaded into the digesters when the ADF biofilter is down.

- 9.C.6.a.ii
 - *Recirculation Water pH:* The permittee shall maintain the pH of the recirculated water in each biofilter scrubber between 4 and 6.
- 9.C.6.a.iii
 - *Recirculating Flow:* The permittee shall maintain the water recirculating flowrate for each biofilter scrubber between 12 and 14 gallons per minute.
- 9.C.6.a.iv
 - *Pressure Drop:* The permittee shall maintain each biofilter scrubber pressure drop between 1.2” and 3.2” water column.
- 9.C.6.b.i
 - *Recirculation Water pH:* The permittee shall install and maintain District approved electronic pH measuring and recording systems to measure biofilter scrubber recirculation water pHs. The pHs shall be continuously measured and recorded. The pH meters shall be accurate to within 5 percent of the full scale reading. The pH measuring and recording systems shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and the calibration records shall be made available to the District upon request.
- 9.C.6.b.ii
 - *Recirculation Water Flowrate:* The permittee shall install and maintain District approved electronic flowrate meters and recording systems to measure the biofilter scrubber recirculation water flowrates. The recirculation water flowrates shall be continuously measured and recorded. The recirculation water flowrate meters shall be accurate to within 5 percent of the full scale reading. The recirculation water flowrate measuring and recording systems shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and the calibration records shall be made available to the District upon request.
- 9.C.6.b.iii
 - *Pressure Drop:* The permittee shall install and maintain District-approved electronic pressure meters and recording system to measure the inlet and outlet pressures of the biofilter scrubbers. The differential pressures shall be continuously measured and recorded. The pressure meters shall be accurate to within 5 percent of the full scale reading. The pressure meters and recording systems shall be calibrated, maintained, and operated in accordance with the manufacturer's specifications and the calibration records shall be made available to the District upon request.

- 9.C.6.c.i
 - *Recirculation Water pH*: The permittee shall continuously record the pHs of the biofilter scrubber recirculation water. The permittee shall record the date and time of each excursion from the permitted pH range, the cause of each excursion, the corrective action taken, and the date and time that the pH was returned to the permitted range.
- 9.C.6.c.ii
 - *Recirculation Water Flowrate*: The permittee shall continuously record the recirculation water flowrates for each biofilter scrubber. The permittee shall record the dates and times of each excursion from the permitted maximum recirculation water flowrate, the cause of each excursion, the corrective action taken, and the date and time that the recirculation water flowrate was returned to below the permitted maximum value.
- 9.C.6.c.iii
 - *Pressure Drop*: The permittee shall continuously record the differential pressures across the each biofilter scrubber. The permittee shall record the date and time of each excursion from the permitted differential pressure range, the cause of each excursion, the corrective action taken, and the date and time that the differential pressure was returned to the permitted range.
- 9.C.33.a and 9.C.33.f
 - Documents Incorporated by Reference. The documents listed below, including any District approved updates thereof, are incorporated herein and shall have the full force and effect of a permit condition for this operating permit. These documents shall be implemented for the life of the Project and shall be made available to District inspection staff upon request.
 - a. Baghouse Inspection and Maintenance Plan (to be submitted)
 - f. Biofilter Monitoring Plan (to be submitted)

7.0 **EMISSIONS ANALYSIS**: The Petitioner indicated there may be elevated PM emissions from the MRF while the baghouse filters are inoperable. However, the PM emissions are not expected to exceed the permitted limits. In addition, the ammonia and hydrogen sulfide indoor air monitoring resulted in emissions less than permitted limits. As a result, the Petitioner does not anticipate excess emissions with the granting of this Variance.

8.0 **RESERVED**

9.0 **OTHER FACTORS**: None.

10.0 **DISTRICT RECOMMENDATION**: The District supports the Petitioner's variance request.

11.0 ATTACHMENTS:

- Attachment 1 – Draft Regular Variance Order 2021-12-R



Aimee Long, Air Quality Specialist
Compliance Division

November 19, 2021
Date