

**STATEMENT OF BASIS  
Title V Permit Renewal**

**Facility Name:** SD Public Works San Marcos Landfill

**Application Number:** APCD2018-APP-005299

**Title V Permit Number:** APCD2009-TVP-961005

**Facility ID:** APCD1990-SITE-03325


**Equipment Address:** San Marcos Landfill, San Marcos, CA 92069

**Facility Contact:** Jason Forga

**Contact Phone:** (858) 495-5470

**Contact Email:** Jason.Forga@sdcounty.ca.gov

**Permit Engineer:** Maria Galvez

**Date:** 7/11/2024  
 Recoverable Signature

**X** Jim Swaney  

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Jim Swaney  
Senior Engineer  
Signed by: 4f6a3c69-5263-42b7-937d-4b3b524063e0

**Senior Engineer:**

**1.0 Type of Action and Summary of Changes**

The applicant requests issuance of a renewal Title V permit for San Marcos Landfill (Title V Permit APCD2009-TVP-961005) in application number APCD2018-APP-005229. Municipal solid waste landfills with a design capacity >2.5 million mega-grams that are subject to 40 CFR 63 Subpart AAAA and 40 CFR 62 Subpart OOO require Title V operating permits. For this reason, the facility is subject to Title V permitting.

Since the last renewal Title V permit was issued, there have been no Title V applications submitted.

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

The renewal application was received on January 22, 2018. The Title V permit expired on January 30, 2019. This renewal application was submitted at least 12 months but not more than 18 months prior to permit expiration, 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 since the previous renewal.

The following table lists applications at this facility to modify the Title V permit:

<b>Title V Application History Since Initial Title V Permit</b>				
<b>Application Number</b>	<b>Title V Permit Number</b>	<b>Application Description</b>	<b>Equipment</b>	<b>Approved?</b>
APCD1997-APP-961005	APCD2009-TVP-961005	Initial Title V application	Landfill	Yes
APCD2013-APP-002582	APCD2009-TVP-961005	Latest Title V Renewal	Landfill	Yes
APCD2018-APP-005299	APCD2009-TVP-961005	Current Title V Renewal	Landfill	Current Renewal

Since the most recent Title V 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).

<b>Application History for facility since most recent renewal</b>				
<b>Application Number</b>	<b>Affected Permit to Operate(s)</b>	<b>Description</b>	<b>Affected Emission Units</b>	<b>Outcome</b>
APCD2014-APP-003718	APCD2009-PTO-900245	Addition of condensate injection system to secondary flare	Secondary flare	Approved*

\*There was no Title V application associated with this permit action. Any changes to the Title V permit due to this District permit modification will be reviewed and incorporated through this Title V renewal.

Per evaluation for application APCD2014-APP-003718, there is no actual change in emissions due to this modification. (see below). The only change to the permit from this application was addition of an annual condensate injection limit of 500,000 gallons per year, which is included in the proposed renewal permit.

### 3.0 EMISSIONS

#### 3.1 Emission Estimate Summary;

Maximum Potential to Emit  
 VOC landfill gas components; < 10 lbs VOC/yr < 0.002 lbs VOC/hr

#### Emission Estimate Assumptions -

- Worst case liquid injection rate; Assumed 2 gpm per existing permit limit
- Worst case equipment operation; Assumed 500,000 gallons/year
- Worst case average VOC content; Assumed < 0.01% (per historical results)
- Max. VOC injection rate; 0.1 lbs VOC/hr
- Minimum expected VOC destruction efficiency; 98+%
- Maximum VOC emission rate; < 0.002 lbs VOC/hr (below detection limits)
- Source testing requirement; < 10 lbs VOC/yr
- Stack testing not necessary / required

3.2 Emission Calculations  $-(2)(60)(8.37)(.0001)(1-0.98) = 0.002 \text{ lbs VOC/hr}$   
 $-((500,000 \text{ gal/yr})/(120 \text{ gal/hr}))(0.003 \text{ lbs/gal}) = < 10 \text{ lbs VOC/yr}$

Note: The actual annual VOC emission increase = 0 as both flares must still comply with all existing regulatory emission limits (98+% VOC destruction and/or < 20 ppmv VOC @ 3% oxygen) regardless of condensate injection rates. The presence of additional condensate injection equipment will not increase the volume of condensate generated or treated on site.

### 3.0 Facility Description

San Marcos Landfill is an inactive municipal non-hazardous waste landfill that includes landfill gas flaring. The landfill contains approximately 12.9 million tons of refuse. The Facility has an LFG management system constructed and operated in accordance with state and local regulations including those of the San Diego Air Pollution Control District (SDAPCD). LFG is collected in a network of extraction wells and pipes serving two separate systems. One system serves a thermal flare system operated by the Facility under its permit with the SDAPCD; the other serves an energy recovery facility that is operated by a third party under separate permits. The LFG collection system feeds two enclosed flares with a combined LFG throughput of 5500 cfm.

The facility has the following active permits:

Permit Number	Equipment Description
APCD2009-PTO-900245	An inactive non-hazardous solid waste municipal landfill containing approximately 12.9 million tons of refuse on 200 acres equipped with a landfill gas collection and control system consisting of multiple gas collection wells, multiple off-site gas migration probes, header piping, blowers, and two enclosed ground flares. Both the primary flare (4500 cfm LFG capacity) and secondary flare (1000 cfm LFG capacity) are each equipped with flame arrestors, optical flame detectors, automatic shutoff valves, auxiliary fuel, LFG flow meters, stack temperature probes, inline LFG oxygen analyzers, and condensate injection systems as well as all necessary piping, valves, sampling ports, fittings, instrumentation, controls, and support equipment.

#### 4.0 Title V Applicability

##### Regulatory Changes Since Last Renewal:

On January 9, 2020, the EPA finalized a rule partially approving and partially disapproving California Air Resources Board's (CARB) submittal of California Landfill Methane Regulation (CA LMR) as a State Plan to implement EPA's Municipal Solid Waste (MSW) Landfills Emission Guidelines (EG) updated in 2016 (40 CFR part 60 subpart Cf). CA LMR was partially disapproved as a State Plan because it did not meet the operational, monitoring, recordkeeping, and reporting requirements for the interior wellhead temperature and/or nitrogen or oxygen concentration included in 40 CFR part 60 subpart Cf. The following elements from subpart Cf were deemed missing from the CARB's submittal: 40 CFR 60.34f(c), 60.36f(a)(5), 60.37f(a)(2) and (3), 60.38f(k), and 60.39f(e)(2) and (5).

On May 21, 2021, EPA promulgated a Federal Plan (40 CFR part 62 subpart OOO) to implement the MSW Landfill Emission Guidelines (subpart Cf) for existing landfills located in states and Indian country where state plans or tribal plans were not in effect. The Federal Plan became effective June 21, 2021, and codified provisions corresponding to the plan elements that were missing from the CA LMR noted above.

Thus, landfills in California that commenced construction on or before July 17, 2014, and have not been modified or reconstructed after July 17, 2014 are subject to CA LMR and the following elements codified in the MSW Landfills Federal Plan (subpart OOO), which correspond to the missing elements of the CA LMR: 40 CFR 62.16716(c), 62.16720(a)(4), 62.16722(a)(2) and (3), 62.16724(k), and 62.16726(e)(2) and (5).

With the partial approval and partial disapproval of the state submittal consisting of the CA LMR and the seven provisions codified in subpart OOO for California MSW landfills that implements NSPS subpart Cf, provisions in NSPS subpart WWW no longer apply to landfills in California.

##### Title V Applicability:

As shown in Section 6, below, San Marcos Landfill is a major source of NO<sub>x</sub> and HAP emissions, and has a design capacity of approximately 12.9 million tons and is subject to both National Emission Standards for Hazardous Air Pollutants (NESHAP) at 40 CFR 63 Subpart AAAA and New Source Performance Standards (NSPS) at 40 CFR 62 part Cf. Therefore, since the facility has a design capacity over 2.5 million megagrams and is a major source, the facility is subject to the Title V operating permit program.

##### Landfill Rules: Federal NSPS and NESHAPs:

As mentioned above, the landfill is subject to the requirements of the National Emission Standards for Hazardous Air Pollutants (NESHAP) at 40 CFR 63 Subpart AAAA, the California Landfill Methane Regulation, and elements of New Source Performance Standards (NSPS) at 40 CFR 62 subpart OOO. The permittee has designed, installed, and now operates a landfill gas collection and control system (CCS) in conformance with these provisions.

40 CFR 62.16716(c) – *Operational standards for collection and control systems*: San Marcos landfill has a gas control system, hence 40 CFR 62.16716(c) applies and is enforced via condition 2.

40 CFR 62.16720(a)(4) – *Compliance Provisions*: 40 CFR 62.16720 contains information pertaining to standards and methods used to determine operation compliance for the gas collection system and is enforced via condition 82.

40 CFR 62.16722(a)(2) and (3) – *Monitoring of operations*: 40 CFR 602.16722 contains monitoring requirements for the gas collection system and the enclosed combustion devices (flares) and is enforced via condition 7.

40 CFR 62.16724(k) – *Reporting Guidelines*: 40 CFR 62.16724 contains information on reports the landfill operator is required to submit and is enforced via conditions 82, 83, and 84.

40 CFR 62.16726(e)(2) and (5) – *Recordkeeping Requirements*: 40 CFR 62.16726 contains recordkeeping requirements for the landfill, the gas collection system, and the enclosed combustion devices (flares), and is enforced via conditions 81, 82, 85, and 86.

40 CFR 63.1930(a) and (b) – *What is the purpose of this subpart?* 63.1930 establishes national emission standards for hazardous air pollutants for existing and new MSW Landfills.

40 CFR 63.1935 – *Am I subject to this subpart?* 63.1935 defines criteria by which landfills are required to follow requirements in this subpart.

40 CFR 63.1957 – *Requirements for gas collection and control system installation and removal*: 63.1957 contains requirements for the operation of the gas collection system.

40 CFR 63.1958 – *Operational Standards for Collection and Control Systems*: 63.1958 contains compliance standards for the operator of the gas collection system, and is enforced via conditions 3, 7, 9, 15, 24, and 32.

#### 17 CCR Subarticle 6 (AB 32)

California's Landfill Methane Rule (CA LMR), as it pertains to landfills, addresses methane emissions and its provisions borrow extensively from the federal rules discussed above. This rule is commonly referred to as AB 32 – the legislative assembly bill that preceded its development. Because of the distinctions between this rule and the aforementioned federal landfill rules, conditions for Subarticle 6 are listed almost entirely separate in the operating permit. In 2020, EPA partially approved and partially disapproved CARB's state plan submittal to implement the Emission Guidelines (40 CFR part 60 subpart Cf) via CA LMR. The state plan was partially approved, however EPA concluded did not meet the operational, monitoring, recordkeeping, reporting requirements for the interior wellhead temperature and/or nitrogen or oxygen concentration included in 40 CFR part 60 subpart Cf. As mentioned above, the following seven provisions from subpart OOO were codified as they were deemed missing from the CA LMR: 40 CFR 62.16716(c), 62.16720(a)(4), 62.16722(a)(2) and (3), 62.16724(k), and 62.16726(e)(2) and (5). Note that because the CA LMR was partially approved to comply with provisions in Cf, it is federally enforceable.

17 CCR 95461 – *Applicability*: This section applies to MSW landfills that have received solid waste after January 1, 1977, and is referenced in condition 40.

17 CCR 95464 – *Gas Collection and Control System Requirements*: This section establishes requirements for the design plan and installation of gas collection systems, gas collection and control system requirements for flares and other devices, source test requirements, and requirements during repair and temporary shutdown of gas collection systems. It is enforced in permit conditions 5, 54, 55, 57, 59, 60, 61, 62, 72, and 73.

17 CCR 95465 – *Surface Methane Emission Standards*: This section provides limits on surface methane concentration as it relates to instantaneous and integrated surface emissions monitoring, and is enforced by conditions 55, 56, 65, 66, and 70.

17 CCR 95466 – *Construction Activities*: This section provides exceptions to compliance with 17 CCR 95465 for areas of the landfill that landfill cover material is not in place, and is enforced by conditions 55, 56, 60, and 73.

17 CCR 95468 – *Alternative Compliance Options*: This section provides alternative options for the owner or operator of an MSW landfill to the requirements of sections 95464, 95469, and 95471. It is enforced via condition 72.

17 CCR 95469 – *Monitoring Requirements*: This section outlines procedures and requirements for surface emissions monitoring, gas control system equipment monitoring, and wellhead monitoring. It is enforced via conditions 61, 62, 63, 64, 65, 66, 70, 71, 72, and 73.

17 CCR 95470 – *Recordkeeping and Reporting Requirements*: This section outlines recordkeeping and reporting requirements and is enforced in conditions 73, 74, 75, 76, 77, 78, and 79.

17 CCR 95475 – *Definitions*: This section provides definitions pertaining to this subarticle and is referenced in condition 54.

17 CCR 95476 – *Severability*: This section describes the severability of each part of this subarticle and is referenced in condition 80.

## **5.0 Compliance History**

Below is a summary of compliance actions that have occurred at the site since the most recent Title V renewal. There are no open or ongoing violations at the facility at the time of this review. A notice of violation was issued in 2014 for leakage of condensate liquid. A notice of violation was issued in 2016 for failing to maintain methane levels at landfill surface < 500 ppm.

## **6.0 Potential to Emit and Actual Emissions**

The following table shows the actual and potential emissions for the facility. The facility is major source of NO<sub>x</sub> and HAP.

Potential to Emit – Entire Facility Tons per Year				
Pollutant	Thresholds	*Facility Actual Emissions	**Potential to Emit	Major Source
Highest Federal HAP	10	0.59	0.85	No
Sum of Federal HAPs	25	1.84	2.1	No
NO <sub>x</sub>	25	3.2	4.6	No
VOC	25	6.7	6.8	No
PM <sub>10</sub>	100	0.79	1.1	No
SO <sub>x</sub>	100	0.58	0.8	No
CO	100	0.62	0.7	No

Potential to Emit – Flares Only Tons per Year				
Pollutant	Thresholds	*Facility Actual Emissions	**Potential to Emit	Major Source
Highest Federal HAP	10	0.59	0.85	Yes
Sum of Federal HAPs	25	0.64	0.92	No
NO <sub>x</sub>	25	3.16	4.6	Yes
VOC	25	0.21	0.30	No
PM <sub>10</sub>	100	0.79	1.14	No
SO <sub>x</sub>	100	0.58	0.84	No
CO	100	0.12	0.17	No

\*The actual emissions are from the District’s Emission Inventory for 2022 (approved April, 2024).

\*\*The PTE for the flares is based on maximum LFG throughput in the last 10 years, since PTE of the flares is limited by the amount of gas produced by the landfill, and default District emission factors.

\*\*The PTE for the landfill is based on actual emissions from the District’s Emission Inventory for 2022. Because this is a closed landfill, the emissions for any future year should only ever decrease from the previous year’s actual emissions.

## 7.0 40 CFR Part 64 CAM (Compliance Assurance Monitoring)

Compliance Assurance Monitoring (CAM) applicability was considered for this review pursuant to 40 CFR Part 64. The landfill itself is a major source of VOC and uses the gas collection

system as a control device. The gas collection system operates according to emission standards pursuant to AAAA, consequently pursuant to 40 CFR Part 64.2(b)(1)(i) CAM does not apply.

## 8.0 Applicable Requirements

### General Permit Program Applicable Requirements

<b>Regulation</b>	<b>Rule Citation</b>	<b>Title</b>
SDCAPCD Reg. II	10(a)	Permits Required - (a) Authority to Construct
SDCAPCD Reg. II	10(b)	Permits Required- (b) Permit to Operate
SDCAPCD Reg. II	19	Provision of Sampling & Testing Facilities
SDCAPCD Reg. II	19.3	Emission Information
SDCAPCD Reg. II	NSR	New Source Review
SDCAPCD Reg. II	PSD	Prevention of Significant Deterioration
SDCAPCD Reg. II	20.1	New Source Review (General)
SDCAPCD Reg. II	20.2	New Source Review (Non-major Stationary Sources)
SDCAPCD Reg. II	21	Permit Conditions
SDCAPCD Reg. IV	59*	Control of Waste Disposal – Site Emissions
SDCAPCD Reg. IV	60	Circumvention
SDCAPCD Reg. IV	67	Architectural Coatings
SDCAPCD Reg. IV	68	Fuel Burning Equipment - NO <sub>x</sub>
SDCAPCD Reg. IV	71	Abrasive Blasting
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	132	Traffic Abatement Plan

\*The facility is subject to 59.1 instead, as a municipal solid waste landfill

### Facility-wide/Other Prohibitory and Miscellaneous Requirements

<b>Regulation</b>	<b>Rule Citation</b>	<b>Title</b>
SDCAPCD Reg. II	19.2	Continuous Emission Monitoring Systems
SDCAPCD Reg. IV	50	Visible Emissions
SDCAPCD Reg. IV	51	Nuisance
SDCAPCD Reg. IV	52	Particulate Matter
SDCAPCD Reg. IV	53	Specific Contaminants
SDCAPCD Reg. IV	59.1	Municipal Solid Waste Landfills
SDCAPCD Reg. IV	62	Sulfur Content of Fuels



SDCAPCD Reg. IV	67.0.1	Architectural Coatings
SDCAPCD Reg. IV	67.17	Storage of Organic Materials Containing VOC
SDCAPCD Reg. XII	1200	Toxic Air Contaminants – New Source Review
SDCAPCD Reg. XII	1210	Toxic Air Contaminants – Public Notification and Risk Reduction
SDCAPCD Reg. XII	1206*	Asbestos Removal, Renovation, and Demolition
40 CFR Part 60	Subpart A	NSPS General Provisions
40 CFR Part 60	Subpart Cf	NSPS - Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills
40 CFR Part 61	Subpart M*	NESHAP - Asbestos
40 CFR Part 62	Subpart OOO**	NSPS – Municipal Solid Waste Landfills
40 CFR Part 63	Subpart A	NESHAP General Provisions
40 CFR Part 63	Subpart AAAA	NESHAP - Municipal Solid Waste Landfills
California Landfill Methane Rule	CCR §§ 95460 to 95476	Methane Emissions from Municipal Solid Waste Landfills

\* 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.

\*\* As mentioned above, the following seven provisions from subpart OOO were codified as they were deemed missing from the California Landfill Methane Rule: 40 CFR 62.16716(c), 62.16720(a)(4), 62.16722(a)(2) and (3), 62.16724(k), and 62.16726(e)(2) and (5).

Permit Specific Applicable Requirements:

SDAPCD Permit No.	Permit Description	Applicable Rules
APCD2009-PTO-971112	Non-hazardous municipal waste landfill with two flares	SDAPCD Reg. IV Rules 40, 50, 51,52, 53, 59.1; CA LMR; 40 CFR 63-Subpart AAAA

Primary Limiting Regulations: Landfill

Non-Hazardous Municipal Waste Landfill	
Pollutant	Primary Limiting Regulations
NO <sub>x</sub>	Rule 20.2; 40 CFR 63 Subpart AAAA, 40 CFR 62 Subpart OOO, 40 CFR Subpart Cf,
SO <sub>2</sub>	Rules 20.2, 53, 62
VOC	Rule 20.2; 40 CFR 63 Subpart AAAA, 40 CFR 62 Subpart OOO, 40 CFR Subpart Cf
CO	Rule 20.2
PM <sub>10</sub>	Rules 20.2, 53

Toxic Pollutants	40 CFR 63 Subpart AAAA
Federal HAPs	40 CFR 63 Subpart AAAA

**9.0 Updates to the Title V Permit Incorporated into this Action**

This action, a renewal of the Title V permit, did not result in any changes in emissions, but rules tables in the Title V permit were revised for clarity and accuracy, as well as changes to permit conditions that were previously discussed.

**10.0 Permit Streamlining**

The facility does not request Multiple Applicable Requirements Streamlining.

**11.0 Permit Shields**

The facility does not request any additional Permit Shields.

**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, affected states and bands of Indians through a public notice period and an EPA review period. Notice will be provided to the EPA electronically through the EPS and will be sent electronically to affected states and bands of Indians. The public notice and associated documents will be provided on the District website, and the public notice will be published in a newspaper.

**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 proposed 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
- Title V Permit
- Public Notice