air pollution control district
SANTA BARBARA COUNTY

HEARING BOARD STAFF REPORT

TYPE: **REGULAR VARIANCE**

CASE NO: **2024-06-R**

DATE: **July 3, 2024**

1.0 GENERAL INFORMATION:

1.1 PETITIONER COMPANY NAME: County Santa Barbara, Public Works

1.2 EQUIPMENT LOCATION: Tajiguas Landfill, 14470 Calle Real, Goleta, California

1.3 PERMIT NUMBER(S): Authority to Construct 14500-10

1.4 FACILITY NAME/ID: County of Santa Barbara – Tajiguas Anerobic Digestion / FID 11480

1.5 FACILITY DESCRIPTION: The Tajiguas Landfill is owned by the 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 Tajiguas ReSource Recovery Project (ReSource Center) equipment was installed at the landfill. In addition, SB 1383 required 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 equipment is owned by the County of Santa Barbara (County) and was previously operated by MSB Investors, LLC (MSB) under contract (Appendix A of the Petition) with the Petitioner.

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:

The ReSource Center was designed, constructed, and previously operated by MSB Investors, LLC (MSB) and owned by the Santa Barbara County Public Works Department. The ReSource Center includes the separation of waste products, anerobic digestion process, composting and combustion equipment. On December 13, 2016, the Petitioner contracted (Appendix A of the Petition) with MSB for the development of the County's ReSource Center. The contract identified MSB (Contractor) as having exclusive control over the manner and means of performing Contractor obligations and Persons performing them. In addition, the Contract required MSB to comply with all federal, State, City and any other governmental unit permits, order, licenses, approvals and CEQA mitigations required by Applicable Law for the facility.

On November 6, 2023, the Petitioner issued an intent to terminate letter to MSB with formal notification of the County's intent to terminate the Contract. Included in this letter is an explanation of why the termination was occurring and supporting documentation (including nonpayment of subcontractors). A copy of this letter is included in Appendix B of the Petition.

On December 12, 2023, the County Board of Supervisors unanimously voted to terminate the County's Contract with MSB for the ReSource Center due to failure to meet contractual

obligations. Initially, two termination dates were set for the ReSource Center. The MRF operations were immediately terminated and transferred to the County, while the ADF and CMU operations would continue to be operated by MSB for at least 180 days, per the term of the Contract. However, on January 3, 2024, MSB requested immediate transfer of all ReSource Center permitting, compliance, operational and maintenance obligations to the County, and immediately stopped all performance under the Contract. As a result, the Contract with the County and MSB was fully terminated, and the County took over operations and environmental compliance for the entire ReSource Center.

As the Petitioner began operations of the ReSource Center, it became evident to the County that MSB failed to fully communicate the state of the facility and equipment. The County is in the process of making the necessary repairs to return the facility to compliance, however, due to the state of the facility additional time is necessary. As a result, variance relief is being sought.

Without coverage, the Petitioner will be in violation of District Rules 328.C.2, C.4, G and I.1 and 206, ATC 14500-Mod 10, Conditions 9.B.12, 9.C.9.a.i, 9.C.9.a.v., 9.C.9.b.ii, 9.C.9.b.xvii, 9.C.9.b.xviii, 9.C.9.c.xiii (ADF CHP IC engines only), 9.C.19.a (ADF CHP IC engines only), 9.C.21 (ADF and MRF CHP IC engines only), 9.C.22 and 9.C.23.

3.0 BACKGROUND: The Petitioner is currently operating under Interim Variance Order 2024-05-I, granted on May 31, 2024, by Chair Dressler. Variance Order 2024-05-I provides relief from source testing requirements for the ADF CHP IC engines, BACT emissions limits for ADF and MRF CHP IC engines, emissions controls and maintenance for the ADF and MRF CHP IC engines, CEMS requirements and data telemetry for the ADF and MRF CHP IC engines, and CEMS excursions until the repairs can be made from March 22, 2024 through June 19, 2024.

If granted, Variance Order 2024-06-R, would allow relief from source testing requirements for the ADF CHP IC engines, BACT emissions limits for ADF and MRF CHP IC engines, emissions controls and maintenance for the ADF and MRF CHP IC engines, CEMS requirements and data telemetry for the ADF and MRF CHP IC engines, and CEMS excursions until the repairs can be made from June 20, 2024 through March 21, 2025, or the date compliance is achieved, whichever occurs first.

4.0 PERMITTING HISTORY: The Petitioner has undergone several permitting actions. These actions are described below.

- On August 18, 2021, the Petitioner submitted a permit modification application (ATC 14500-02) to install one biogas flare to purge the anerobic digesters of excess methane, two combine heat and power co-generation engines to convert biogas from the ADF into electricity and one emergency standby generator. ATC 14500-02 was issued on October 17, 2018. Some of the equipment listed in ATC 14500-02 began operations in December 2020. ATC 14500-02 was superseded on February 1, 2022.
- On February 3, 2023, the Petitioner submitted a permit modification application (ATC 14500-04) to install one emergency standby generator to be operated at the ADF, replace the emergency standby generator with an engine with a greater horsepower rating to be operated at the MRF and other changes. ATC 14500-04 was issued on February 1, 2022.

- On March 30, 2020, the Petitioner submitted a permit modification application (ATC 14500-05) for modifications to the ReSource Center project. ATC 14500-05 was issued on February 1, 2022, and superseded ATC 14500-02 and ATC 14500-04.
- On November 9, 2020, the Petitioner submitted a permit modification application (ATC 14500-06) to modify the source compliance demonstration period conditions. ATC 14500-06 was issued on December 2, 2020, and was superseded on February 3, 2021.
- On February 1, 2021, the Petitioner submitted a permit modification application (ATC 14500-07) to modify the source compliance demonstration period condition. ATC 14500-07 was issued on February 3, 2021, and was superseded on February 1, 2021.
- On June 24, 2021, the Petitioner submitted a permit modification application (ATC 14500-08) for a renewable gas project. This application was deemed incomplete on February 2, 2022, and is pending additional information from the Petitioner.
- On March 11, 2022, the Petitioner submitted a permit modification application (ATC 14500-09), to include the use of a deodorizing misting system. ATC 14500-09 was deemed complete on April 13, 2022, issued final on August 18, 2022, and superseded on May 22, 2024, with the issuance of ATC 14500-10.
- On July 5, 2022, the Petitioner submitted a permit modification application (ATC 14500-10) to remove from permit the MRF biofilters and scrubbers associated with Variance Order 2021-12-M2 (the baghouses will remain) and for additional modifications and new equipment. This permit application was deemed incomplete 7 times, eventually being deemed complete on June 22, 2023. The final permit could not be issued until project changes and California Environmental Quality Act (CEQA) determination are finalized and approved by Santa Barbara County (County). On May 22, 2024, ATC 14500-10 was issued and superseded ATC 14500-05, with the issuance of ATC 14500-10.
- On October 20, 2022, the Petitioner submitted a permit modification application (ATC 15993) for modifications and to install a power screen at the compost management unit. ATC 15993 was issued April 12, 2023, and was superseded May 22, 2024, with the issuance of ATC 14500-10.
- On January 27, 2023, the Petitioner submitted a permit application (ATC 16050) to install and conduct an aeration pilot study at the composting management unit. ATC 16050 was issued February 13, 2023, and superseded April 5, 2023.
- On March 8, 2023, the Petitioner submitted a permit modification application (ATC 16050-01) to expand the aeration pilot study at the composting management unit. ATC 16050-01 was issued on April 5, 2023, and cancelled on March 12, 2024.
- On April 11, 2023, the Petitioner submitted a permit modification application (ATC 14500-11) to install an inoculant solutions odor control system and piping from the ADF building to the digestate loadout bunker at the compost management system. The permit modification application was withdrawn on April 13, 2023.
- On August 4, 2023, the Petitioner submitted a permit modification application to install a new odor control misting system at the MRF. ATC 14500-12 was issued on September 1, 2023, and superseded May 22, 2024, with the issuance of ATC 14500-10.
- On August 4, 2023, the Petitioner submitted a permit modification application (ATC 14500-13) to install the GORE windrow cover system. ATC 14500-13 was issued on January 26, 2024, and superseded on May 22, 2024, with the issuance of ATC 14500-10.
- On January 30, 2024, the Petitioner submitted a transfer of owner/operator application. Due outstanding NOV penalties and invoices, the transfer could not be completed until

these were addressed. The Petitioner paid the NOV penalties and invoices, and the transfer was issued final on April 16, 2024.

- On February 27, 2024, the Petitioner submitted an application (ATC 16230) to replace the composting screens. ATC 16230 was superseded on May 22, 2024, with the issuance of ATC 14500-10.
- On March 7, 2024, the Petitioner submitted an application modification (ATC 16230) to replace the composting screens. ATC 16230-01 was superseded on May 22, 2024, with the issuance of ATC 14500-10.
- On May 9, 2024, the Petitioner submitted an application to install a ferric chloride treatment system. This permit application was deemed complete on May 15, 2024.
- On May 22, 2024, the Petitioner applied for a permit (PTO 16278) for the equipment installed under ATC 14500-13.

5.0 COMPLIANCE HISTORY: In the past three years, the following Notices of Violations (NOVs) were issued to the facility:

- NOV 12923 issued on March 2, 2022, for installing an odor control device at the Anerobic Digestor Facility (ADF) without a District permit.
- NOV 12924 issued on March 2, 2022, for failing to submit the 2021 second half Semi-Annual compliance Verification Report (CVR) by the March 1, 2022 deadline.
- NOV 13195 issued on September 20, 2022, for failing to obtain written approval prior to conducting source testing on the ADF engines.
- NOV 13196 issued on September 20, 2022, for failing to obtain written approval prior to conducting source testing on the ADF flare.
- NOV 13215 issued on November 10, 2022, for failing to submit the monthly reports by the due date for 10 reporting periods as required by Variance Order 2021-12-R.
- NOV 13255 issued on January 27, 2023, for failing to submit the windrow source test results within 45 days of completion.
- NOV 13258 issued on February 1, 2023, for failing to submit the MRF engine 1 and engine 2 source testing results within 45 days of completion.
- NOV 13315 issued on May 3, 2023, for failing to submit the monthly reports for 3 reporting periods as required by Variance Order 2021-12-M1.
- NOV 13313 issued on May 3, 2023, for failing to submit the ADF biofilter source test results within 45 days of completion.
- NOV 13312 issued on May 3, 2023, for failing to conduct source testing on the following pollutants: acetaldehyde, methanol, naphthalene, ethylbenzene and perchloroethylene during the September 27, 2022 ADF biofilter source test.
- NOV 13310 issued on May 3, 2023, for failing to conduct source testing on the following pollutants: hydrogen sulfide, acetaldehyde, methanol, naphthalene, ethylbenzene and perchloroethylene during the September 28, 2022 windrow source test.
- NOV 13266 issued on May 3, 2023, for installing an odor eliminating misting system without a District permit.
- NOV 13318 issued on May 10, 2023, for venting the ADF exhaust to atmosphere.
- NOV 13338 issued on May 26, 2023, for operating the GORE composting pilot project without a District permit.

- NOV 13541 issued on November 15, 2023, for failing to conduct the ADF CHP IC engine 2 source test by the anniversary date.
- NOV 13540 issued on November 15, 2023, for failing to conduct the ADF CHP IC engine 1 source test by the anniversary date.
- NOV 13539 issued on November 15, 2023, for failing to submit the windrow source test results within 30 days of test completion.
- NOV 13538 issued on November 15, 2023, for failing to conduct the windrow source test by the anniversary date.
- NOV 13537 issued on November 15, 2023, for failing to submit the ADF biofilter source test plan within 30 days of source testing.
- NOV 13536 issued on November 15, 2023, for failing to conduct the ADF biofilter source test by the anniversary date.
- NOV 13535 issued on November 15, 2023, for failing to conduct the ADF flare source test by the anniversary date.
- NOV 13534 issued on November 15, 2023, for failing to conduct the MRF flare source test by the anniversary date.
- NOV 13557 issued on December 21, 2023, for failing to submit the MRF flare source test results within 45 days of source test.
- NOV 13556 issued on December 21, 2023, for failing to submit the ADF flare source test results within 45 days of source test.
- NOV 13632 issued on April 24, 2024, for failing to telemeter CEMS data for the MRF CHP IC engines 1 and 2.
- NOV 13631 issued on April 24, 2024, for failing to telemeter CEMS data for the ADF CHP IC engines 1 and 2.
- NOV 13630 issued on April 24, 2024, for failing to operate within the specified parameters at the ADF.
- NOV 13628 issued on April 24, 2024, for failing to obtain a District permit prior to installing the ferric chloride pretreatment system.
- NOV 13652 issued on May 15, 2024, for failing to thoroughly inspect for asbestos prior to demolition/renovation and failing to notify the District of said demolition.
- NOV 13651 issued on May 15, 2024, for operating the ADF CHP IC engine 2 on biogas exceeding the permitted limit.
- NOV 13650 issued on May 15, 2024, for failing to maintain and operate the SCR/Oxidation Catalyst Control Systems for MRF CHP Engine 2.
- NOV 13649 issued on May 15, 2024, for failing to maintain and operate the SCR/Oxidation Catalyst Control Systems for MRF CHP Engine 1.
- NOV 13648 issued on May 15, 2024, for failing to maintain and operate the SCR/Oxidation Catalyst Control Systems for ADF CHP Engine 2.
- NOV 13647 issued on May 15, 2024, for failing to maintain and operate the SCR/Oxidation Catalyst Control Systems for ADF CHP Engine 1.
- NOV 13646 issued on May 15, 2024, for operating the ADF flare on biogas fuel greater than the permitted limit.
- NOV 13645 issued on May 15, 2024, for operating the ADF CHP engine 1 on biogas fuel greater the permitted limit.
- NOV 13644 issued on May 15, 2024, for failing change the carbon media in the lead vessel within 3 days of a hydrogen sulfide reading of 16 ppm (or greater) on the at the sampling port located between the activate carbon vessels.

6.0 REGULATORY ANALYSIS: The Petitioner requested the below permit conditions and rules be included in the Variance Order.

- **Authority to Construct 14500-10, Conditions:**
  - 9.B.12
    - **Continuous Emissions Monitoring (Rule 328).** The permittee shall comply with the requirements of Section C, F, G, H and I of Rule 328. Compliance shall be based on the monitoring, recordkeeping and reporting requirements of this permit as well as onsite inspections. [*Ref: District Rule 328*]

  - 9.C.9.a.i
    - *BACT Emissions Limits:* Emissions from the CHP engines shall not exceed the BACT limits of:

      1. *ADF CHP Engines*:

NO_x (as NO_2)	9 ppmvd @ 15% O_2
ROC (as methane)	26 ppmvd @ 15% O_2
CO	38 ppmvd @ 15% O_2

      2. *MRF CHP Engines*:

NO_x (as NO_2)	9 ppmvd @ 15% O_2
ROC (as methane)	25 ppmvd @ 15% O_2
CO	25 ppmvd @ 15% O_2

      Compliance with the BACT limits ensures compliance with NSPS Subpart JJJJ emission limits.

  - 9.C.9.a.v
    - *CEMS Emissions Excursions:* Excursions of CEMS concentrations (ppmv @ 15% O_2) for NO_x or CO that are determined by the District to be directly attributable to biogas or LFG quality irregularities are not to be considered a violation of Condition 9.C.9.a, provided a Corrective Action Plan is implemented as required by Condition 9.C.24.

  - 9.C.9.b.ii
    - *Emission Controls:* Each CHP engine shall be equipped with an air-fuel controller and SCR/Oxidation Catalyst System to control exhaust NO_x, ROC, and CO emissions. The emission controls shall be used at all times when operating the CHP engines.

- 9.C.9.b.xvii
  - *Urea Injection System:* Except during startup and shutdown of a CHP engine and SCR/Oxidation Catalyst Control System, the urea injection systems shall be operational at all times.

- 9.C.9.b.xviii
  - *SCR/Oxidation Catalyst Maintenance:* The SCR/Oxidation Catalyst Control Systems shall be maintained and replaced in accordance with the manufacturer's specifications and recommendations.

- 9.C.9.c.xiii (ADF CHP IC engines only)
  - *Source Testing:* The permittee shall perform CHP engine source testing of the emissions and process parameters listed in Table 4.7 and Table 4.8. The permittee shall adhere to the requirements of Condition 9.C.19.

- 9.C.19.a (ADF CHP IC engines only)
  - The permittee shall conduct source testing of air emissions and process parameters listed in Tables 4.5 through 4.13 of this permit. The ADF biofilter, compost piles, ADF CHP engines, MRF CHP engines, ADF enclosed flare (purging and engine offline), and MRF enclosed flare shall be source tested not less than once every 12 months based on the source test anniversary dates indicated in the table below.

Equipment	Source Test Anniversary Date
ADF Biofilter	September 27th
Compost Piles	TBD under SCDP for ATC Mod 14500-13
ADF CHP Engines	March 9th
MRF CHP Engines	October 18th
ADF Enclosed Flare	March 17th
MRF Enclosed Flare	June 2nd

- 9.C.21 (ADF and MRF CHP IC engines only)
  - **Best Available Control Technology (BACT).** The permittee shall apply emission control technology and plant design measures that represent BACT to the operation of the equipment/facilities as described in this permit. Section 4.14.1, Table 4.1, Table 4.2, and the *Emissions, Operational, Monitoring, Recordkeeping and Reporting* Conditions of this permit define the specific control technology and performance standard emission limits for BACT. The BACT shall be in place, and shall be operational at all times, for the life of the project. BACT related monitoring, recordkeeping and reporting requirements are defined in those specific permit conditions. BACT related requirements are also defined in Condition 9.C.19.

- 9.C.22
  - **Continuous Emission Monitoring System (CEMS).** The permittee shall implement a CEMS program for emissions and process parameters as specified in Table 4.3. The permittee shall implement the District-

approved CEMS Plan (to be updated) and the CEMS monitors shall be in place and functional for the life of the project. The District shall use the CEMS data alone or in combination with other data, to verify and enforce project conditions. Excess emissions indicated by the CEMS systems shall be considered a violation of the applicable emission limits.

a. The CEMS shall be installed and operated to measure each ADF and MRF CHP engine exhaust stack concentration for NO_x (as NO_2), CO, ammonia, and O_2 on a dry basis. To determine the ammonia stack concentrations, the permittee shall follow the procedures in the District-approved CEMS Plan. This monitoring system shall comply with the requirements of Rule 328 and the District CEMS Protocol (October 22, 1992). Prior to installation, this monitoring system shall be approved in writing by the District via the submittal of a CEMS Plan (to be updated) that adheres to the requirements of the District's CEMS Protocol (October 22, 1992).

b. On a semi-annual basis, the permittee shall submit data for CEMS downtime and CEMS detected excess emissions in a format approved by the District. This report shall be submitted for each calendar quarter in accordance with the requirements of Rule 328 and the District-approved CEMS Plan (to be updated).

- 9.C.23
  - **Data Telemetry.** The permittee shall telemeter monitoring data to the District as specified by Condition 9.C.22 of this permit. The data telemetry equipment shall be in place and functional for the life of the project consistent with the above-specified conditions. This telemetry equipment shall be compatible with the District's Central DAS.

- **District Rule 328.C.2**
  - The Control Officer may require the owner or operator of a stationary source to install, calibrate, operate and maintain in good working order equipment for continuously monitoring and recording emissions from a stationary source, provided that:

    a. The stationary source emits, into the atmosphere, 2.3 kilograms (5 lbs/hr) or more of nonmethane hydrocarbons, oxides of nitrogen, oxides of sulfur, reduced sulfur compounds or particulate matter or 40 lbs/hr of any contaminant and;

    b. The California Air Resources Board has determined and specified, pursuant to Health and Safety Code, Sections 42701 and 42702, that monitoring equipment is available, technologically feasible, and economically reasonable for the type of stationary source in question; and

    c. After considering all of the relevant circumstances, the Control Officer has determined that requiring such monitoring equipment is necessary and reasonable. In making such determination, the Control Officer shall, without

limitations, consider the economic impact on the stationary source and the extent to which similar emission information may be obtained through other less costly methods or reporting procedures with comparable accuracy and control.

- **District Rule 328.C.4**
  - All monitoring devices shall be equipped with a continuously operating chart recorder. The chart recordings shall be annotated with date, time and operator's initials at the following times:

    a. At the beginning of each work shift

    b. At the beginning of each start-up and shut-down of the process equipment.

    c. Anytime any change is made to the monitor and/or its recorder.

    d. Anytime there is a process rate change.

- District Rule 328.G and I.1
  - Owners or operators subject to this Rule shall:

    1. Notify the Control Officer of any breakdown or shut-down of the monitoring equipment within 4 hours of the start of the next business day.

    2. Report to the Control Officer, within 48 hours after occurrence, the violation of any emission standard to which the stationary source is required to conform.

    3. Submit a quarterly written report during the first week of each calendar quarter, to include:

    a. Monitoring system failures for periods when the continuous monitoring system was inoperative except:
    1) Zero/Span checks.
    2) Monitoring system repair and adjustments.

    b. The date, time interval, magnitude and nature of excess emissions, reported in the units of the applicable emission standard. The cause of the violation, corrective actions taken and preventive measures adopted shall be provided.

    c. Reports on opacity violations shall provide:
    1) The number of (3) three minute periods during which the average opacity exceeded the standard for each hour of operation.
    2) Average values may be obtained by integration over the averaging period or by arithmetically averaging a minimum of four equally spaced instantaneous opacity measurements each minute. Any time period exempted shall be considered before determining the excess averages of opacity.

4. Negative Declarations. Negative declarations shall be submitted quarterly when no excess emissions have occurred.

7.0 **EMISSIONS ANALYSIS**: At this time, it is unknown what the excess emissions are expected to be with the granting of this variance. The Petitioner will report all excess emissions on a monthly basis.

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 – Variance Petition for 2024-06-R and Petition Attachments
- Attachment 2 – Interim Variance Order 2024-05-I
- Attachment 3 – DRAFT Variance Order 2024-06-R

Aimee Long, Air Quality Specialist
Compliance Division

June 5, 2024
Date