STATEMENT OF BASIS
Title V Permit Renewal

Facility Name: Minnesota Methane LLC – Miramar & Miramar Energy

Title V App. Number: APCD2018-APP-005425

Title V Permit Number: APCD2008-TVP-971535

Facility ID: APCD1996-SITE-09778

Equipment Address: 5244 Convoy St. San Diego, CA 92111

Facility Contact: Suparna Chakladar

Contact Phone: (951) 833-4153

Permit Engineer: Maria Galvez

Date: February 25, 2026

Senior Engineer:

Recoverable Signature

X Nicholas Horres

Nicholas Horres
Senior Engineer
Signed by: e933f2c8-9225-4b84-9a71-81071ff0330b

1.0 Type of Action and Summary of Changes

Application APCD2018-APP-005425 requests issuance of a renewal Title V Permit for Minnesota Methane Miramar and Miramar Energy (Title V Permit APCD2008-PTO-971535), a landfill-gas-to-energy site and cogeneration plant. The facility is subject to Title V permitting because it is a federal major source of CO, NO_x, VOC, and HAP.

2.0 History of Title V Applications and Modifications/Applications since previous Renewal:

The renewal application was received on June 11, 2018. This renewal application was submitted at least 12 months but not more than 18 months prior to permit expiration of June 13, 2019, in accordance with Rule 1410. Therefore, the renewal application is timely.

The following table summarizes all previous applications at this facility affecting the Title V permit.

Application Number	Application Description/Type	Affected Emission Units	Outcome
APCD1998-APP-971535	Initial	All	Approved
APCD2005-APP-982797	Renewal	All	Approved
APCD2010-APP-001216	Renewal	All	Approved
APCD2013-APP-002977	Significant	APCD2013-PTO-001632, APCD2013-PTO-001633	Approved with Renewal
APCD2018-APP-005425	Current Title V Renewal Application	Cogeneration facility (2 generators @ 4 engines each), and 2 Landfill Gas Engines	Current Renewal

Since the previous renewal, the District has received applications from this facility as shown in the following table. These applications are submitted under the District's local permitting program and typically are associated with a corresponding Title V application to implement the same change to the Title V permit once the modified local permit is issued (see appendix A of the permit).

Application History for facility since most recent renewal (July 14, 2014)				
Application Number	**Affected Permit to Operate(s)**	**Description/Related Title V Application**	**Affected Emission Units**	**Outcome**
APCD2016-APP-004689	APCD2006-PTO-950731	Application to landfill gas to energy combustion permit.	LFG Combustion permit.	Approved
APCD2022-RRP-990018	APCD2006-PTO-950731, APCD2013-PTO-001632, APCD2013-PTO-001633	California Hot Spots Program – Risk Reduction Plan to reduce toxic emissions based on emissions that occurred in 2018. (Note: Does not affect federally enforceable requirements)	Entire facility.	Approved

3.0 Facility Description

Permit Number	Equipment Description
APCD2006-PTO-950731	"Electrical generation plant consisting of four engine-generation sets, each formed by two identical engines driving a generator: Mfr: Caterpillar

	engines, Model G3516SITA, each engine rated at 1138 BHP, equipped with turbocharger, lean burn, air/fuel ratio controller, fueled with landfill gas and digester gas, with natural gas as supplemental fuel. The four engine-generator sets are identified by the following serial numbers: Engine 1: 4EK01636, Engine 2: 4EK01647, Generator: MM00509 at 1600 kW; Engine 3: 4EK00795, Engine 4: 4EK01194, Generator: 12389-02 at 1900 kW; Engine 5: 4EK01196, Engine 6: 4EKO1195, Generator: 12389-03 at 1900 KW; Engine 7: 4EK01192, Engine 8: 4EK01193, Generator: 12321-05 at 1900 kW"
APCD2013-PTO-001632	Engine #1: Caterpillar, Model 3520, 2233 BHP, landfill gas fired, lean burn, turbocharged, aftercooled, S/N GZJ00529; with an air/fuel ratio controller.
APCD2013-PTO-001633	Engine #2: Caterpillar, Model 3520, 2233 BHP, landfill gas fired, lean burn, turbocharged, aftercooled, S/N GZJ00528; with an air/fuel ratio controller.

4.0 Compliance History

Below is a summary of compliance actions that have occurred at the site since the most recent Title V application. There are no open/ongoing compliance actions at this facility:

APCD2014-NOV-000219 and APCD2014-NOV-000238 were issued March 26, 2014 for failing to provide to the APCD all information listed on records request dated 3/20/14 relating to engine maintenance & repair for calendar year 2013 and year-to-date 2014.

APCD2015-NOV-000184 was issued March 27, 2015 for failing to submit a true, accurate and complete annual compliance certification for calendar year 2014.

APCD2015-NOV-000196 was issued April 14, 2015 for a landfill gas leak that exceeded 1375 ppmv measured as methane.

APCD2015-NOV-000583 was issued October 13, 2015 for failing to submit the semi-annual compliance report pursuant to 40 CFR Part 63, Subpart ZZZZ for the January 1 through June 30, 2015 reporting period.

APCD2021-NOV-000524 was issued August 16, 2021 for methane leaks near the engine blocks utilizing landfill or digester gas that indicated the equipment was not in good operating condition.

APCD2022-NOV-000198 was issued March 24, 2022 for methane leaks near the engine piping of two engines, as well as gas flow meter and flow rate recording equipment being out of calibration at the time of inspection.

APCD2022-NOV-000914 was issued November 10, 2022 for measured amounts of methane in excess of 500 ppmv detected in piping leading to the cogeneration engines.

APCD2023-NOV-000273 was issued March 22, 2023 for failing to submit a revised Risk Reduction and Audit Plan within 60 days of receipt of notification from SDAPCD that the original plan was incomplete or unapprovable.

APCD2023-NOV-000469 and APCD2023-NOV-000656 were issued June 2, 2023 for failing to conduct quarterly NO_x and CO monitoring as well as not inspecting, calibrating or replacing O_2 sensors.

5.0 Title V Applicability and Acid Rain

The Title V regulation applies to any stationary source that is a major stationary source as defined in Rule 1401(c)(26) or is subject to the acid rain provisions of Title IV of the federal Clean Air Act (CAA).

Minnesota Methane is a major source of HAP, NO_x, CO, and VOC according to the estimated potential to emit in section 6. Therefore, it is subject to Title V requirements.

6.0 Potential to Emit and Actual Emissions

The following table shows the actual and potential emissions for the facility that are used to establish the major source status for Title V. For all pollutants, emissions are below major source thresholds.

Title V Major Source Determination Tons per Year:				
Pollutant	Thresholds	Facility Actual Emissions	Facility Potential to Emit	Major Source
Highest Federal HAP	10	28.5	40.0	Yes
Sum of Federal HAPs	25	34.9	48.3	Yes
NOx	25	44.1	127.1	Yes
VOC	25	37.9	52.6	Yes
PM10	100	19.2	24.6	No
SOx	100	6.12	7.9	No
CO	100	221.8	383.8	Yes

Facility actual emissions based on 2024 emissions inventory.
NOx and CO potential to emit based on emission limits set by permit conditions and maximum engine rating.
SOx and PM potential to emit based on SDAPCD default emission factors and maximum fuel rate.
VOC potential to emit based on site-specific emission factors from source testing and maximum fuel rate.
HAP potential to emit based on SDAPCD default or site-specific emission factors from source testing or LFG analysis and maximum fuel rate. Emission calculation sheet identifies sources of emission factors.

7.0 40 CFR Part 64 CAM (Compliance Assurance Monitoring)

The emission units under this Title V permit are all combustion units and do not have any additional control device as defined in 40 CFR 64.1. Because the units do not use a control device to achieve compliance with any emissions limitation or standard, CAM does not apply according to the criteria set forth in 40 CFR 64.2(a).

8.0 Applicable Requirements

This section summarizes the major types of requirements for this facility. These types of requirements include facility-wide and permit specific applicable requirements. Additionally for each emission unit, the rule that results in the primary emission limitation is listed.

General Facility-wide Applicable Requirements

Regulation	Rule Citation	Title
SDCAPCD Reg. II	10(a) 10(b)	Permits Required – (a) Authority to Construct Permits Required – (b) Permit to Operate
SDCAPCD Reg. II	11	Exemptions
SDCAPCD Reg. II	19	Provision of Sampling & Testing Facilities
SDCAPCD Reg. II	19.3	Emission Information
SDCAPCD Reg. II	20	Standards for Granting Permits
SDCAPCD Reg. II	20.1	New Source Review
SDCAPCD Reg. II	20.3	New Source Review
SDCAPCD Reg. II	21	Permit Conditions
SDCAPCD Reg. II	24	Temporary Permit to Operate
SDCAPCD Reg. II	25	Appeals
SDCAPCD Reg. IV	60	Circumvention
SDCAPCD Reg. V	98*	Breakdown Conditions: Emergency Variance
SDCAPCD Reg. VI	101	Burning Control
SDCAPCD Reg. VIII	131	Stationary Source Curtailment Plan
SDCAPCD Reg. VIII	134	Source Inspection
40 CFR Part 82	Subpart F	Servicing of Other Air Conditioners

Facility-wide Prohibitory Requirements

Regulation	Rule Citation	Title
SDCAPCD Reg. IV	50	Visible Emissions
SDCAPCD Reg. IV	51	Nuisance
SDCAPCD Reg. IV	52	Particulate Matter
SDCAPCD Reg. IV	53	Specific Air Contaminants
SDCAPCD Reg. IV	54	Dust and Fumes
SDCAPCD Reg. IV	62	Sulfur Content of Fuels

SDCAPCD Reg. IV	67.0.1	Architectural Coatings
SDCAPCD Reg. IV	67.17	Storage of Materials Containing VOC
SDCAPCD Reg. IV	67.6	Solvent Cleaning Operation
SDCAPCD Reg. IV	68	Fuel Burning Equipment - NOx
SDCAPCD Reg. X	40 CFR 60 Subpart XXX, JJJJ****	NSPS
SDCAPCD Reg. XI	40 CFR 63 Subpart AAAA, ZZZZ****	NESHAP
SDCAPCD Reg. XII	1200**	Toxic Air Contaminants – New Source Review
SDCAPCD Reg. XII	1206***	Asbestos Removal, Renovation, and Demolition
40 CFR Part 60	Subpart A****	NSPS – General Provisions
40 CFR Part 61	Subpart M***	NESHAP – Asbestos
40 CFR Part 63	Subpart A****	NESHAP – General Provisions

**Breakdowns/variances are not recognized by EPA and cannot grant relief from federal enforcement of requirements.*
***Not federally enforceable.*
****The District issued its own Asbestos Rule 1206 intended to be as stringent as Subpart M. The facility is subject to the most stringent requirements of either rule, which at the time of this report is ensured by compliance with rule 1206.*
*****The District has adopted these rules by reference; however, any changes made to these regulations at the federal level are not immediately adopted. In the event this creates a conflict between the District adopted and federal rules, the more stringent requirements will apply.*

Permit Specific Applicable Requirements:

SDAPCD Permit No.	**Title V Permit No.**	**Permit Description**	**Applicable Rules**
APCD2006-PTO-950731, APCD2013-PTO-001632, APCD2013-PTO-001633	APCD2008-TVP-971535	Landfill Gas and Digester gas Cogeneration Engines	SDAPCD Reg IV Rules 20.3, 69.4.1, 40 CFR 60 Subpart JJJJ, 40 CFR 63 Subpart ZZZZ, 40 CFR 60 Subpart XXX, 40 CFR 63 Subpart AAAA, California Landfill Methane Rule

Emission Limitations

Landfill Gas and Digester Gas Cogeneration Engines	
Pollutant	Primary Limiting Regulations*
NOx	Rule 20.3, Rule 69.3.1, Rule 69.4.1
SO2	Rule 20.3
VOC	Rule 20.3
CO	Rule 20.3 Rule 69.3.1, Rule 69.4.1
PM10	Rule 20.3
Toxic Pollutants	Rule 1200, Rule 1210

*There are certain operating scenarios where a different rule may be the most stringent limitation.

Regulatory analysis for landfills in California.

The engines at this facility combust landfill gas which originates from an MSW landfill subject to the requirements of 40 CFR 60 Subpart XXX and 40 CFR 63 AAAA, as well as the California Landfill Methane Regulation (LMR). This regulatory analysis will focus on requirements that apply to the LFG that is treated and combusted at this facility. The MSW landfill operates under a separate Title V permit and is responsible for meeting all applicable requirements for generated LFG that is not directed to this facility.

At this facility, LFG from the MSW landfill is routed through a treatment system, which compresses, cools, and filters the gas. Treatment in this manner constitutes treatment pursuant to 40 CFR 63.1959(b)(2)(iii)(C) and 40 CFR 60.762(b)(2)(iii)(C). Therefore, the engines themselves are not considered control devices and are not subject to the requirements of 40 CFR 63.1959(b)(2)(iii)(B) and 40 CFR 60.762(b)(2)(iii)(B) or any additional monitoring requirements under the NESHAP or NSPS. However, the treatment system that is operated by this facility must meet any applicable requirements under these regulations. This aligns with several applicability determinations made by the EPA.

The following section outlines requirements applicable to the LFG treatment system operated at this facility:

40 CFR 63 Subpart AAAA

Section 63.1959(b)(2)(iii) requires all collected gas to be routed to a control system that complies with the requirements in paragraph (A), (B), or (C), of this section. Paragraph (C) allows for the collected gas to be routed to a treatment system that processes the collected gas for subsequent sale or beneficial use such as fuel for combustion … If the treated landfill gas cannot be routed for subsequent sale or beneficial use, then the treated landfill gas must be controlled according to either paragraph (A) or (B) of this section. This facility does not receive collected gas when the engines and/or treatment system are offline. In this scenario, the MSW landfill flares the gas in accordance with paragraph (A) or (B). Paragraph (D) of this section states that all emissions from any atmospheric vent from the gas treatment system are subject to the requirements of paragraph (A) or (B). These requirements are added to permit conditions.

Section 63.1961(g) provides monitoring requirements for owners or operators demonstrating compliance with Section 63.1959(b)(2)(iii)(C) using a landfill gas treatment system. These requirements are added to permit conditions.

63.1981(h) includes semi-annual reporting requirements.

63.1983(b)(5) provides recordkeeping requirements for owners or operators subject to the provisions of this subpart seeking to demonstrate compliance with Section 63.1959(b)(2)(iii)(C) through use of a landfill gas treatment system, including a site-specific treatment monitoring plan. These requirements have been added to permit conditions.

40 CFR 60 Subpart XXX

Section 60.762(b)(2)(iii) has identical requirements to those outlined in Section 63.1959(b)(2)(iii) (see above). This section has been added as a reference to relevant permit conditions.

Section 60.766(g) provides identical monitoring requirements to those listed in Section 63.1961(g) above. This section has been added as a reference to relevant permit conditions.

Section 60.767(g) provides annual reporting requirements.

60.768(b)(5) provides identical requirements to those listed in Section 63.1983(b)(5) above. This section has been added as a reference to relevant permit conditions.

40 CFR 63 Subpart ZZZZ

63.6590(b)(2) states that new or reconstructed stationary RICE with a rating >500 bhp located at a major source of HAPs which combusts landfill or digester gas equivalent to 10% or more of the gross heat input on an annual basis must meet the requirements of Sections 63.6625(c), 63.6650(g), and 63.6655(c). These stationary RICE do not have to meet the emission limitations and operating limitations of this subpart.

63.6590(b)(3)(v) states that existing stationary RICE with a rating >500 bhp located at a major source of HAPs that combust landfill gas or digester gas equivalent to 10% or more of the gross heat input on an annual basis do not have to meet the requirements of this subpart.

For major HAP sources, a RICE engine is considered “existing” if construction commenced before December 2002, and “new” if construction commenced after this date.

The engines operating under permit APCD2006-PTO-950731were installed in 1998 and have not been modified or reconstructed, so these engines are considered existing. The other two engines are considered new and are subject to the applicable requirements of this subpart. However, these engines combust only treated landfill gas, so additional monitoring to demonstrate that the percentage of heat input from landfill gas is equivalent to 10% or more is not necessary. A condition will be added to these permits to specify that the engines can only combust landfill gas with NESHAP ZZZZ as its basis.

40 CFR 60 Subpart JJJJ

Owners and operators of stationary SI landfill gas ICE engines with a max engine power greater than 25 HP that are modified or reconstructed after June 2006 must comply with the emission standards specified in paragraph 60.4233(e) for stationary landfill gas engines. Engines with a maximum engine power greater than or equal to 500 HP (except lean burn engines greater than or equal to 500 HP and less than 1350 HP) and a date of manufacture prior to July 2007 must comply with emission standards in 60.4233(e). Lean burn engines greater than or equal to 500 HP and less than 1350 HP with a manufacture date prior to January 2008 must comply with emission standards in 60.4233(e).

The engines operating under permit APCD2006-PTO-950731were installed in 1998 and have not been modified or reconstructed, so are not subject to the requirements of 40 CFR 60 Subpart JJJJ. The two other engines at this facility have the appropriate emission limits as permit conditions. Reference to 40 CFR 60.4233(f)(5) has been added.

9.0 Permit Shield

Minnesota Methane did not request to incorporate any permit shield with this action.

10.0 Streamlining

Minnesota Methane did not request to streamline any permit requirements.

11.0 Updates to the Title V Permit Incorporated into this Action

The following changes are being made to the emission unit specific permits as indicated below.

General permit updates:

Permit conditions have been updated with appropriate rule references where applicable.

Conditions added related to MSW landfill NSPS/NESHAP:

The landfill gas treatment system and combustion equipment shall be in operation at all times when collected gas is routed to the system. [40 CFR 63.1958(f); 40 CFR60.763(f)]

Landfill gas shall be routed to a treatment system that processes the collected gas for use as fuel for combustion. Venting treated landfill gas to the ambient air is not allowed. In the event that the engines are inoperable, no landfill gas shall be routed to the treatment system. [40 CFR 63.1959(b)(2)(iii)(C); 40 CFR 60.762(b)(2)(iii)]

The owner or operator shall calibrate, maintain, and operate according the manufacturer's specifications a device that records flow to the treatment system at least every 15 minutes. The owner or operator shall maintain and operate all monitoring systems associated with the treatment system in accordance with the site-specific monitoring plan required in section 63.1983(b)(5)(ii). These requirements do not apply during monitoring system malfunctions, repairs associated with monitoring system malfunctions, and required monitoring system quality assurance or quality control activities, as outlined in 40 CFR 63.1961(h).

The bypass line valve shall be secured in the closed position with a car-seal or a lock-and-key type configuration. A visual inspection of the seal or closure mechanism must be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line. [40 CFR 63.1961(g); 40 CFR 60.766(g)].

The owner or operator shall keep up-to-date, readily accessible records for the following:

(a) gas treatment system vendor specifications;

(b) records of the flow of landfill gas to, and bypass of, the treatment system;

(c) site-specific treatment monitoring plan, including:

(i) monitoring records of parameters identified in the treatment system monitoring plan and that ensure the treatment system is operating properly, including records of filtration, de-watering, and compression parameters that ensure the treatment system is operating properly;

(ii) monitoring methods, frequencies, and operating ranges for each monitored operating parameter based on manufacturer's recommendations or engineering analysis;

(iii) documentation of the monitoring methods and ranges, along with justification for their use;

(iv) list of responsible staff (by job title) for data collection;

(v) processes and methods used to collect the necessary data; and

(vi) description of the procedures and methods that are used for quality assurance, maintenance, and repair of all continuous monitoring systems.

[40 CFR 63.1983(b)(5); 40 CFR60.768(b)(5)].

Conditions added for NESHAP ZZZZ:

Added to permits 001632 and 001633:

- This engine shall combust treated landfill gas only. [40 CFR 63.6590(b)(2)]

<u>Updates to permits since previous renewal incorporated into this Title V Renewal permit:</u>

<u>California Landfill Methane Regulation</u>

These permits were revised in 2016 to include applicable requirements of the California Landfill Methane Regulation. Under the LMR, these engines are considered control devices and the gas ducting leading to the engines are considered collection devices. Applicable requirements added to the permits include: no leaks of landfill gas from the collection system; methane destruction efficiency; monitoring for leaks; and recordkeeping and record retention requirements. These requirements are identified in permit conditions with appropriate references to Title 17 of the CCR.

<u>SDAPCD Rule 69.4.1 – Stationary Reciprocating Internal Combustion Engines</u>

Revisions to SDAPCD rule 69.4.1 were adopted and effective in July 2020. Changes to this rule are not SIP-approved, so they are not federally enforceable. New requirements associated with these revisions were incorporated into these permits and are outlined here. These requirements include: use of a portable analyzer to take emission readings to verify compliance with rule emission standards in calendar quarters in which a source test is not preformed for prime gas-fired engines; emission limits for CO and NOx for existing lean burn engines; revised annual maintenance requirements; and records of annual maintenance.

<u>SDAPCD Rule 1210 – Toxic Air Contaminant Health Risks – Public Notification and Risk Reduction</u>

These permits were revised in 2024 with requirements under SDAPCD Rule 1210. Facility health risks in 2018 were above the thresholds for public notification and risk reduction under Rule 1210. Various permit conditions were added for implementation of the facility's risk reduction plan, including requirements to apply for and install control equipment, source testing to demonstrate control efficiency, and requirements to reduce health risk in accordance with requirements of Rule 1210.

12.0 Permit Process-Public Notification and Notice to EPA and Affected States

Before issuing the final permit, The District will provide the opportunity for review by EPA and affected states and a public notice period. Notice will be provided to the EPA electronically through the EPS and will be sent electronically to affected states and tribes. The public notice and associated documents will be provided on our website and the public notice will be published in a newspaper. The public notice contains information on how to petition EPA for review of a proposed action.

If no comments or objections are received, the District intends to promptly issue the Title V permit after conclusion of the review period. If comments are received the District will review and respond to the comments as necessary. If comments identify issues which require modification to the permit, revisions will be made and the permit either issued if the changes do not require re-review by EPA or the public, or will be re-noticed if changes are made which do require review.

13.0 Recommendations

The facility is expected to comply with all applicable requirements including those cited in the current District permit as well as those under District Rule 1401 and 40 CFR Part 70. Therefore, the recommendation of this report is for the subject renewal Title V permit to be issued following public notice, EPA review, and response to any comments.

14.0 Attachments

The following are attached:

- Application Package
- Draft Permit
- Public Notice
- Emissions Calculations