777 12th Street 3rd Floor Sacramento, CA 95814

TITLE V FEDERAL OPERATING PERMIT
AND
SMAQMD RULE 201 PERMIT TO OPERATE

TITLE V PERMIT NO:	TV2016-08-01
ISSUED TO:	28th Street Landfill Recycling & Solid Waste Division Department of Public Works City of Sacramento
FACILITY LOCATION:	20 28th Street Sacramento, CA
PERMIT ISSUED:	May 20, 2019
PERMIT LAST AMENDED:	March 13, 2012
PERMIT EXPIRES:	May 20, 2024
RESPONSIBLE OFFICIAL:	Hector Barron, Director Department of Public Works (916) 808-2669
CONTACT PERSON:	John Olesen, Senior Landfill Engineering Technician Solid Waste Division Department of Public Works (916) 264-7132 John Febbo, Integrated Waste Planning Superintendent City of Sacramento (916) 808-3797 Chris Thomas, Program Analyst City of Sacramento (916) 808-4833
NATURE OF BUSINESS:	Municipal Solid Waste Landfill [SIC 4953]

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SMAQMD Air Pollution Control Officer

by: Felix Trujillo, Jr.
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Air Quality Engineer

TABLE OF CONTENTS

I. PERMIT SUMMARY

This permit may serve as a Permit to Operate pursuant to SMAQMD Rule 201 (General Permit Requirements) and SMAQMD Rule 207 (Title V - Federal Operating Permit Program). Requirements identified in the permit as non-federally enforceable are not enforceable by U.S. EPA or the public. However, they are enforceable by the SMAQMD.

The application for this air quality Permit to Operate was evaluated for compliance with SMAQMD, State of California and federal air quality rules and regulations. The following listed rules are those that were found to be applicable at the time of permit review, based on the information submitted with the Title V permit application.

Citation	Description	Rule Adoption Date	Federally Enforceable ?
SMAQMD Rule 101	General Provisions and Definitions	10-27-2011	Yes
SMAQMD Rule 102	Circumvention	11-29-1983	Yes
SMAQMD Rule 108	Minor Violation	10-01-1998	No
SMAQMD Rule 201	General Permit Requirements (SIP approved)	11-20-1984	Yes
SMAQMD Rule 201	General Permit Requirements (not SIP approved)	08-24-2006	No
SMAQMD Rule 202	New Source Review (SIP approved)	11-20-1984	Yes
SMAQMD Rule 202	New Source Review (not SIP approved - SIP approval of 11-20-1984 version withdrawn 08-19-2011)	08-23-2012	Yes (A)
SMAQMD Rule 203	Prevention of Significant Deterioration	01-27-2011	Yes
SMAQMD Rule 207	Title V - Federal Operating Permit Program (not SIP approved but rule is applicable as part of U.S. EPA approval of the SMAQMD Title V program)	07-28-2011	Yes
SMAQMD Rule 213	Federal Major Modifications (It is not a SIP approved rule, but the requirements within it are part of EPA's NSR reform and are thus federally applicable)	03-23-2006	No
SMAQMD Rule 214	Federal New Source Review	08-23-2012	Yes
SMAQMD Rule 217	Public Notice Requirements for Permits	08-23-2012	Yes

I. PERMIT SUMMARY (continued)

Citation	Description	Rule Adoption Date	Federally Enforceable ?
SMAQMD Rule 301	Permit Fees - Stationary Source (not SIP approved but Title V fees in rule applicable as part of U.S. EPA approval of the SMAQMD Title V program)	07-25-2013	Yes (Title V provisions only)
SMAQMD Rule 302	Hearing Board Fees	02-05-1998	No
SMAQMD Rule 306	Air Toxic Fees	05-23-2013	No
SMAQMD Rule 307	Clean Air Act Fees	09-26-2002	Yes
SMAQMD Rule 401	Ringelmann Chart	04-05-1983	Yes
SMAQMD Rule 402	Nuisance	08-03-1977	No
SMAQMD Rule 403	Fugitive Dust	11-29-1983	Yes
SMAQMD Rule 404	Particulate Matter	11-20-1984	Yes
SMAQMD Rule 406	Specific Contaminants	11-29-1983	Yes
SMAQMD Rule 420	Sulfur Content of Fuels	11-29-1983	Yes
SMAQMD Rule 442	Architectural Coatings (SIP approved)	09-05-1996	Yes
SMAQMD Rule 442	Architectural Coatings (not SIP approved)	09-24-2015	No
SMAQMD Rule 466	Solvent Cleaning	10-28-2010	Yes
SMAQMD Rule 601	Procedure Before the Hearing Board (not SIP approved)	02-05-1998	No
SMAQMD Rule 602	Breakdown Conditions: Emergency Variance	12-06-1978	No
SMAQMD Rule 801	New Source Performance Standards	05-24-2018	Yes
U.S. EPA New Source Performance Standards (NSPS)	Standards of Performance for Municipal Solid Waste Landfills [40 CFR 60 Subpart WWW (begin at 60.750)])	03-12-1996 (B)	Yes
U.S. EPA National Emission Standards for Hazardous Air Pollutants (NESHAP)	National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills [40 CFR 63 Subpart AAAA (begin at 63.1930)]	01-16-2003 (B)	Yes

I. PERMIT SUMMARY (continued)

Citation	Description	Rule Adoption Date	Federally Enforceable ?
40 CFR Part 68	Chemical Accident Prevention Provisions	04-09-2004 (B)	Yes
40 CFR Part 82 Subpart F	Protection of Stratospheric Ozone - Recycling and Emissions Reduction	08-11-2011 (B)	Yes

(A) As explained in the SOB.

(B) U.S. EPA promulgation date.

Future changes in prohibitory rules may establish more stringent requirements that may, at the SMAQMD level, supersede the conditions listed here. For Title V purposes however, the federally enforceable requirements are those found in the Title V permit. Federally enforceable provisions of the Title V permit do not change until the Title V permit is revised.

Title V Permit Background

Permit Action	Date Issued	Title V Permit No.
Initial Title V Federal Operating Permit	03-27-2002	TV1996-08-01
1st Minor Modification	02-03-2004	TV1996-08-02
1st Renewal Permit	03-27-2007	TV2006-08-01
1st Administrative Amendment	03-27-2010	TV2006-08-01A
2nd Renewal Permit	03-13-2012	TV2011-08-01

Current Permitting Action

This 3rd Permit Renewal will be assigned the following permit number: TV2016-08-01.

The City of Sacramento's 28th Street Landfill is requesting to renew the Title V federal operating permit for its facility which was issued on 03-13-2012. This permit renewal will also include an administrative permit mod (TV2016-08-01A) to add a new flare under Authority to Construct 25596. The flare has not been installed yet, so it will be listed as a future applicable requirement. The flare was processed under the District's enhanced new source review process.

II. FACILITY DESCRIPTION

The City of Sacramento's 28th Street Landfill is an inactive municipal solid waste landfill located at 28th and A streets in the City of Sacramento. The site is operated by the City of Sacramento Department of Utilities, Solid Waste Division. The landfill footprint, which is comprised of Waste Management Unit A (WMU-A) and Waste Management Unit B (WMU-B), is approximately 107 acres. The 28th Street Landfill began accepting waste into WMU-A in 1968 and completed filling WMU-A in 1986. The 28th Street Landfill began accepting waste into WMU-B in 1986 and completed filling WMU-B in 1994. The landfill stopped receiving waste in September 1994.

Decomposing waste encapsulated within the landfill produces a gas by-product that is primarily composed of methane, carbon dioxide and non-methane organic compounds (NMOC). Landfill gas (LFG) is primarily emitted through two sources. LFG can be emitted as fugitive gas through cover soils or through a landfill gas collection system.

The City of Sacramento operates the landfill gas collection system that serves the landfill's perimeter wells. The collected landfill gas from the perimeter wells used to be sent to Blue Diamond Almond Growers as fuel for their boiler and/or to one of two landfill gas flares on the landfill site for destruction. That is no longer the case. The Blue Diamond Almond Growers facility is no longer connected to the landfill gas collection system.

This city previously included two flares at the site that were installed in 1990 and 1997. Once served as a back up to the other. Due to the age of the flares and lower gas production at the site, the facility replaced the flares with a new 18 MMBtu/hr flare in 2016.

The facility was also issued an Authority to Construct (A/C 25596) for a new flare on 1/11/19, that has yet to be installed. This new flare will be incorporated into the Title V permit as a future applicable requirement.

III. FEDERALLY ENFORCEABLE GENERAL REQUIREMENTS

TITLE V PERMIT MODIFICATIONS AND RENEWAL

1. The permit holder must submit to the SMAQMD Air Pollution Control Officer a complete Title V permit application for renewal no later than 12 months prior to the expiration date of the Title V permit.
   [Basis: SMAQMD Rule 207 Section 301.3]

2. The permit holder must submit to the SMAQMD Air Pollution Control Officer a complete Title V permit application for minor Title V permit modification when applicable. The application must be submitted after receiving any required preconstruction permit from the SMAQMD and before commencing operation associated with the Minor Title V permit modification.
   [Basis: SMAQMD Rule 207 Section 301.5]

3. The permit holder must submit to the SMAQMD Air Pollution Control Officer a complete Title V permit application for Significant Title V permit modification when applicable. The application must not be submitted prior to receiving any required preconstruction permit from the SMAQMD but no later than 12 months after commencing an operation associated with the Significant Title V permit modification. Where an existing federally enforceable Title V permit condition would prohibit such change in operation or the stationary source is not required to obtain a preconstruction permit, the owner or operator must obtain a Title V permit modification before commencing operation.
   [Basis: SMAQMD Rule 207 Section 301.6]

4. The permit holder must submit to the SMAQMD Air Pollution Control Officer timely updates to the Title V application as new applicable federal requirements become applicable to the source.
   [Basis: SMAQMD Rule 207 Section 302.1]

5. The permit holder must submit to the SMAQMD Air Pollution Control Officer any additional information necessary to correct any incorrect information in the Title V permit application upon becoming aware of such incorrect submittal or if the applicant is notified by the SMAQMD Air Pollution Control Officer of such incorrect submittal.
   [Basis: SMAQMD Rule 207 Section 302.2]

6. The permit holder must submit to the SMAQMD Air Pollution Control Officer any additional information relating to the Title V application within 30 days if such information is requested in writing by the SMAQMD Air Pollution Control Officer.
   [Basis: SMAQMD Rule 207 Section 302.3]

7. Title V permit expiration terminates the stationary source's right to operate unless a timely and complete Title V permit application for renewal has been submitted and the stationary source complies with SMAQMD Rule 207 Sections 303.1(a), (b), (c), and (d), in which case the existing Title V permit will remain in effect until the Title V permit renewal has been issued or denied.
   [Basis: SMAQMD Rule 207 Section 303.2]

III. FEDERALLY ENFORCEABLE GENERAL REQUIREMENTS

8. Any Title V application form, report, or compliance certification submitted pursuant to a federally enforceable requirement in this permit must contain certification by a responsible official. The certification must state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.
   [Basis: SMAQMD Rule 207 Section 304]

9. This Title V permit has a 5-year fixed term from the date of issuance. The Title V permit will have a new 5-year fixed term from the date of final action on reopening if the responsible official chooses to submit to the SMAQMD a complete Title V application for renewal upon reopening of the Title V permit pursuant to Sections 411 or 412 of SMAQMD Rule 207, and the Title V permit is renewed according to the administrative procedures listed in SMAQMD Rule 207 Sections 401 through 408.
   [Basis: SMAQMD Rule 207 Section 306]

COMPLIANCE

10. The permit holder must comply with all conditions of the Title V permit.
    [Basis: SMAQMD Rule 207 Section 305.1(k)(1)]

11. Compliance with the conditions of the Title V permit will be deemed compliance with all applicable requirements identified in the Title V permit.
    [Basis: SMAQMD Rule 207 Section 307]

12. It may not be a defense for a permit holder in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of the Title V permit.
    [Basis: SMAQMD Rule 207 Section 305.1(k)(2)]

13. This Title V permit may be modified, revoked, reopened and reissued, or terminated for cause.
    [Basis: SMAQMD Rule 207 Section 305.1(k)(3)]

14. The permit holder must furnish to the SMAQMD Air Pollution Control Officer, within a reasonable time, any information that the SMAQMD Air Pollution Control Officer may request in writing to determine whether cause exists for modifying, revoking and reissuing, or terminating the permit pursuant to SMAQMD Rule 207 Section 411, or to determine compliance with this Title V permit. Upon request, the permit holder must also furnish to the SMAQMD Air Pollution Control Officer copies of records required to be kept by conditions of this permit or, for information claimed to be confidential, the permit holder may furnish such records directly to the U.S. EPA along with a claim of confidentiality.
    [Basis: SMAQMD Rule 207 Section 305.1(k)(4)]

15. Noncompliance with any federally enforceable requirement in this Title V permit is grounds for Title V permit termination, revocation and reissuance, modification, enforcement action or denial of the Title V permit renewal application. Any violation of the Title V permit will also be a violation of SMAQMD Rule 207.
    [Basis: SMAQMD Rule 207 Section 305.1(k)(5)]

III. FEDERALLY ENFORCEABLE GENERAL REQUIREMENTS

16. A pending Title V permit action (e.g. a proposed permit revision) or notification of anticipated noncompliance does not stay any permit condition.
[Basis: SMAQMD Rule 207 Section 305.1(k)(6)]

17. This Title V permit does not convey any property rights of any sort or any exclusive privilege.
[Basis: SMAQMD Rule 207 Section 305.1(k)(7)]

18. Upon presentation of credentials and other documents as may be required by law, the permit holder must allow the SMAQMD Air Pollution Control Officer or an authorized representative to perform all of the following:

    A. Enter upon the stationary source's premises where this source is located, where emissions related activity is conducted or where records must be kept under the conditions of this permit;

    B. Have access to and copy, at reasonable times, any records that must be kept under the conditions of this permit;

    C. Inspect at reasonable times, the stationary source, equipment (including monitoring and air pollution control equipment), practices and operations regulated or required under this permit, and;

    D. As authorized by the Federal Clean Air Act, sample or monitor at reasonable times, substances or parameters for the purpose of assuring compliance with the permit conditions or applicable federal requirements.

    [Basis: SMAQMD Rule 207 Section 413.1]

REPORTS AND RECORD KEEPING

19. **Monitoring Reports**

    A. The permit holder must submit to the SMAQMD Air Pollution Control Officer at least once every six months, unless required more frequently by an applicable requirement, reports of all required monitoring. All instances of deviations from Title V permit monitoring conditions must be clearly identified in such reports.

    B. The reporting periods for this permit are January 1 through June 30 and July 1 through December 31. The reports must be submitted by July 30 and February 28 of each year respectively.

    C. All required reports must be certified by the responsible official and must state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.
    [Basis: SMAQMD Rule 207, Section 501.1]

III. FEDERALLY ENFORCEABLE GENERAL REQUIREMENTS

20. **Compliance Reports**

A. The permit holder must submit to the SMAQMD Air Pollution Control Officer and U.S. EPA (Air-3, U.S. EPA, Region IX) on an annual basis, unless required more frequently by additional applicable federal requirements such as Section 114(a)(3) and 504(b) (42 U.S.C. Sections 7414(a)(3) and 7661c(b)) of the Federal Clean Air Act, a certification of compliance by the responsible official with all terms and conditions contained in the Title V permit, including emission limitations, standards and work practices.

B. The reporting period for this permit is January 1 through December 31. The report must be submitted by February 28 of each year.

C. All required reports must be certified by the responsible official and must state that, based on information and belief formed after reasonable inquiry, the statements and information in the document are true, accurate and complete.

D. The compliance certification must include the following:
   i. The identification of each term or condition of the Title V permit that is the basis of the certification.
   ii. The method(s) used for determining the compliance status of the source, currently and over the reporting period, and whether such method(s) provides continuous or intermittent data.
   iii. The status of compliance with the terms and conditions of the Title V permit for the period covered by the certification, based on the method designated in Section D(ii) of this condition. The certification must identify each deviation and take it into account in the compliance certification. The certification must also identify as possible exceptions to compliance any periods during which compliance is required and in which an excursion occurred. An excursion is a departure from an indicator range established for monitoring under this part, consistent with any averaging period specified for averaging the results of the monitoring.
   iv. Such other facts as the SMAQMD Air Pollution Control Officer may require to determine the compliance status of the source.
   v. In accordance with SMAQMD Rule 207 Section 305, a method for monitoring the compliance of the stationary source with its emissions limitations, standards and work practices.

[Basis: SMAQMD Rule 207 Section 413.4, 40 CFR 64, and 40 CFR 70.6(c)(5)(iii)]

21. **Startup, Shutdown and Malfunction (SSM) Periodic and Immediate Reports**

A. Periodic Reports
   i. If actions taken during a SSM event are consistent with the procedures specified in the SSM Plan the permit holder must state such information in a SSM Report.
   ii. The SSM Report must be submitted by February 28 and July 30 of each year but is only required if a SSM event occurred during the reporting period January 01 - June 30 and July 01 - December 31 of each year.
   iii. The SSM Report must contain:
      a. Number, duration and a brief description of each SSM event.

III. FEDERALLY ENFORCEABLE GENERAL REQUIREMENTS

b. A letter containing the name, title and signature of the responsible official who is certifying the accuracy of the report.

[Basis: 40 CFR 63.1955(b), 40 CFR 63.1980(b), 40 CFR 63.10(d)(5)(i)]

B. Immediate Reports

i. If actions taken during a SSM event are not consistent with the procedures specified in the SSM Plan the permit holder must:

a. Report to the SMAQMD Air Pollution Control Officer, by telephone call or facsimile (fax), within 2 working days after commencing actions inconsistent with the SSM Plan.

b. Follow with a letter to the SMAQMD Air Pollution Control Officer within 7 working days after the end of the SSM event that:

(i) Contains the name, title and signature of the responsible official who is certifying the accuracy of the report.

(ii) Explains the circumstances of the event.

(iii) Explains the reasons for not following the SSM Plan

(iv) Explains whether any excess emissions and/or parameter monitoring exceedances are believed to have occurred.

[Basis: 40 CFR 63.1955(b), 40 CFR 63.1980(b) and 40 CFR 63.10(d)(5)(ii)]

22. The permit holder must maintain files of all required information (including all reports and notifications) recorded in a form suitable and readily available for expeditious inspection and review. The files must be retained for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report or record. At a minimum, the most recent 2 years of data must be retained on site. The remaining 3 years of data may be retained off site. Such files may be maintained on microfilm, on a computer, on computer floppy disks, on magnetic tape disks or on microfiche.
[Basis: 40 CFR 63.1955(b), 40 CFR 63.1980(b) and 40 CFR 63.10(d)(5)(ii)]

Frequency	Information to be Recorded
At all times	A. The occurrence and duration of each startup, shutdown or malfunction of operation (i.e., process equipment). B. The occurrence and duration of each malfunction of the required air pollution control and monitoring equipment. C. All required maintenance performed on the air pollution control and monitoring equipment. D. Actions taken during periods of startup, shutdown and malfunction (including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation) when such actions are different from the procedures specified in the affected source's Startup, Shutdown and Malfunction Plan.

III. FEDERALLY ENFORCEABLE GENERAL REQUIREMENTS

Frequency	Information to be Recorded
At all times	E. All information necessary to demonstrate conformance with the affected source's Startup, Shutdown and Malfunction Plan when all actions taken during periods of startup, shutdown and malfunction (including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation) are consistent with the procedures specified in such plan. (The information needed to demonstrate conformance with the Startup, Shutdown and Malfunction Plan may be recorded using a "checklist" or some other effective form of recordkeeping, in order to minimize the recordkeeping burden for conforming events)

23. The permit holder must report within 24 hours of detection any deviation from a federally enforceable Title V permit condition not attributable to an emergency. In order to fulfill the reporting requirement of this condition, the permit holder must notify the SMAQMD Air Pollution Control Officer by telephone followed by a written statement describing the nature of the deviation from the federally enforceable permit condition.
[Basis: SMAQMD Rule 207 Section 501.3]

24. All monitoring data and support information required by a federally enforceable applicable requirement must be kept by the stationary source for a period of 5 years from the date of the monitoring sample, measurement, report or application. Support information includes all calibration and maintenance records and all original strip-chart recordings for continuous monitoring instrumentation, and copies of all reports required by the federally enforceable applicable requirement in the Title V permit.
[Basis: SMAQMD Rule 207 Section 502.3]

RINGELMANN CHART

25. Except as otherwise provided in SMAQMD Rule 401 Section 100, a person must not discharge into the atmosphere from any single source of emission whatsoever any air contaminant, other than uncombined water vapor, for a period or periods aggregating more than three minutes in any one hour which is:

    A. As dark or darker in shade as that designated No. 1 on the Ringelmann Chart, as published by the United States Bureau of Mines, or

    B. Of such opacity as to obscure a human observer's view, or a certified calibrated in-stack opacity monitoring system to a degree equal to or greater than No. 1 on the Ringelmann Chart.

    [Basis: SMAQMD Rule 401 Section 301]

III. FEDERALLY ENFORCEABLE GENERAL REQUIREMENTS

PARTICULATE MATTER

26. The permit holder must take every reasonable precaution not to cause or allow the emissions of fugitive dust from being airborne beyond the property line from which the emission originates, from any construction, handling or storage activity, or any wrecking, excavation, grading, clearing of land or solid waste disposal operation. Reasonable precautions may include, but are not limited to:

    A. Use, where possible, of water or chemicals for control of dust in the demolition of existing buildings or structures, construction operations, the construction of roadways or the clearing of land.

    B. Application of asphalt, oil, water, or suitable chemicals on dirt roads, materials stockpiles and other surfaces which can give rise to airborne dusts;

    C. Other means approved by the SMAQMD Air Pollution Control Officer.
    [Basis: SMAQMD Rule 403 Section 301]

27. Except as otherwise provided in Condition No. 27, the permit holder must not discharge into the atmosphere from any source particulate matter in excess of 0.23 grams per dry standard cubic meter (0.1 grains per dry standard cubic foot).
    [Basis: SMAQMD Rule 404 Section 301]

28. The permit holder must not discharge into the atmosphere particulate matter from the burning of any kind of material containing carbon in a free or combined state, from any single source of emission whatsoever, combustion contaminants in any state or combination thereof exceeding in concentration at the point of discharge: 0.23 grams per dry standard cubic meter (0.1 grains per dry standard cubic foot) of gas calculated to 12% carbon dioxide (CO2) at standard conditions.
    [Basis: SMAQMD Rule 406 Section 302]

SULFUR COMPOUNDS

29. The permit holder must not discharge into the atmosphere from any single source of emission whatsoever sulfur compounds in any state or combination thereof exceeding in concentration at the point of discharge: sulfur compounds, calculated as sulfur dioxide (SO2): 0.2% by volume.
    [Basis: SMAQMD Rule 406 Section 301]

30. Except as otherwise provided in Section 110 of Rule 420, the permit holder must not burn any gaseous fuel containing sulfur compounds in excess of 1.14 grams per cubic meter (50 grains per 100 cubic feet) of gaseous fuel, calculated as hydrogen sulfide at standard conditions, or any liquid fuel or solid fuel having a sulfur content in excess of 0.5% by weight.
    [Basis: SMAQMD Rule 420 Section 301]

III. FEDERALLY ENFORCEABLE GENERAL REQUIREMENTS

ARCHITECTURAL COATING AND SOLVENT CLEANING

31. Any coating applied to stationary structures and their appurtenances, to mobile homes, to pavements, or to curbs, must meet the requirements of SMAQMD Rule 442.
[Basis: SMAQMD Rule 442]

32. All VOC-containing materials used for architectural coating, including clean-up, must be stored in closed containers when not in use. In use includes, but is not limited to: being accessed, filled, emptied, maintained or repaired.
[Basis: SMAQMD Rule 442 Section 304]

33. The permit holder must comply with the requirements of SMAQMD Rule 466 Solvent Cleaning when using volatile organic compounds for the cleanup of architectural coating application equipment or for other applications of solvent cleaning at the facility.
[Basis: SMAQMD Rule 466]

34. The permit holder must keep a record of all architectural coatings purchased that are not clearly labeled as complying with the VOC content limits contained in SMAQMD Rule 442. Compliance in these cases can be determined by maintaining records of the manufacturer's certifications or by Material Safety Data Sheets (MSDS) that demonstrate compliance with the VOC limits of SMAQMD Rule 442.
[Basis: SMAQMD Rule 442 and SMAQMD Rule 207 Section 305]

35. The permit holder must comply with the requirements of SMAQMD Rule 452 Can Coating when using volatile organic compounds to use or apply any coating on any coating line or for other applications of solvent cleaning at the facility.
[Basis: SMAQMD Rule 452]

EQUIPMENT BREAKDOWNS

36. An emergency constitutes an affirmative defense to an action brought for noncompliance with technology based emission limitations if the following conditions are met:

    A. The affirmative defense of an emergency must be demonstrated through properly signed, contemporaneous operating logs, or other relevant evidence that:

        i. An emergency occurred and that the permit holder can identify the cause(s) of the emergency.

        ii. The permitted facility was at the time being properly operated.

        iii. During the period of the emergency the permit holder took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the Title V permit.

        iv. The permit holder submitted notice of the emergency to the SMAQMD Air Pollution

III. FEDERALLY ENFORCEABLE GENERAL REQUIREMENTS

Control Officer within two working days of the time when emissions limitations were exceeded due to the emergency. The notice must contain a description of the emergency and corrective actions taken.

B. In any enforcement proceedings, the permit holder seeking to establish the occurrence of an emergency has the burden of proof.
[Basis: SMAQMD Rule 207 Section 414]

37. The permit holder must notify the SMAQMD Air Pollution Control Officer of any occurrence which constitutes an emergency as defined in SMAQMD Rule 207 Section 212 as soon as reasonably possible, but no later than one hour after its detection. If the emergency occurs when the SMAQMD Air Pollution Control Officer cannot be contacted, their report of the emergency must be made at the commencement of the next regular working day. The notification must identify the time, specific location, equipment involved and to the extent known the cause(s) of the occurrence.
[Basis: SMAQMD Rule 207 Section 501.2]

PAYMENT OF FEES

38. The fee for (1) the issuance of a Title V operating permit, (2) the annual renewal and inspection of a Title V operating permit, (3) the modification of a Title V operating permit or (4) an administrative Title V permit amendment must be assessed in accordance with SMAQMD Rule 301, Section 313.
[[Basis: SMAQMD Rule 207 Section 305.7 and SMAQMD Rule 301 Section 313]

39. After the provisions for granting permits as set forth in SMAQMD Rule 207 have been complied with, the permit holder will be notified by mail of the fee due and payable and the date the fee is due. If the fee is not paid by the specified due date, the fee will be increased by one half the amount and the applicant/permit holder will be notified by mail of the increased fee. If the increased fee is not paid within 30 days after notice the application/permit will be canceled and the applicant/permit holder will be notified by mail.
[Basis: SMAQMD Rule 207 Section 305.7 and Rule 301 Section 401]

CLEAN AIR ACT FEES

40. After the U.S. EPA determines that the SMAQMD has failed to demonstrate attainment of the one hour ozone ambient air quality standard by the attainment year, the permit holder, operating any major stationary source of VOC or NOx, must pay the Clean Air Act fees specified by the SMAQMD Air Pollution Control Officer in accordance with SMAQMD Rule 307.
[Basis: SMAQMD Rule 307]

EMISSION STATEMENTS

41. The permit holder, when operating any stationary source that emits 25 tons or more per year of VOC or NOx of actual emissions, must annually provide the SMAQMD Air Pollution Control Officer with a written emission statement showing actual emissions of VOC and NOx from that

III. FEDERALLY ENFORCEABLE GENERAL REQUIREMENTS

source.
[Basis: SMAQMD Rule 105]

ACCIDENTAL RELEASES

42. If subject to Section 112(r) of the CAA and 40 CFR Part 68, the permit holder must register and submit to the U.S. EPA the required data related to the risk management plan (RMP) for reducing the probability of accidental releases of any regulated substances listed pursuant to Section 112(r)(3) of the CAA as amended in 40 CFR 68.130. The list of substances, threshold quantities and accident prevention regulations promulgated under 40 CFR Part 68 do not limit in any way the general duty provisions under Section 112(r)(1).
[Basis: 40 CFR Part 68]

43. If subject to Section 112(r) of the CAA and 40 CFR Part 68, the permit holder must comply with the requirements of 40 CFR Part 68 no later than the latest of the following dates as provided in 40 CFR Part 68.10(a):

    A. June 21, 1999,

    B. Three years after the date on which a regulated substance is first listed under 40 CFR Part 68.130, or

    C. The date on which a regulated substance is first present above a threshold quantity in a process.

    [Basis: 40 CFR Part 68]

44. If subject to Section 112(r) of the CAA and 40 CFR Part 68, the permit holder must submit any additional relevant information requested by any regulatory agency necessary to ensure compliance with the requirements of 40 CFR Part 68.
[Basis: 40 CFR Part 68]

45. If subject to Section 112(r) of the CAA and 40 CFR Part 68, the permit holder must annually certify compliance with all applicable requirements of Section 112(r) as part of the annual compliance certification as required by SMAQMD Rule 207 Section 413.4.
[Basis: 40 CFR Part 68]

TITLE VI REQUIREMENTS (OZONE DEPLETING SUBSTANCES)

46. The permit holder, when opening appliances containing CFCs for maintenance, service, repair, or disposal must comply with the required practices pursuant to 40 CFR Part 82.156.
[Basis: 40 CFR Part 82 Subpart F]

47. Equipment used during the maintenance, service, repair, or disposal of appliances containing CFCs must comply with the standards for recycling and recovery equipment pursuant to 40 CFR Part 82.158.
[Basis: 40 CFR Part 82 Subpart F]

III. FEDERALLY ENFORCEABLE GENERAL REQUIREMENTS

48. Persons performing maintenance, service, repair or disposal of appliances containing CFCs must be certified by an approved technician certification program pursuant to 40 CFR Part 82.161.
[Basis: 40 CFR Part 82 Subpart F]

STARTUP, SHUTDOWN AND MALFUNCTION PLAN

49. The permit holder must develop and implement a written Startup, Shutdown and Malfunction (SSM) Plan as specified in 40 CFR 63.6(e)
[Basis: 40 CFR 63.1960]

IV. LOCAL (*NON*-FEDERALLY ENFORCEABLE) - GENERAL REQUIREMENTS

APPLICABILITY:

1. The requirements outlined in this section pertain to the SMAQMD Rule 201 Permit to Operate and are not part of the Title V permit.
   [Basis: General Rule limitation]

LOCAL PERMIT RENEWAL:

2. Permits to Operate issued to 28th street Landfill, pursuant to Rule 201 (non-Title V Permits to Operate), must be renewed annually on September 1 and upon payment of the permit renewal fee established pursuant to SMAQMD Rule 301.
   [Basis: SMAQMD Rule 301]

3. The SMAQMD Air Pollution Control Officer must review every SMAQMD Rule 201 Permit to Operate upon annual renewal, pursuant to California Health and Safety Code Section 42301(c), to determine that permit conditions are adequate to ensure compliance with, and the enforceability of, SMAQMD rules and regulations applicable to the article, machine, equipment or contrivance for which the permit was issued. Applicable SMAQMD rules and regulations must include those which were in effect at the time the permit was issued or modified, or which have subsequently been adopted and made retroactively applicable to an existing article, machine, equipment or contrivance, by the SMAQMD Board of Directors. The SMAQMD Air Pollution Control Officer must revise the conditions, if such conditions are not consistent, in accordance with all applicable rules and regulations.
   [Basis: California Health and Safety Code Section 42301(c)]

GENERAL

4. The SMAQMD Air Pollution Control Officer and/or authorized representatives, upon the presentation of credentials must be permitted:

   A. To enter upon the premises where the source is located or in which any records are required to be kept under the terms and conditions of this permit to operate.

   B. At reasonable times to have access to and copy any records required to be kept under the terms and conditions of this Permit to Operate.

   C. To inspect any equipment, operation, or method required in this Permit to Operate.

   D. To sample emissions from the source or require samples to be taken.
   [Basis: SMAQMD Rule 201, Section 405]

5. Legible copies of all SMAQMD Rule 201 permits must be maintained on the premises with the equipment.
   [Basis: SMAQMD Rule 201, Section 401]

IV. LOCAL (*NON*-FEDERALLY ENFORCEABLE) - GENERAL REQUIREMENTS

6. The facility may not discharge air contaminants or other materials that cause injury, detriment, nuisance or annoyance to any considerable number of persons or to the public, or which endanger the comfort, repose, health or safety of any such persons or the public, or which cause, or have a natural tendency to cause, injury or damage to business or property.
[Basis: SMAQMD Rule 402, Section 301]

7. The permit holder must, upon determination of applicability and written notification by the District, comply with all applicable requirements of the Air Toxics "Hot Spots" Information and Assessment Act (California Health and Safety Code Section 44300 et seq.)
[Basis: SMAQMD Rule 201, Section 303.1]

EQUIPMENT OPERATION:

8. The equipment must be properly maintained and operated in accordance with the information submitted with the application and the manufacturer's recommendations at all times.
[Basis: SMAQMD Rule 201, Section 405 and Rule 202, Section 408.1]

9. This permit does not authorize the emission of air contaminants in excess of those allowed by Division 26, Part 4, Chapter 3 of the Health and Safety Code of the State of California or the Rules and Regulations of the SMAQMD.
[Basis: SMAQMD Rule 201, Sections 303.1, 405]

EQUIPMENT BREAKDOWNS:

10. The permit holder must notify the SMAQMD Air Pollution Control Officer of any occurrence which constitutes a breakdown, as defined in SMAQMD Rule 602 Section 201, as soon as reasonably possible, but no later than one hour after its detection. If the breakdown occurs when the SMAQMD Air Pollution Control Officer cannot be contacted, the report of breakdown must be made at the commencement of the next regular working day. The notification must identify the time, specific location, equipment involved and, to the extent known, the cause(s) of the occurrence.
[Basis: SMAQMD Rule 602]

11. Upon notification of the breakdown condition, the SMAQMD Air Pollution Control Officer must investigate the breakdown condition in accordance with uniform written procedures and guidelines relating to logging of initial reports on appropriate forms, investigation, and enforcement follow-up. If the occurrence does not constitute a breakdown condition, the SMAQMD Air Pollution Control Officer may take appropriate enforcement action.
[Basis: SMAQMD Rule 602]

12. An occurrence which constitutes a breakdown condition, and which persists only until the end of the production run or 24 hours, whichever is sooner (except for continuous air pollution monitoring equipment, for which the period is 96 hours) will constitute a violation of any applicable emission limitation or restriction prescribed by the SMAQMD Rules and Regulations; however, the SMAQMD Air Pollution Control Officer may elect to take no enforcement action if the owner or operator demonstrates to his satisfaction that a breakdown condition exists and the

IV. LOCAL (*NON*-FEDERALLY ENFORCEABLE) - GENERAL REQUIREMENTS

following requirements are met:

A. The notification required in SMAQMD Rule 602 Section 301.1 is made; and
B. Immediate appropriate corrective measures are undertaken and compliance is achieved, or the process is shutdown for corrective measures before commencement of the next production run or within 24 hours, whichever is sooner (except for continuous air pollution monitoring equipment for which the period is 96 hours). If the owner or operator elects to shut down, rather than come into immediate compliance, (s)he must nonetheless take whatever steps are possible to minimize the impact of the breakdown within the 24 hour period; and

C. The breakdown does not interfere with the attainment and maintenance of any national ambient air quality standard.

[Basis: SMAQMD Rule 602]

13. An occurrence which constitutes a breakdown condition must not persist longer than the end of the production run or 24 hours, whichever is sooner (except for continuous air pollution monitoring equipment, for which the period is 96 hours), unless an emergency variance has been obtained.
[Basis: SMAQMD Rule 602]

14. If the breakdown condition will either require more than 24 hours to correct or persists longer than the end of the production run (except for continuous air pollution monitoring equipment, for which the period is 96 hours) the owner or operator may, in lieu of shutdown, request the SMAQMD Air Pollution Control Officer to commence the emergency variance procedure set forth in SMAQMD Rule 602 Section 304.
[Basis: SMAQMD Rule 602]

15. No emergency variance will be granted unless the chairperson of the SMAQMD Hearing Board or other designated member(s) of the SMAQMD Hearing Board finds that:

A. The occurrence constitutes a breakdown condition;

B. Continued operation is not likely to create an immediate threat or hazard to public health or safety; and

C. The requirements for a variance set forth in California Health & Safety Code Sections 42352 and 42353 have been met;

D. The continued operation in a breakdown condition will not interfere with the attainment or maintenance of the national ambient air quality standards.

[Basis: SMAQMD Rule 602]

16. At any time after an emergency variance has been granted, the SMAQMD Air Pollution Control Officer may request for good cause that the chairperson or designated member(s) reconsider and revoke, modify or further condition the variance. The procedures set forth in SMAQMD Rule 602 Section 304.1 govern any further proceedings conducted under this request.

IV. LOCAL (*NON*-FEDERALLY ENFORCEABLE) - GENERAL REQUIREMENTS

[Basis: SMAQMD Rule 602]

17. An emergency variance will remain in effect only for as long as necessary to repair or remedy the breakdown condition, but in no event after a properly noticed hearing to consider an interim or 90 day variance has been held, or 15 days from the date of the subject occurrence, whichever is sooner.
[Basis: SMAQMD Rule 602]

18. Within one week after a breakdown condition has been corrected, the owner or operator must submit a written report to the SMAQMD Air Pollution Control Officer on forms supplied by the SMAQMD Air Pollution Control Officer describing the causes of the breakdown, corrective measures taken, estimated emissions during the breakdown and a statement that the condition has been corrected, together with the date of correction and proof of compliance. The SMAQMD Air Pollution Control Officer may, at the request of the owner or operator for good cause, extend up to 30 days the deadline for submittal of the report described in this subsection.
[Basis: SMAQMD Rule 602]

19. The burden of proof is on the owner or operator of the source to provide sufficient information to demonstrate that a breakdown did occur. If the owner or operator fails to provide sufficient information, the SMAQMD Air Pollution Control Officer will undertake appropriate enforcement action.
[Basis: SMAQMD Rule 602]

20. Any failure to comply, or comply in a timely manner, with the reporting requirements established in SMAQMD Rule 602 Sections 301.1 and 401 will constitute a separate violation of SMAQMD Rule 602.
[Basis: SMAQMD Rule 602]

21. It will constitute a separate violation of SMAQMD Rule 602 for any person to file with the SMAQMD Air Pollution Control Officer a report which falsely, or without probable cause, claims that an occurrence is a breakdown condition.
[Basis: SMAQMD Rule 602]

22. Severability - if any provision, clause, sentence, paragraph, section or part of these conditions for any reason is judged to be unconstitutional or invalid, such judgment will not affect or invalidate the remainder of these conditions.
[Basis: SMAQMD Rule 101]

23. The SMAQMD Air Pollution Control Officer may grant breakdown relief for Title V facilities under SMAQMD Rule 602. The U.S. EPA, however, may not recognize the breakdown relief as being federally enforceable. Breakdown relief under SMAQMD Rule 602 must be reported as a deviation under this Title V permit.
[Basis: SMAQMD Rule 602]

24. The SMAQMD Hearing Board may grant variance relief for Title V facilities under SMAQMD Rules 601 and 602. The U.S. EPA, however, may not recognize the variance granted as being

IV. LOCAL (*NON*-FEDERALLY ENFORCEABLE) - GENERAL REQUIREMENTS

federally enforceable. A variance granted under SMAQMD Rules 601 or 602 must be reported as a deviation under this Title V permit.
[Basis: SMAQMD Rule 602]

ARCHITECTURAL COATINGS

25. Unless applied by an aerosol can or contained within a volume of one liter or less any person who supplies, sells offers for sale or manufactures any architectural coating for use within the SMAQMD, as well as any person who applies or solicits the application of any architectural coating within the SMAQMD must meet the requirements of SMAQMD Rule 442.
[SMAQMD Rule 442 (05-24-2001 version)]

V.A. EQUIPMENT SPECIFIC REQUIREMENTS – LANDFILL AND LANDFILL GAS COLLECTION SYSTEM

A. EQUIPMENT DESCRIPTION: The information specified under this section is enforceable by the SMAQMD, U.S. EPA and the public.

The requirements specified under the following sections apply to the following equipment:

Landfill and Landfill Gas Collection System
P/O No. 12762(Rev02)
1. Landfill area designated as WMU-A and WMU-B
2. Perimeter wells
3. Interior wells
4. Piping to collect landfill gas from perimeter/interior wells and direct it to the flare
5. Blowers to move landfill gas to the flare

B. EQUIPMENT SPECIFIC FEDERALLY ENFORCEABLE REQUIREMENTS: The requirements specified under this section are enforceable by the SMAQMD, U.S. EPA and the public.

EMISSION LIMIT REQUIREMENTS

1. The landfill gas collection system must operate such that the methane concentration is less than 500 parts per million above background at the surface of the landfill.
[Basis: 40 CFR 60.753(d)]

2. The fugitive emissions from the landfill must not exceed the following level:
[Basis: SMAQMD Rule 202]

Pollutant	Emission Limits (A) lb/quarter
VOC	1,601

(A) Emissions are based on the following assumptions:
1. The landfill gas collection system captures 85% of the generated landfill gas. This results in 353 scfm of landfill gas released as a fugitive emission.
2. The landfill gas contains an average NMOC concentration of 822 ppm (as methane).
3. The collection system operates 24 hours/day and 92 days/quarter.
4. As a conservative assumption, all NMOC is treated as VOC. The City of Sacramento may speciate NMOC to account for and exclude exempt (non-VOC) compounds when determining compliance with this condition.

EQUIPMENT OPERATION REQUIREMENTS

3. The maximum design capacity of the 28th Street Landfill must not exceed 6.514 million cubic yards.
[Basis: SMAQMD Rule 202]

V.A. EQUIPMENT SPECIFIC REQUIREMENTS – LANDFILL AND LANDFILL GAS COLLECTION SYSTEM

4. The landfill gas collection system must be designed to handle the maximum expected gas flow rate from the landfill over the intended use period of the landfill gas control system. **[Basis: 40 CFR 60.752(b)(2)(ii)(A)(*1*)]**

5. Landfill gas must be collected from each area, cell or group of cells in the landfill in which the initial solid waste has been placed for a period of 5 years or more. **[Basis: 40 CFR 60.753(a)]**

6. Landfill gas must be collected at a sufficient extraction rate. **[Basis: 40 CFR 60.752(b)(2)(ii)(A)(*3*)]**

7. The landfill gas collection system must be designed to minimize off-site migration of subsurface landfill gas. **[Basis: 40 CFR 60.752(b)(2)(ii)(A)(*4*)]**

8. The landfill gas collection system must operate such that all collected gases are vented to the flare. In the event the collection or control system is inoperable, the gas mover system must be shut down and all valves in the collection and control system contributing to venting of the gas to the atmosphere must be closed within 1 hour. **[Basis: 40 CFR 60.753(e)]**

9. A sampling port and a temperature measuring device or an access port for temperature measurements must be installed at each landfill gas wellhead. **[Basis: 40 CFR 60.756(a)]**

10. The landfill gas collection system must operate such that each landfill gas wellhead exhibits negative pressure except under the following conditions:

    A. A fire or increased well temperature. The owner or operator must record instances when positive pressure occurs in efforts to avoid a fire.
    B. Use of a geomembrane or synthetic cover.
    C. A decommissioned well.
    D. The well is not placed in refuse (gas migration control well). **[Basis: SMAQMD Rule 202]**
    E. A well is temporarily shut-off or disconnected to prevent a fire.

    [Basis: 40 CFR 60.753(b)]

V.A. EQUIPMENT SPECIFIC REQUIREMENTS – LANDFILL AND LANDFILL GAS COLLECTION SYSTEM

11. A. The landfill gas collection system must operate such that each interior landfill gas wellhead achieves the following:
    i. A landfill gas temperature less than 55°C and
    ii. Either a nitrogen level less than 20 percent or an oxygen level less than 5 percent. The owner or operator must decide whether to monitor oxygen or nitrogen at each well.

    B. The owner or operator may establish a higher operating temperature, nitrogen or oxygen value at a particular well. A higher operating value demonstration must show supporting data that the elevated parameter does not cause fires or significantly inhibit anaerobic decomposition by killing methanogens.

    [Basis: 40 CFR 60.753(c)]

MONITORING AND CORRECTIVE ACTION REQUIREMENTS

12. A device must be installed that records flow to or bypass of the flares. The owner or operator must either:

    A. Install, calibrate and maintain a landfill gas flow rate measuring device that must record the flow to the flares at least every 15 minutes; or

    B. Secure the bypass line valve in the closed position with a car-seal or a lock-and-key type configuration.

    [Basis: 40 CFR 60.756(b)(2)]

13. If applicable, a visual inspection of the seal or closure mechanism on the landfill gas bypass valve for the flares must be conducted at least once every month to ensure that the valve is maintained in the closed position and that the landfill gas flow is not diverted through the bypass line.

    [Basis: 40 CFR 60.756(b)(2)(ii)]

14. Gauge pressure must be measured monthly in the landfill gas collection header at each individual wellhead.

    A. If a positive pressure exists, action must be initiated to correct the exceedance within 5 calendar days, except for the conditions allowed under Condition No. 10. If negative pressure cannot be achieved without excess air infiltration within 15 calendar days of the first measurement, the gas collection system must be expanded to correct the exceedance within 120 days of the initial measurement of positive pressure.

    B. Any attempted corrective measure must not cause exceedances of other operational or performance standards.

    [Basis: 40 CFR 60.755(a)(3) and 40 CFR 60.756(a)(1)]

V.A. EQUIPMENT SPECIFIC REQUIREMENTS – LANDFILL AND LANDFILL GAS COLLECTION SYSTEM

15. Temperature and either the nitrogen level (%) or the oxygen level (%) must be measured monthly for each interior well.

    A. The nitrogen level must be determined using U.S. EPA Method 3C unless an alternative method is established as allowed by 40 CFR 60.752(b)(2)(i).

    B The oxygen level must be determined using U.S. EPA Method 3A or 3C unless an alternative method is established as allowed by 40 CFR 60.752(b)(2)(i).

    C. If a well exceeds the operating parameters stated in Condition No. 11, action must be initiated to correct the exceedance within 5 calendar days. If correction of the exceedance cannot be achieved within 15 calendar days of the first measurement, the gas collection system must be expanded to correct the exceedance within 120 days of the initial exceedance.

    D. Any attempted corrective measure must not cause exceedances of other operation or performance standards.

    [Basis: 40 CFR 60.753(c)(1), 40 CFR 60.753(c)(2), 40 CFR 60.755(a)(5), 40 CFR 60.756(a)(2) and 40 CFR 60.756(a)(3)]

16. Surface concentrations of methane must be measured quarterly along the entire perimeter of the collection area, along a pattern that traverses the landfill at 30 meter intervals (or a site-specific established spacing) and where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover. The owner or operator may establish an alternative traversing pattern that ensures equivalent coverage. A surface monitoring design plan must be developed that includes a topographical map with the monitoring route and the rationale for any site specific deviations from the 30 meter intervals. Areas with steep slopes or other dangerous areas may be excluded from the surface testing.

    Any closed landfill that has no monitored exceedances of the operational standard in three consecutive quarterly monitoring periods may skip to annual monitoring. Any methane reading of 500 ppm or more above background detected during the annual monitoring returns the frequency to quarterly monitoring.
    [Basis: 40 CFR 60.756(f)]

    A. Each area must be monitored using an organic vapor analyzer, flame ionization detector, or other portable monitor.

    B. The organic vapor analyzer, flame ionization detector or other portable monitor must meet the following specifications:
        i. The portable analyzer must meet the instrument specifications provided in Section 3 of U.S. EPA Method 21, except that “methane” must replace all references to VOC.
        ii. The calibration gas must be methane, diluted to a nominal concentration of 500 parts per million in air.

V.A. EQUIPMENT SPECIFIC REQUIREMENTS – LANDFILL AND LANDFILL GAS COLLECTION SYSTEM

iii. To meet the performance evaluation requirements in Section 3.1.3 of U.S. EPA Method 21, the instrument evaluation procedures of Section 4.4 of U.S. EPA Method 21 must be used.
iv. The calibration procedures provided in Section 4.2 of U.S. EPA Method 21 must be followed immediately before commencing a surface monitoring survey.

C. The background concentration must be determined by moving the probe inlet upwind and downwind outside the boundary of the landfill at a distance of at least 30 meters from the perimeter wells.

D. Surface emission monitoring must be performed in accordance with Section 4.3.1 of U.S. EPA Method 21, except that the probe inlet must be placed within 5 to 10 centimeters of the ground. Monitoring must be performed during typical meteorological conditions.

E. Any reading of 500 parts per million or more of methane above background at any location must be recorded as a monitored exceedance and the following actions must be taken. As long as the specified actions listed in paragraphs (i) through (v) are taken, the exceedance is not a violation of Condition No. 1.
   i. The location of each monitored exceedance must be marked and the location recorded.
   ii. Cover maintenance or adjustments to the vacuum of the adjacent wells to increase the gas collection in the vicinity of each exceedance must be made and the location must be re-monitored within 10 calendar days of detecting the exceedance.
   iii. If the re-monitoring of the location shows a second exceedance, additional corrective action must be taken and the location must be monitored again within 10 days of the second exceedance. If the re-monitoring shows a third exceedance for the same location, the action specified in Paragraph 5 below must be taken, and no further monitoring of that location is required until the action specified in Paragraph v. below has been taken.
   iv. Any location that initially showed an exceedance but has a methane concentration less than 500 ppm methane above background at the 10-day re-monitoring specified in Paragraph i. or iii. above must be re-monitored 1 month from the initial exceedance. If the 1-month remonitoring shows a concentration less than 500 parts per million above background, no further monitoring of that location is required until the next quarterly monitoring period. If the 1-month remonitoring shows an exceedance, the actions specified in Paragraph iii. above or v. below must be taken.
   v. For any location where monitored methane concentration equals or exceeds 500 parts per million above background three times within a quarterly period, a new well or other collection device must be installed within 120 calendar days of the initial exceedance. An alternative remedy to the exceedance, such as upgrading the blower, header pipes or control device and a corresponding timeline for installation may be submitted to the SMAQMD Air Pollution Control Officer for approval.

[Basis: 40 CFR 60.753(d) and 40 CFR 60.755(c)]

V.A. EQUIPMENT SPECIFIC REQUIREMENTS – LANDFILL AND LANDFILL GAS COLLECTION SYSTEM

17. A program must be implemented to monitor for cover integrity and implement cover repairs as necessary on a monthly basis.
[Basis: 40 CFR 60.755(c)(5)]

RECORD KEEPING AND REPORTING REQUIREMENTS

18. The following records must be continuously maintained onsite for the most recent five year period and must be made available to the SMAQMD Air Pollution Control Officer upon request. Monthly and quarterly records must be made available within 30 days of the end of the reporting period.
[Basis: SMAQMD Rule 202]

Frequency	Information to be Recorded
At all times	A. The design capacity report which is the basis for this facility being subject to the provisions of 40 CFR 60.752(b), the current amount of solid waste in-place and the year-by-year waste acceptance rate. Off-site records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic formats are acceptable. **[Basis: 40 CFR 60.758(a)]** B. The maximum expected gas generation flow rate as calculated using the methodology in 40 CFR 60.755(a)(1). **[Basis: 40 CFR 60.758(b)(1)(i)]** C. The density of wells, horizontal collectors, surface collectors or other gas extraction devices determined using the procedures in 40 CFR 60.759(a)(1). **[Basis: 40 CFR 60.758(b)(1)(ii)]** D. Continuous record of either: i. The indication of landfill gas flow to the flares or the indication of landfill gas bypass flow, or ii. Monthly inspections of car-seals or lock-and-key configurations used to seal landfill gas bypass lines. **[Basis: 40 CFR 60.758(c)(2)]** E. Record of all collection system exceedances of the following operational standards at each individual well: i. Landfill gas collection header gauge pressure - Condition No. 10 ii. Landfill gas temperature - Condition No. 11 iii. Either nitrogen or oxygen level - Condition No. 11 iv. Surface methane concentrations - Condition No. 1

V.A. EQUIPMENT SPECIFIC REQUIREMENTS – LANDFILL AND LANDFILL GAS COLLECTION SYSTEM

Frequency	Information to be Recorded
	Where there is an exceedance, the reading in the subsequent month must be recorded and whether or not the second reading is an exceedance and the location of the exceedance. **[Basis: 40 CFR 60.758(e)]** F. Plot map showing each existing and planned landfill gas collector in the system and providing a unique identification location label for each collector. **[Basis: 40 CFR 60.758(d)]** G. Record of the installation date and location of all newly installed landfill gas collectors. **[Basis: 40 CFR 60.758(d)(1)]** H. If applicable, documentation of the nature, date of deposition, amount and location of asbestos-containing or non-degradable waste excluded from collection as well as any non-productive areas excluded from collection. **[Basis: 40 CFR 60.758(d)(2)]**
Monthly	I. Record of the following equipment operating parameters specified to be monitored at each individual well: i. Landfill gas collection header gauge pressure - Condition No. 14. ii Landfill gas temperature - Condition No. 15. iii. Either nitrogen or oxygen level - Condition No. 15. **[Basis: 40 CFR 60.758(c)]** J. Record of monitoring for cover integrity and any cover repairs implemented. **[Basis: SMAQMD Rule 202]**
Quarterly	K. If applicable, record of the following: i. Surface methane concentrations - Condition No. 16. **[Basis: 40 CFR 60.758(c)]**
Yearly	L. If applicable, record of the following: i. Surface methane concentrations - Condition No. 16. **[Basis: 40 CFR 60.758(c)]**

V.A. EQUIPMENT SPECIFIC REQUIREMENTS – LANDFILL AND LANDFILL GAS COLLECTION SYSTEM

19. A written report must be submitted to the SMAQMD Air Pollution Control Officer by the date indicated and must contain the following information.
[Basis: SMAQMD Rule 202]

Frequency	Information to be Submitted
Report by: July 30 of each year for the six month period: Jan. - June and February 28 of each year for the six month period: July - Dec. **[40 CFR 63.1980(a)]**	A. Value and length of time for exceedance of the following parameters at each individual well: i. Landfill gas collection header gauge pressure - Condition No. 10 (a) Identify instances when positive pressure occurs in efforts to avoid a fire. ii. Landfill gas temperature - Condition No. 11 iii. Either nitrogen or oxygen level - Condition No. 11 iv. Surface methane concentrations - Condition No. 1 **[Basis: 40 CFR 60.757(f)(1)]** B. If applicable, description and duration of all periods when the landfill gas stream is diverted from the flares through a landfill gas bypass line or the indication of bypass flow as specified to be monitored in Condition No. 12. **[Basis: 40 CFR 60.757(f)(2)]** C. If applicable, the results of visual inspection of the seal or closure mechanism on the landfill gas valve bypassing the flares, as specified to be monitored in Condition No. 13, to ensure that the valve is maintained in the closed position and that the landfill gas flow is not diverted through the bypass line. **[Basis: 40 CFR 60.757(f)(2)]** D. All periods when the collection system was not operating in excess of 5 days. **[Basis: 40 CFR 60.757(f)(4)]** E. The location of each exceedance of the 500 parts per million methane concentration limit pursuant to Condition No. 16 and the concentration recorded at each location for which an exceedance was recorded in the previous month. **[Basis: 40 CFR 60.757(f)(5)]** F. The date of installation and the location of each well or collection system expansion added pursuant to Condition Nos. 15(C) and 16(E)(5). **[Basis: 40 CFR 60.757(f)(6)]**

V.A. EQUIPMENT SPECIFIC REQUIREMENTS – LANDFILL AND LANDFILL GAS COLLECTION SYSTEM

Frequency	Information to be Submitted
Within 30 days of the landfill closing and waste acceptance cessation	G. Each owner or operator of a controlled landfill must submit a closure report within 30 days of waste acceptance cessation **[Basis: 40 CFR 60.757(d)]** H. The SMAQMD Air Pollution Control Officer may request additional information as may be necessary to verify that permanent closure has taken place in accordance with 40 CFR 258.60. **[Basis: 40 CFR 60.757(d)]** I. If a closure report has been submitted to the SMAQMD Air Pollution Control Officer, no additional wastes may be placed into the landfill without filing a notification of modification as described under 40 CFR 60.7(a)(4). **[Basis: 40 CFR 60.757(d)]**
30 days prior to the removal or cessation of control equipment operation	J. Each owner or operator of a controlled landfill must submit an equipment removal report 30 days prior to removal or cessation of operation of the control equipment. i. The equipment removal report must contain all of the following items: (a) A copy of the closure report submitted in accordance with 40 CFR 60.757(d). (b) A copy of the initial performance test report demonstrating that the 15 year minimum control period has expired. (c) Dated copies of three successive NMOC emission rate reports demonstrating that the landfill is no longer producing 50 megagrams or greater of NMOC per year. ii. The SMAQMD Air Pollution Control Officer may request such additional information as may be necessary to verify that all of the conditions for removal in 40 CFR 60.752(b)(2)(v) have been met. **[Basis: 40 CFR 60.757(e)]**

V.B. EQUIPMENT SPECIFIC REQUIREMENTS – APC LANDFILL GAS FLARE

A. EQUIPMENT DESCRIPTION: The information specified under this section is enforceable by the SMAQMD, U.S. EPA and the public.

The requirements specified under the following sections apply to the following equipment:

APC Landfill Gas Flare

P/O No.	24341
Manufacturer:	Perennial Energy
S/N:	FL-1754
Model:	FL-72-33-E
Type:	Enclosed
Heat Input:	18 MMBTU/hour at 500 BTU/cf
Capacity:	600 scfm
Pilot Capacity:	0.04 MMBtu/hr
Pilot Fuel:	LPG/Propane

B. EQUIPMENT SPECIFIC FEDERALLY ENFORCEABLE REQUIREMENTS: The requirements specified under this subsection are enforceable by the SMAQMD, U.S. EPA and the public.

EMISSION LIMITATION REQUIREMENTS:

1. Emissions from the Landfill Gas Flare must not exceed the following:
[Basis: SMAQMD Rule 202]

Pollutant	Emission Standard
VOC	2% of inlet NMOC (equivalent to a 98% NMOC destruction efficiency by weight) (A) Or 9.1 ppmvd at 3% O_2 measured as hexane
NOx (BACT)	0.05 lb/MMBTU (high heating value)
SOx	Sulfur content of the landfill gas combusted in the Landfill Gas Flare must not exceed 51.5 ppmv as H_2S
PM10/PM2.5 (BACT)	6.1 lb/MMcf of Landfill Gas (LFG)
CO	0.2 lb/MMBTU (high heating value)

(A) NMOC is non-methane organic compounds.

V.B. EQUIPMENT SPECIFIC REQUIREMENTS – APC LANDFILL GAS FLARE

2. Emissions from the Landfill Gas Flare must not exceed the following:
[Basis: SMAQMD Rule 202]

Pollutant	Emission Factors (A) (lb/MMcf)	Emission Limits (B)		
		lb/day	lb/quarter	lb/year
VOC	11.5	9.9	911	3,614
NOx	25	21.6	1,987	7,884
SOx	8.56	7.4	681	2,724
PM10	6.1	5.3	488	1,935
PM2.5	6.1	5.3	488	1,935
CO	100	86.4	7,949	31,536
Lead	NA	NA	NA	NA

(A) Emission factors for VOC, NOx, SOx, PM10 and PM2.5 are based on BACT. The CO emission factor is based on the manufacturer's guarantee. The PM2.5 emission factor is assumed to be equal to PM10. The SOx emission factor is based on a fuel sulfur content of 51.5 ppmv as H_2S.
(B) Emissions are based on 600 scfm landfill gas combustion rate, 24 hours/day, 92 days/quarter and 365 days/year.

3. Emissions from the pilot burner must not exceed the following:
[Basis: SMAQMD Rule 201]

Pollutant	Emission Factor (A) lb/Mgal	Emission Limits (B)		
		lb/day	lb/quarter	lb/year
VOC	1	0.01	1	4
NOx	13	0.1	13	50
SOx	1.5	0.02	1	6
PM10	0.7	0.01	1	3
PM2.5	0.7	0.01	1	3
CO	7.5	1.4	72	287
Lead	NA	NA	NA	NA

(A) Emission factors are from AP-42, Table 1.5-1 (7/08). The sulfur concentration (15 gr/100 scf) is based on Gas Processors Association Engineering Data Book (Ninth Edition, 1972), Figure 15-50 (GPA Liquefied Petroleum Gas Specifications, rev. 1979) for commercial propane.
(B) Based on the maximum capacity of 0.04 MMBtu/hr, 91,500 Btu/gal (AP-42, Table 1.5-1 (7-08) footnote a), 24 hours/day, 92 days/quarter, and the corresponding emission factors in this table.

V.B. EQUIPMENT SPECIFIC REQUIREMENTS – APC LANDFILL GAS FLARE

EQUIPMENT OPERATION AND MONITORING REQUIREMENTS:

4. The amount of landfill gas combusted by the Landfill Gas Flare must not exceed the following limit:
   [Basis: SMAQMD Rule 201]

Flare Identifier	Maximum Allowable Landfill Gas Combusted by Landfill Gas Flare (A) million cubic feet/quarter
Landfill Gas Flare	79.5

(A) Based on the flare operating at maximum capacity of 600 scfm, 24 hours/day and 92 days/quarter.

5. A sampling port, or other method approved by the SMAQMD Air Pollution Control Officer, must be installed at the inlet gas line to the Landfill Gas Flare. The sampling port must be located so that an accurate volume flow measurement can be performed.
   [Basis: SMAQMD Rule 201]

6. The Landfill Gas Flare exhaust sample ports must be permanent, accessible and located and constructed as per applicable U.S. EPA, CARB and U.S. OSHA requirements.
   [Basis: SMAQMD Rule 201]

7. A landfill gas flow rate measuring device that provides a measurement of landfill gas flow to the landfill gas flare must be installed, calibrated and maintained.
   A. The landfill gas flow rate measuring device must record the flow to landfill gas flare at least every 15 minutes.
   B. The owner or operator must submit to the SMAQMD Air Pollution Control Officer for approval a description of the landfill gas flow rate measuring device calibration procedure and schedule of calibration.
   [Basis: SMAQMD Rule 201, Section 303.2, CFR 60.756(b)(2)(i) and 17 CCR, Section 95469(b)(1)(A)]

8. The Landfill Gas Flare must be equipped with a temperature monitoring device.

   A. The thermocouple used to measure the flare temperature must be located at a distance that is greater than the distance equivalent to 0.6 seconds at the maximum flow rate downstream of the burner.
   B. The temperature monitoring device must be equipped with a continuous recorder.
   C. The temperature monitoring device must have an accuracy of ±1 percent of the temperature being measured expressed in degrees Celsius or ±0.5 degrees C, whichever is greater.
   D. The temperature monitoring device is not precluded from expressing measurements in degrees Fahrenheit as long as the aforementioned accuracy is met.
   E. The owner or operator must submit to the SMAQMD Air Pollution Control Officer for approval a description of the temperature monitoring device calibration procedure and

V.B. EQUIPMENT SPECIFIC REQUIREMENTS – APC LANDFILL GAS FLARE

schedule of calibration.
[Basis: SMAQMD Rule 201 and 40 CFR 60.756(B)(1)]

9. The Landfill Gas Flare must operate at a minimum combustion zone temperature equal to the 3-hour average temperature (measured by the thermocouple specified in Condition No. 7) as determined during the most recent complying source test minus 28 degrees C (50 degrees F)
[Basis: SMAQMD Rule 201]

(The data from the most recent source test is summarized in Attachment A indicating the 3-hour average temperature measured by the thermocouple in Condition No. 7)

A. The minimum combustion zone temperature must not be in effect for a maximum of five days in each calendar year when emissions testing is being performed to determine if the required NMOC destruction efficiency or NMOC exhaust concentration can be met at a lower combustion zone temperature.

RECORD KEEPING AND REPORTING REQUIREMENTS:

10. The following record must be continuously maintained on site for the most recent 5 year period, except as noted, and must be made available to the SMAQMD Air Pollution Control Officer upon request. Quarterly records must be made available within 30 days of the end of the reporting period.
[Basis: SMAQMD Rule 201 and 40 CFR 60.758]

Frequency	Information to be Recorded
At all times	A. The following information measured during the initial performance test must be maintained for the life of the Landfill Gas Flare. Records of subsequent tests or monitoring must be maintained for a minimum of 5 years. **[Basis: 40 CFR 60.758(b)]** i. The average combustion temperature of Landfill Gas Flare, measured at least every 15 minutes and averaged over the same time period as the performance test. **[Basis: 40 CFR 60.758(b)(2)(i)]** ii. The percent reduction of NMOC, determined as specified in 40 CFR 60.752(b)(2)(iii)(B), achieved by the Landfill Gas Flare. **[Basis: 40 CFR 60.758(b)(2)(ii)]** B. All 3 hour periods of operation during which Landfill Gas Flare average combustion temperature was below the limit established in Condition No. 8. **[Basis: 40 CFR 60.758(c)(1)(i)]** C. All deviations that occur in continuous parameter monitoring data:

V.B. EQUIPMENT SPECIFIC REQUIREMENTS – APC LANDFILL GAS FLARE

Frequency	Information to be Recorded
	[Basis: 40 CFR 63.1960] i. Deviation is defined as when 1 hour or more of the hours during the 3 hour block averaging period does not constitute a valid hour of data. **[Basis: 40 CFR 63.1965(b)]** ii. A valid hour of data must have measured values for at least three 15 minute monitoring periods within the hour. **[Basis: 40 CFR 63.1965(b)]** iii. Continuous parameter monitoring data collected during the following events are not to be included in any 3 hour block average: (a) Monitoring system breakdowns, repairs, calibration checks and zero (low level) and high level adjustments. (b) Startups. (c) Shutdowns. (d) Malfunctions **[Basis: 40 CFR 63.1975(a) - (d)]** D. Record of calibration reports for the temperature monitoring device. **[Basis: SMAQMD Rule 202]**
Quarterly	E. The amount of landfill gas consumed in the Landfill Gas Flare. (cubic feet/quarter) **[Basis: SMAQMD Rule 202]**

11. A written report must be submitted to the SMAQMD Air Pollution Control Officer annually by the date indicated and must contain the following information. **[Basis: SMAQMD Rule 201]**

Frequency	Information to be Submitted
Annually by: February 28 for the previous calendar year	A. All 3-hour periods of operation during which the average Landfill Gas Flare combustion temperature was more than 50 degrees F (28 degrees C) below the 3-hour average Landfill Gas Flare combustion temperature during the most recent performance test at which compliance with 40 CFR 60.752(b)(2)(iii) was determined. **[Basis: 40 CFR 60.758(c)(1)(i)]** B. All deviations that occur in continuous parameter monitoring data. **[Basis: 40 CFR 63.1960]** C. Description and duration of all periods when the Landfill Gas Flare was not operating for a period exceeding 1 hour and length of time Landfill Gas Flare was not operating. **[Basis: 40 CFR 60.757(f)(3)]**

V.B. EQUIPMENT SPECIFIC REQUIREMENTS – APC LANDFILL GAS FLARE

EMISSION TESTING REQUIREMENTS:

12. An emission test of the Landfill Gas Flare must be conducted each calendar year to demonstrate compliance with Condition Nos. 1, 2 and 8:

    A. Submit a source test plan to the SMAQMD Air Pollution Control Officer for approval at least 30 days before the source test is to be performed.

    B. Notify the SMAQMD Air Pollution Control Officer at least 7 days prior to the source test date.

    C. Submit the source test report to the SMAQMD Air Pollution Control Officer within 60 days from the completion of the source test.

    D. The source test must be conducted at the inlet and the exhaust of Landfill Gas Flare and must include a test for:
        i. Either
            (a) NMOC destruction efficiency, or
            (b) Total NMOC (ppmvd at 3% O2 measured as hexane, exhaust only)
        ii. Oxides of nitrogen (exhaust only)
        iii. Carbon monoxide (exhaust only)
        iv. Particulate Matter, PM10 (exhaust only)
        v. Hydrogen sulfide, H_2S (inlet only)
        vi. Combustion zone temperature
        vii. Landfill gas flow rate

    [Basis: SMAQMD Rule 201]

C. EQUIPMENT SPECIFIC NON-FEDERALLY ENFORECABLE REQUIREMENTS: The requirements specified under this section are enforceable by the SMAQMD only.

13. The Landfill Gas Flare must meet the following requirements:
    A. Achieve a methane destruction efficiency of at least 99 percent by weight.
    B. Be equipped with automatic dampers, an automatic shutdown device, a flame arrester and continuous recording temperature sensors.
    C. During restart or startup there must be a sufficient flow of propane or commercial natural gas to the burners to prevent unburned collected methane from being emitted to the atmosphere.
    D. The flare must be operated within the parameter ranges established during the initial or most recent source test.

    [Basis: 17 CCR Section 95464(b)(2)(A)]

14. The landfill must comply with the requirements of the Methane Emissions from Municipal Solid Waste Landfills Rule.

    [Basis: 17 CCR, Section 95460]

V.B. EQUIPMENT SPECIFIC REQUIREMENTS – APC LANDFILL GAS FLARE

15. The owner or operator must operate the gas collection and control system (flares) continuously except during maintenance, repairs and temporary shutdowns as allowed pursuant to Section 95454(e).
[Basis: 17 CCR, Section 95460(b)(1)(A)]

16. The owner or operator must conduct an annual source test for methane to show compliance with Condition No. 13.A using the test methods identified in Section 95471(f) of the Methane Emissions from Municipal Solid Waste Landfills Rule. The source test must be conducted no later than 45 days after the anniversary date of the initial source test. If the flare remains in compliance after three consecutive source tests the owner or operator may conduct the source test every three years. If a subsequent source test shows the gas collection and control system is out of compliance the source testing frequency will return to annual.
[Basis: 17 CCR, Section 95464(b)(4)(A)]

V.B. EQUIPMENT SPECIFIC REQUIREMENTS – APC LANDFILL GAS FLARE

ATTACHMENT A

Actual Flare Combustion Temperature Observed
During the Most Recent Landfill Gas Flare Source Test

Date of Test	Actual 3-Hour Average Flare Combustion Temperature Observed During Source Test degrees F	Minimum 3-Hour Flare Combustion Temperature to Demonstrate Continuous Compliance degrees F
12-13-2017	1,295	1,245
Historical Data ↓		
1-26-2016	1,452	1,402

VI. FUTURE EQUIPMENT SPECIFIC REQUIREMENTS – APC LANDFILL GAS FLARE (A/C 25596)

A. EQUIPMENT DESCRIPTION: The information specified under this section is enforceable by the SMAQMD, U.S. EPA and the public.

The requirements specified under the following sections will become applicable to the equipment listed below upon commencing operation:

APC Landfill Gas Flare

A/C No.	25596
Manufacturer:	Aereon or equivalent
Model:	CEB-350
Type:	Enclosed
Heat Input:	9.6 MMBTU/hour
Capacity:	400 scfm
Pilot Capacity:	0.1 MMBtu/hr
Pilot Fuel:	LPG/Propane

B. EQUIPMENT SPECIFIC FEDERALLY ENFORCEABLE REQUIREMENTS: The requirements specified under this subsection are enforceable by the SMAQMD, U.S. EPA and the public.

EMISSION LIMITATION REQUIREMENTS:

1. Emissions from the Landfill Gas Flare must not exceed the following:
   [Basis: SMAQMD Rule 202]

Pollutant	Emission Standard
VOC	98% NMOC destruction efficiency or 20 ppmvd NMOC @ 3% O2 as Hexane and use of a natural gas or LPG/propane fired pilot (A)
NOx	0.05 lb/MMBTU and use of natural gas or LPG/Propane fired pilot
SOx	0.04 lb/MMBTU and use of natural gas or LPG/Propane fired pilot
PM10/PM2.5	6.1 lb/MMcf and use of natural gas or LPG/propane fired pilot
CO	0.15 lb/MMBTU and use of natural gas or LPG/propane fired pilot

(A) NMOC is non-methane organic compounds.

VI. FUTURE EQUIPMENT SPECIFIC REQUIREMENTS – APC LANDFILL GAS FLARE (A/C 25596)

2. Emissions from the Landfill Gas Flare must not exceed the following:
[Basis: SMAQMD Rule 202]

Pollutant	Emission Factors (A) (lb/MMcf)	Emission Limits (B)		
		lb/day	lb/quarter	lb/year
VOC	22.0	12.7	1,168	4,636
NOx	20	11.5	1,058	4,198
SOx	16	9.2	846	3,358
PM10	6.1	3.5	322	1,278
PM2.5	6.1	3.5	322	1,278
CO	60	34.6	3,183	12,629

(A) Emission factors for VOC, NOx, SOx, CO, PM10 and PM2.5 are based on BACT. Emission factors in lb/MMBtu were converted to lb/MMcf based on a landfill gas heat content of 400 Btu/scf. The VOC emission factor was converted from 20 ppmvd @ 3% O2 as hexane using a landfill gas F-Factor of 10,509 dscf/MMBtu (avg. of three runs from source test performed on flare permitted under P/O 24341 on 1/26/16) and landfill gas heat content of 400 Btu/scf.
(B) Emissions are based on 400 scfm landfill gas combustion rate, 24 hours/day, 92 days/quarter and 365 days/year.

3. Emissions from the pilot burner must not exceed the following:
[Basis: SMAQMD Rule 201]

Pollutant	Emission Factor (A) lb/Mgal	Emission Limits (B)		
		lb/day	lb/quarter	lb/year
VOC	1	0.0	2	10
NOx	13	0.3	31	124
SOx	1.5	0.0	4	14
PM10	0.7	0.0	2	7
PM2.5	0.7	0.0	2	7
CO	7.5	0.2	18	72

(A) Emission factors are from AP-42, Table 1.5-1 (7/08). The sulfur concentration (15 gr/100 scf) is based on Gas Processors Association Engineering Data Book (Ninth Edition, 1972), Figure 15-50 (GPA Liquefied Petroleum Gas Specifications, rev. 1979) for commercial propane.
(B) Based on the maximum capacity of 0.1 MMBtu/hr, 91,500 Btu/gal (AP-42, Table 1.5-1 (7-08) footnote a), 24 hours/day, 92 days/quarter, and the corresponding emission factors in this table.

VI. FUTURE EQUIPMENT SPECIFIC REQUIREMENTS – APC LANDFILL GAS FLARE (A/C 25596)

EQUIPMENT OPERATION AND MONITORING REQUIREMENTS:

4. The amount of landfill gas combusted by the Landfill Gas Flare must not exceed the following limit:
   [Basis: SMAQMD Rule 201]

Flare Identifier	Maximum Allowable Landfill Gas Combusted by Landfill Gas Flare (A) million cubic feet/quarter
Landfill Gas Flare	53.0

(A) Based on the flare operating at maximum capacity of 400 scfm, 24 hours/day and 92 days/quarter.

5. The sulfur content of the landfill gas combusted in the Landfill Gas Flare must not exceed 96.3 ppmv as H_2S.
   [Basis: SMAQMD Rules 201, Section 405 and 202, Section 301]

6. A sampling port, or other method approved by the SMAQMD Air Pollution Control Officer, must be installed at the inlet gas line to the Landfill Gas Flare. The sampling port must be located so that an accurate volume flow measurement can be performed.
   [Basis: SMAQMD Rule 201]

7. The Landfill Gas Flare exhaust sample ports must be permanent, accessible and located and constructed as per applicable U.S. EPA, CARB and U.S. OSHA requirements.
   [Basis: SMAQMD Rule 201]

8. A landfill gas flow rate measuring device that provides a measurement of landfill gas flow to the landfill gas flare must be installed, calibrated and maintained.
   A. The landfill gas flow rate measuring device must record the flow to landfill gas flare at least every 15 minutes.
   B. The owner or operator must submit to the SMAQMD Air Pollution Control Officer for approval a description of the landfill gas flow rate measuring device calibration procedure and schedule of calibration.
   [Basis: SMAQMD Rule 201, Section 303.2, CFR 60.756(b)(2)(i) and 17 CCR, Section 95469(b)(1)(A)]

9. The Landfill Gas Flare must be equipped with a temperature monitoring device.

   A. The thermocouple used to measure the flare temperature must be located at a distance that is greater than the distance equivalent to 0.6 seconds at the maximum flow rate downstream of the burner.
   B. The temperature monitoring device must be equipped with a continuous recorder.
   C. The temperature monitoring device must have an accuracy of ±1 percent of the temperature being measured expressed in degrees Celsius or ±0.5 degrees C,

VI. FUTURE EQUIPMENT SPECIFIC REQUIREMENTS – APC LANDFILL GAS FLARE (A/C 25596)

whichever is greater.

D. The temperature monitoring device is not precluded from expressing measurements in degrees Fahrenheit as long as the aforementioned accuracy is met.

E. The owner or operator must submit to the SMAQMD Air Pollution Control Officer for approval a description of the temperature monitoring device calibration procedure and schedule of calibration.

[Basis: SMAQMD Rule 201 and 40 CFR 60.756(B)(1)]

10. The Landfill Gas Flare must operate at a minimum combustion zone temperature equal to the 3-hour average temperature (measured by the thermocouple specified in Condition No. 7) as determined during the most recent complying source test minus 28 degrees C (50 degrees F)
[Basis: SMAQMD Rule 201]

(The data from the most recent source test is summarized in Attachment A indicating the 3-hour average temperature measured by the thermocouple in Condition No. 9)

A. The minimum combustion zone temperature must not be in effect for a maximum of five days in each calendar year when emissions testing is being performed to determine if the required NMOC destruction efficiency or NMOC exhaust concentration can be met at a lower combustion zone temperature.

RECORD KEEPING AND REPORTING REQUIREMENTS:

11. The following record must be continuously maintained on site for the most recent 5 year period, except as noted, and must be made available to the SMAQMD Air Pollution Control Officer upon request. Quarterly records must be made available within 30 days of the end of the reporting period.
[Basis: SMAQMD Rule 201 and 40 CFR 60.758]

Frequency	Information to be Recorded
At all times	A. The following information measured during the initial performance test must be maintained for the life of the Landfill Gas Flare. Records of subsequent tests or monitoring must be maintained for a minimum of 5 years. **[Basis: 40 CFR 60.758(b)]** i. The average combustion temperature of Landfill Gas Flare, measured at least every 15 minutes and averaged over the same time period as the performance test. **[Basis: 40 CFR 60.758(b)(2)(i)]** ii. The percent reduction of NMOC, determined as specified in 40 CFR 60.752(b)(2)(iii)(B), achieved by the Landfill Gas Flare. **[Basis: 40 CFR 60.758(b)(2)(ii)]** B. All 3-hour periods of operation during which Landfill Gas Flare average

VI. FUTURE EQUIPMENT SPECIFIC REQUIREMENTS – APC LANDFILL GAS FLARE (A/C 25596)

Frequency	Information to be Recorded
	combustion temperature was below the limit established in Condition No. 8. **[Basis: 40 CFR 60.758(c)(1)(i)]** C. All deviations that occur in continuous parameter monitoring data: **[Basis: 40 CFR 63.1960]** i. Deviation is defined as when 1 hour or more of the hours during the 3-hour block averaging period does not constitute a valid hour of data. **[Basis: 40 CFR 63.1965(b)]** ii. A valid hour of data must have measured values for at least three 15-minute monitoring periods within the hour. **[Basis: 40 CFR 63.1965(b)]** iii. Continuous parameter monitoring data collected during the following events are not to be included in any 3-hour block average: (a) Monitoring system breakdowns, repairs, calibration checks and zero (low level) and high level adjustments. (b) Startups. (c) Shutdowns. (d) Malfunctions **[Basis: 40 CFR 63.1975(a) - (d)]** D. Record of calibration reports for the temperature monitoring device. **[Basis: SMAQMD Rule 202]**
Quarterly	E. The amount of landfill gas consumed in the Landfill Gas Flare. (cubic feet/quarter) **[Basis: SMAQMD Rule 202]**

12. A written report must be submitted to the SMAQMD Air Pollution Control Officer annually by the date indicated and must contain the following information.
[Basis: SMAQMD Rule 201]

Frequency	Information to be Submitted
Annually by: February 28 for the previous calendar year	A. All 3-hour periods of operation during which the average Landfill Gas Flare combustion temperature was more than 50 degrees F (28 degrees C) below the 3-hour average Landfill Gas Flare combustion temperature during the most recent performance test at which compliance with 40 CFR 60.752(b)(2)(iii) was determined. **[Basis: 40 CFR 60.758(c)(1)(i)]** B. All deviations that occur in continuous parameter monitoring data. **[Basis: 40 CFR 63.1960]**

VI. FUTURE EQUIPMENT SPECIFIC REQUIREMENTS – APC LANDFILL GAS FLARE (A/C 25596)

Frequency	Information to be Submitted
	C. Description and duration of all periods when the Landfill Gas Flare was not operating for a period exceeding 1 hour and length of time Landfill Gas Flare was not operating. **[Basis: 40 CFR 60.757(f)(3)]**

EMISSION TESTING REQUIREMENTS:

13. An emission test of the Landfill Gas Flare must be conducted each calendar year to demonstrate compliance with Condition Nos. 1, 5 and 10:

    A. Submit a source test plan to the SMAQMD Air Pollution Control Officer for approval at least 30 days before the source test is to be performed.

    B. Notify the SMAQMD Air Pollution Control Officer at least 7 days prior to the source test date.

    C. Submit the source test report to the SMAQMD Air Pollution Control Officer within 60 days from the completion of the source test.

    D. The source test must be conducted at the inlet and the exhaust of Landfill Gas Flare and must include a test for:
        i. Either
            (a) NMOC destruction efficiency, or
            (b) Total NMOC (ppmvd at 3% O2 measured as hexane, exhaust only)
        ii. Oxides of nitrogen (exhaust only)
        iii. Carbon monoxide (exhaust only)
        iv. Particulate matter, PM10 (exhaust only)
        v. Hydrogen sulfide, H_2S (inlet only)
        vi. Combustion zone temperature
        vii. Landfill gas flow rate

    [Basis: SMAQMD Rule 201]

VI. FUTURE EQUIPMENT SPECIFIC REQUIREMENTS – APC LANDFILL GAS FLARE (A/C 25596)

C. EQUIPMENT SPECIFIC NON-FEDERALLY ENFORECABLE REQUIREMENTS: The requirements specified under this section are enforceable by the SMAQMD only.

14. The Landfill Gas Flare must meet the following requirements:
    A. Achieve a methane destruction efficiency of at least 99 percent by weight.
    B. Be equipped with automatic dampers, an automatic shutdown device, a flame arrester and continuous recording temperature sensors.
    C. During restart or startup there must be a sufficient flow of propane or commercial natural gas to the burners to prevent unburned collected methane from being emitted to the atmosphere.
    D. The flare must be operated within the parameter ranges established during the initial or most recent source test.
    [Basis: 17 CCR Section 95464(b)(2)(A)]

15. The landfill must comply with the requirements of the Methane Emissions from Municipal Solid Waste Landfills Rule.
    [Basis: 17 CCR, Section 95460]

16. The owner or operator must operate the gas collection and control system (flares) continuously except during maintenance, repairs and temporary shutdowns as allowed pursuant to Section 95454(e).
    [Basis: 17 CCR, Section 95460(b)(1)(A)]

17. The owner or operator must conduct an annual source test for methane to show compliance with Condition No. 14.A using the test methods identified in Section 95471(f) of the Methane Emissions from Municipal Solid Waste Landfills Rule. The source test must be conducted no later than 45 days after the anniversary date of the initial source test. If the flare remains in compliance after three consecutive source tests the owner or operator may conduct the source test every three years. If a subsequent source test shows the gas collection and control system is out of compliance the source testing frequency will return to annual.
    [Basis: 17 CCR, Section 95464(b)(4)(A)]

VI. FUTURE EQUIPMENT SPECIFIC REQUIREMENTS – APC LANDFILL GAS FLARE ___(A/C 25596)

ATTACHMENT A

Actual Flare Combustion Temperature Observed
During the Most Recent Landfill Gas Flare Source Test

Date of Test	Actual 3-Hour Average Flare Combustion Temperature Observed During Source Test degrees F	Minimum 3-Hour Flare Combustion Temperature to Demonstrate Continuous Compliance degrees F
Historical Data ↓		

VII. INSIGNIFICANT EMISSIONS UNITS

The following systems are considered insignificant emissions units and are not subject to equipment specific requirements. However, these units are required to comply with all applicable general requirements.

The permit holder may supplement, modify or remove insignificant emissions units without requesting a Title V permit modification as long as the basis for the insignificant emissions unit designation remains valid. The list of insignificant emissions units must be updated when a Title V permit modification occurs.

Process Description	**Basis for Determination of Insignificant Emissions Unit is made based on SMAQMD "List and Criteria", Part B, Section 5 modified April 2001.**
Vehicles used to transport passengers or freight	I. General criteria for insignificant activities. a. Not subject to a preconstruction permit.
Small internal combustion engines used for welders, compressors and generators.	II.B.2 Any piston-type IC engine with a manufacturer's maximum continuous rating of no more than 50 bhp.
Storage containers for liquefied or compressed gases	II.J Any equipment used exclusively for the storage of liquefied gases in unvented (except for emergency pressure-relief valves) pressure vessels.
Storage containers for diesel fuel, compressor oil or lubricants with a vapor pressure of 0.1 psia or less	II.H.1 Any equipment used exclusively for the storage of unheated organic material with: a. An initial boiling point of 302 degrees F or greater; or b. A vapor pressure of no more than 0.1 psia.
Storage containers for diesel fuel, compressor oil or lubricants with a vapor pressure of 1.5 psia or less and a storage capacity of 6076 gallons or less	II.H.3 Any equipment with a capacity of no more than 6,077 gallons used for the storage of unheated organic liquids with a vapor pressure of no more than 1.5 psia.

VIII. ACRONYMS, ABBREVIATIONS AND UNITS OF MEASURE

Acronyms, abbreviations and units of measure used in this permit are defined as follows:

ASTM
American Society for Testing and Materials

BACT
Best Available Control Technology.

CAA
The federal Clean Air Act.

CARB
California Air Resources Board.

CFC
Chloro-fluoro-carbons. A class of compounds responsible for destroying ozone in the upper atmosphere.

CFR
The Code of Federal Regulations. 40 CFR contains the implementing regulations for federal environmental statutes such as the Clean Air Act. Parts 50-99 of 40 CFR contain the requirements for air pollution programs.

CO
Carbon monoxide.

CO2
Carbon dioxide.

ERC
Emission reduction credit.

Federally Enforceable
All limitations and conditions which are enforceable by the Administrator of the U.S. EPA including those requirements developed pursuant to 40 CFR Part 51, Subpart I (NSR), Part 52.21 (PSD), Part 60 (NSPS), Part 61 (NESHAPs), Part 63 (HAP) and Part 72 (Permits Regulation, Acid Rain) including limitations and conditions contained in operating permits issued under a U.S. EPA approved program that has been incorporated into the California SIP.

NESHAP
National Emission Standards for Hazardous Air Pollutants (see 40 CFR Parts 61 and 63).

NOx
Nitrogen oxides.

VIII. ACRONYMS, ABBREVIATIONS AND UNITS OF MEASURE

NSPS
New Source Performance Standards. U.S. EPA standards for emissions from new stationary sources. Mandated by Title I, Section 111 of the federal Clean Air Act and implemented by 40 CFR Part 60 and SMAQMD Regulation 8.

NSR
New Source Review. A federal program for pre-construction review and permitting of new and modified sources of pollutants for which criteria have been established in accordance with Section 108 of the Federal Clean Air Act. Mandated by Title I of the federal Clean Air Act and implemented by 40 CFR Parts 51 and 52 and SMAQMD Rule 202. (Note: There are additional NSR requirements mandated by the California Clean Air Act.)

O2
Oxygen.

Offset Requirement
A New Source Review requirement to provide federally enforceable emission offsets for the emissions from a new or modified source. Applies to emissions of ROC, NOx, SO2 and PM10.

PM
Particulate matter.

PM10
Particulate matter with aerodynamic equivalent diameter of less than or equal to 10 microns.

PSD
Prevention of Significant Deterioration. A federal program for permitting new and modified sources of those air pollutants for which the SMAQMD is classified "attainment" of the National Air Ambient Quality Standards. Mandated by Title I of the federal Clean Air Act and implemented by 40 CFR Part 52.

ROC
Reactive organic compounds.

SIP
State Implementation Plan. CARB and SMAQMD programs and regulations approved by U.S. EPA and developed in order to attain the National Air Ambient Quality Standards. Mandated by Title I of the federal Clean Air Act.

SMAQMD
Sacramento Metropolitan Air Quality Management District.

SO2
Sulfur dioxide.

VIII. ACRONYMS, ABBREVIATIONS AND UNITS OF MEASURE

Title V
Title V of the federal Clean Air Act. Title V requires the SMAQMD to operate a federally enforceable operating permit program for major stationary sources and other specified sources.

TSP
Total suspended particulate.

U.S. EPA
The federal Environmental Protection Agency.

VOC
Volatile Organic Compounds.

UNITS OF MEASURE:

BTU	=	British Thermal Unit
cfm	=	cubic feet per minute
cm	=	centimeter
g	=	grams
gal	=	gallon
gpm	=	gallons per minute
hp	=	horsepower
hr	=	hour
lb	=	pound
in	=	inch
kg	=	kilogram
max	=	maximum
m2	=	square meter
min	=	minute
mm	=	millimeter
MM	=	million
ppmv	=	parts per million by volume
ppmw	=	parts per million by weight
psia	=	pounds per square inch, absolute
psig	=	pounds per square inch, gauge
quarter	=	calendar quarter
RVP	=	Reid vapor pressure
scfm	=	standard cubic feet per minute
yr	=	year