



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

**TITLE V PERMIT NO:
TV2006-10-02**

**PERMIT
ISSUED:**

January 25, 2007

**PERMIT
LAST AMENDED:**

December 31, 2009

**PERMIT
EXPIRES:**

January 25, 2012

PERMIT ISSUED TO:

Kiefer Landfill
Department of Waste Management &
Recycling
Municipal Services Agency
County of Sacramento
9850 Goethe Road
Sacramento, CA 95827

FACILITY LOCATION:

12701 Kiefer Boulevard
and Grantline Road
Sloughhouse, CA 95683

RESPONSIBLE OFFICIAL:

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NATURE OF BUSINESS:

Municipal Solid Waste Landfill

**STANDARD INDUSTRIAL
CLASSIFICATION (SIC):**

4953

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I. PERMIT SUMMARY

This permit shall 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.

Your 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	09-03-1998	Yes
SMAQMD Rule 102	Circumvention	05-15-1972	Yes
SMAQMD Rule 105	Emission Statements	04-20-1993	Yes
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)	02-24-2005	No
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)	04-26-2001	Yes
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)	07-01-2006	Yes (Title V provisions only)
SMAQMD Rule 306	Air Toxic Fees (not SIP approved)	03-27-2003	No
SMAQMD Rule 307	Clean Air Act Fees	09-26-2002	Yes

I. PERMIT SUMMARY (continued)

Citation	Description	Rule Adoption Date	Federally Enforceable ?
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 412	Stationary Internal Combustion Engines Located at Major Stationary Sources of NOx	06-01-1995	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)	05-24-2001	No
SMAQMD Rule 448	Gasoline Transfer into Stationary Storage Containers (SIP approved)	02-02-1995	Yes
SMAQMD Rule 448	Gasoline Transfer into Stationary Storage Containers (not SIP approved)	02-26-2009	No
SMAQMD Rule 449	Transfer of Gasoline into Vehicle Fuel Tanks (SIP approved)	09-26-2002	Yes
SMAQMD Rule 449	Transfer of Gasoline into Vehicle Fuel Tanks (not SIP approved)	02-26-2009	No

I. PERMIT SUMMARY (continued)

Citation	Description	Rule Adoption Date	Federally Enforceable ?
SMAQMD Rule 602	Breakdown Conditions: Emergency Variance	11-29-1983	No
SMAQMD Rule 701	Emergency Episode Plan	05-27-1999	Yes
SMAQMD Rule 801	New Source Performance Standards (not SIP approved)	03-27-2008	No
SMAQMD Rule 904	Airborne Toxic Control Measures (not SIP approved)	03-27-2008	No
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 (A)	Yes (B)
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 (A)	Yes (B)

(A) U.S. EPA promulgation date.

(B) Not applicable to the five landfill gas fueled prime power IC engines operating at the landfill.

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.

II. FACILITY DESCRIPTION

Title V Permit Background

<u>Permit Action</u>	<u>Date Issued</u>	<u>Title V Permit No.</u>
Initial Title V Federal Operating Permit issued	01-25-2002	TV1996-10-01
1st Administrative Amendment	11-12-2002	TV1996-10-01A
1st Significant Modification	08-03-2004	TV1996-10-02
2nd Significant Modification	07-05-2005	TV1996-10-03
1st Permit Renewal	01-25-2007	TV2006-10-01

Current Permitting Action

This permit action is the first significant modification of the renewed Title V Federal Operating Permit TV2006-10-01, issued January 25, 2007.

This modified permit is given the permit number TV2006-10-02.

Facility Description

The following facility description is for informational purposes only and does not contain any applicable federally enforceable requirements.

Kiefer Landfill is an active municipal solid waste landfill located approximately 15 miles east of the City of Sacramento near the intersection of Kiefer Boulevard and Grant Line Road. The site is operated by the County of Sacramento, Municipal Services Agency, Department of Waste Management & Recycling (DWMMR).

The landfill footprint, which is comprised of modules M1, M-1L and M2 through M11, is approximately 660 acres. The module M1 has no bottom liner. All other modules have or will have bottom liners and leachate collection systems. The entire landfill mass will be subject to landfill gas control similar to the system that exists in Module M1 and M1-L. The Kiefer Landfill began accepting waste into Module M1 in 1967 and began accepting waste into Module M1-L in 1994. The Module M2 began receiving waste in 2003. The final module, Module M11, is expected to complete filling operations between the years 2035 and 2060.

Decomposing waste encapsulated within the landfill produces a gas by-product that is primarily composed of methane, carbon dioxide and nonmethane 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. At the Kiefer Landfill, the landfill gas is collected and sent to a set of two flares for destruction and/or to a set of five internal combustion (IC) engines where it is used as a fuel for the IC engines. The IC engines drive electrical generators that produce approximately 15 megawatts of electricity.

II. FACILITY DESCRIPTION (continued)

During operation of the flares and IC engines various combustion related air pollutants are released into the atmosphere. Additional particulate matter emissions are generated from construction and operation of the landfill which includes vehicle traffic on paved and unpaved roads and the handling of soil cover material.

Additional sources of air pollutants at the facility include:

1. A trommel screen driven by a diesel fueled IC engine used to process greenwaste for landfill cover.
2. A greenwaste grinder driven by a diesel fueled IC engine used to process greenwaste for landfill cover.
3. A diesel fueled auxiliary IC engine on a street sweeper that drives the vacuum system and brushes.
4. Gasoline storage and dispensing equipment.

III. FEDERALLY ENFORCEABLE GENERAL REQUIREMENTS

TITLE V PERMIT MODIFICATIONS AND RENEWAL

1. The owner or operator of a stationary source shall 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 301.4]
2. The owner or operator of a stationary source shall submit to the SMAQMD Air Pollution Control Officer a complete Title V permit application for minor Title V permit modification when applicable. The application shall 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 301.6]
3. The owner or operator of a stationary source shall submit to the SMAQMD Air Pollution Control Officer a complete Title V permit application for Significant Title V permit modification when applicable. The application shall 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 301.7]
4. The applicant shall submit to the SMAQMD Air Pollution Control Officer timely updates to the Title V application as new applicable requirements become applicable to the source.
[Basis: SMAQMD Rule 207 Section 302.1]
5. The applicant shall 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 applicant shall 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 shall contain certification by a responsible official. The certification shall 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 shall have a 5-year fixed term from the date of issuance. The Title V permit shall 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 SMAQMD Rule 207 Sections 411 or 412, 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]

PERMIT COMPLIANCE

10. The permittee must comply with all conditions of the Title V permit.

[Basis: SMAQMD Rule 207 Section 305.1(k)(1)]

11. It shall not be a defense for a permittee 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)]

12. This Title V permit may be modified, revoked, reopened and reissued or terminated for cause.

[Basis: SMAQMD Rule 207 Section 305.1(k)(3)]

13. The permittee shall 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 permittee shall 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 permittee may furnish such records directly to the EPA along with a claim of confidentiality.

[Basis: SMAQMD Rule 207 Section 305.1(k)(4)]

14. 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 shall also be a violation of SMAQMD Rule 207.

[Basis: SMAQMD Rule 207 Section 305.1(k)(5)]

15. A pending Title V permit action (e.g. a proposed permit revision) or notification of anticipated noncompliance does not stay any permit condition.

III. FEDERALLY ENFORCEABLE GENERAL REQUIREMENTS

[Basis: SMAQMD Rule 207 Section 305.1(k)(6)]

16. 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)]

17. Upon presentation of credentials and other documents as may be required by law, the permittee shall 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 or 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 Title V 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 Title V 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 Title V permit conditions or applicable federal requirements.

[Basis: SMAQMD Rule 207 Section 413.1]

REPORTS AND RECORDKEEPING

18. Monitoring Report

- A. The permittee shall 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.
 - i. All instances of deviations from Title V permit monitoring conditions must be clearly identified in such reports.
- B. The reporting periods for this permit shall be January 01 through June 30 and July 01 through December 31. The reports shall be submitted by July 30 and January 30 following each reporting period respectively.
- C. All required reports must be certified by the responsible official and shall 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

19. Compliance Certification Report

- A. The permittee shall 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 shall be January 01 through December 31. The report shall be submitted by January 30 following the reporting period.
- C. All required reports must be certified by the responsible official and shall 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 Report shall 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;
 - iv. Such other facts as the SMAQMD Air Pollution Control Officer may require to determine the compliance status of the source; and
 - 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]

- 20. The permittee shall 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 permittee shall 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]

III. FEDERALLY ENFORCEABLE GENERAL REQUIREMENTS

21. 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

22. Except as otherwise provided in SMAQMD Rule 401 Section 100, a person shall 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]

PARTICULATE MATTER

23. A person shall 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 shall 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]

24. Except as otherwise provided in SMAQMD Rule 406, a person shall 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).

III. FEDERALLY ENFORCEABLE GENERAL REQUIREMENTS

[Basis: SMAQMD Rule 404 Section 301]

25. A person shall 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

26. A person shall 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]

27. Except as otherwise provided in SMAQMD Rule 420 Section 110, a person shall 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]

ARCHITECTURAL COATING

28. Any coating applied to stationary structures and their appurtenances, to mobile homes, to pavements, or to curbs, shall meet the requirements of SMAQMD Rule 442.

[Basis: SMAQMD Rule 442 (09-05-1996 version)]

29. All VOC-containing materials shall 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 (09-05-1996 version)]

30. A person shall not use volatile organic compounds for the cleanup of spray equipment unless equipment for collection of the cleaning compounds and minimizing its evaporation to the atmosphere is used.

[Basis: SMAQMD Rule 442 Section 305 (09-05-1996 version)]

31. The permittee shall 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 (09-05-1996 version) and SMAQMD Rule 207 Section 305]

III. FEDERALLY ENFORCEABLE GENERAL REQUIREMENTS

COMPLIANCE

32. Compliance with the conditions of the Title V permit shall be deemed compliance with all applicable requirements identified in the Title V permit.

[Basis: SMAQMD Rule 207 Section 307]

EQUIPMENT BREAKDOWNS

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

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

- i. An emergency occurred and that the permittee 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 permittee took all reasonable steps to minimize levels of emissions that exceeded the emission standards, or other requirements in the Title V permit.
- iv. The permittee submitted notice of the emergency to the SMAQMD Air Pollution 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 permittee seeking to establish the occurrence of an emergency has the burden of proof.

[Basis: SMAQMD Rule 207 Section 414]

34. The permittee shall 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 shall be made at the commencement of the next regular working day. The notification shall 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

III. FEDERALLY ENFORCEABLE GENERAL REQUIREMENTS

35. The fee for: (1) the issuance of an initial Title V operating permit, (2) the renewal and/or inspection of a Title V operating permit, (3) the modification of a Title V operating permit or (4) an administrative Title V permit amendment shall be based on the actual hours spent by the SMAQMD staff in evaluating the application and processing the operating permit. The fee shall be assessed in accordance with the hourly rate established in Section 308.12 of SMAQMD Rule 301.

[Basis: SMAQMD Rule 207 Section 305.7 and SMAQMD Rule 301 Section 313]

36. After the provisions for granting permits as set forth in SMAQMD Rule 207 have been complied with, the permittee 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 shall be increased by one half the amount and the applicant/permittee shall 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/revoked and the applicant/permittee will be notified by mail.

[Basis: SMAQMD Rule 207 Section 305.7]

CLEAN AIR ACT FEES

37. 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 permittee, operating any major stationary source of ROC or NO_x, shall 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

38. The permittee, when operating any stationary source that emits 25 tons or more per year of ROC or NO_x, shall annually provide the SMAQMD Air Pollution Control Officer with a written emission statement showing actual emissions of ROC and NO_x from that source.

[Basis: SMAQMD Rule 105]

ACCIDENTAL RELEASES

39. If subject to Section 112(r) of the federal Clean Air Act of 1990 and 40 CFR Part 68, the permittee shall 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) of the federal Clean Air Act of 1990.

[Basis: 40 CFR Part 68]

40. If subject to Section 112(r) of the federal Clean Air Act of 1990 and 40 CFR Part 68, the permittee shall comply with the requirements of 40 CFR Part 68 no later than the latest of the following dates as provided in 68.10(a):

III. FEDERALLY ENFORCEABLE GENERAL REQUIREMENTS

- A. June 21, 1999,
- B. Three years after the date on which a regulated substance is first listed under 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]

41. If subject to Section 112(r) of the federal Clean Air Act of 1990 and 40 CFR Part 68, the permittee shall 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]

42. If subject to Section 112(r) of the federal Clean Air Act of 1990 and 40 CFR Part 68, the permittee shall annually certify compliance with all applicable requirements of Section 112(r) of the federal Clean Air Act of 1990 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)

43. Persons opening appliances containing CFCs for maintenance, service, repair or disposal must comply with the required practices pursuant to 40 CFR 82.156.

[Basis: 40 CFR Part 82 Subpart F]

44. 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 82.158.

[Basis: 40 CFR Part 82 Subpart F]

45. Persons performing maintenance, service, repair or disposal of appliances containing CFCs must be certified by an approved technician certification program pursuant to 40 CFR 82.161.

[Basis: 40 CFR Part 82 Subpart F]

STARTUP, SHUTDOWN AND MALFUNCTION PLAN

46. The permittee shall develop and implement a written Startup, Shutdown and Malfunction (SSM) Plan as specified in 40 CFR 63.6(e). The five landfill gas fueled prime power IC engines are exempt from the requirement to be included in a Startup, Shutdown and Malfunction (SSM) Plan provided that the fuel used for the IC engines is "treated" landfill gas.

[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.

SMAQMD PERMIT RENEWAL:

2. Permits to Operate issued to the permittee, pursuant to SMAQMD Rule 201 (non-Title V permits to operate), shall be renewed annually on January 25 and upon payment of the permit renewal fee established pursuant to SMAQMD Rule 301.
3. The SMAQMD Air Pollution Control Officer shall review every 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 shall 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 shall revise the conditions, if such conditions are not consistent, in accordance with all applicable rules and regulations.

GENERAL

4. The SMAQMD Air Pollution Control Officer and/or authorized representatives, upon the presentation of credentials shall 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, and
 - 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, and
 - C. To inspect any equipment, operation, or method required in this Permit to Operate, and
 - D. To sample emissions from the source or require samples to be taken.
5. Legible copies of all SMAQMD local Authorities to Construct and Permits to Operate shall be maintained on the premises with the equipment.

EQUIPMENT OPERATION:

6. The equipment shall be properly maintained.
7. 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 Codes of the State of California or the

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Rules and Regulations of the SMAQMD.

EQUIPMENT BREAKDOWNS:

8. The permittee shall 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 shall be made at the commencement of the next regular working day. The notification shall identify the time, specific location, equipment involved, and to the extent known the cause(s) of the occurrence.
9. Upon notification of the breakdown condition, the SMAQMD Air Pollution Control Officer shall 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.
10. 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 shall be 96 hours) shall constitute a violation of any applicable emission limitation or restriction prescribed by these 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 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 shall be 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.
11. An occurrence which constitutes a breakdown condition shall 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 shall be 96 hours), unless an emergency variance has been obtained.
12. 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 shall be 96 hours) the owner or operator may, in lieu of shutdown, request the

IV. LOCAL (NON-FEDERALLY ENFORCEABLE) GENERAL REQUIREMENTS

SMAQMD Air Pollution Control Officer to commence the emergency variance procedure set forth in SMAQMD Rule 602 Section 304.

13. No emergency variance shall 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 and Safety Code Sections 42352 and 42353 have been met; and
 - D. The continued operation in a breakdown condition will not interfere with the attainment or maintenance of the national ambient air quality standards.
14. 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 shall govern any further proceedings conducted under this section.
15. An emergency variance shall 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.
16. Within one week after a breakdown condition has been corrected, the owner or operator shall 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.
17. The burden of proof shall be 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 shall undertake appropriate enforcement action.
18. Any failure to comply, or comply in a timely manner, with the reporting requirements established in SMAQMD Rule 602 Sections 301.1 and 401 shall constitute a separate violation of SMAQMD Rule 602.
19. It shall 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

IV. LOCAL (NON-FEDERALLY ENFORCEABLE) GENERAL REQUIREMENTS

that an occurrence is a breakdown condition.

20. 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.
21. 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 federally enforceable. A variance granted under SMAQMD Rules 601 or 602 must be reported as a deviation under this Title V permit.

ARCHITECTURAL COATINGS

22. The permittee shall comply with the requirements of SMAQMD Rule 466 Solvent Cleaning when using volatile organic compounds for the cleanup of architectural coating application equipment.
[SMAQMD Rule 466 Sections 301 and 302 (09-25-2008 version)]

V. 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. 17821(Rev01) (the permit number is for reference purposes only - not federally enforceable)

1. Landfill area
2. Perimeter wells
3. Interior wells
4. Piping to collect landfill gas from perimeter and interior wells and direct it to the flare or landfill gas treatment system
5. (2) Blowers, 125 HP each

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

EMISSION LIMITATION REQUIREMENTS

1. The landfill gas collection system shall 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)]

EQUIPMENT OPERATION REQUIREMENTS

2. The maximum design capacity of the Kiefer Landfill shall not exceed 117.4 million cubic yards.
[Basis: SMAQMD Rule 202]
3. The landfill gas collection system shall be designed to handle the maximum expected gas flow rate from that portion of the landfill that warrants control over the intended use period of the landfill gas control system.
[Basis: 40 CFR 60.752(b)(2)(ii)(A)(1)]
4. Landfill gas shall 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 if active or 2 years or more if closed or at final grade.
[Basis: 40 CFR 60.753(a)]
5. Landfill gas shall be collected at a sufficient extraction rate.
[Basis: 40 CFR 60.752(b)(2)(ii)(A)(3)]

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6. The landfill gas collection system shall be designed to minimize off-site migration of subsurface landfill gas.

[Basis: 40 CFR 60.752(b)(2)(ii)(A)(4)]

7. The landfill gas collection system shall operate such that all collected gases are vented to the landfill gas flare or landfill gas treatment system. In the event the collection or control system is inoperable, the gas mover system shall be shut down and all valves in the collection and control system contributing to venting of the gas to the atmosphere shall be closed within 1 hour.

[Basis: 40 CFR 60.753(e)]

8. A sampling port and a temperature measuring device or an access port for temperature measurements shall be installed at each landfill gas wellhead.

[Basis: 40 CFR 60.756(a)]

9. The landfill gas collection system shall 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 shall record instances when positive pressure occurs in efforts to avoid a fire.

B. Use of a geomembrane or synthetic cover.

C. A decommissioned well.

[Basis: 40 CFR 60.753(b)]

10. A. Except as provided in Condition No. 10.B., the landfill gas collection system shall 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.

B. The nitrogen and oxygen concentration limits shall not apply to those wells listed in Attachment A provided that the oxygen concentration in the landfill gas **at the main header** does not exceed 5% O₂ by volume (dry basis) and the methane concentration in the landfill gas **at the main header** is not less than 35% methane by volume (dry basis).

C. The owner or operator may establish a higher operating temperature, nitrogen concentration or oxygen concentration at a particular well. A higher operating value demonstration shall 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)]

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

MONITORING AND CORRECTIVE ACTION REQUIREMENTS

11. A device shall be installed that records flow to or bypass of the flare and landfill gas treatment system. The owner or operator shall either:
 - A. Install, calibrate and maintain a landfill gas flow rate measuring device that shall record the flow to the flare and landfill gas treatment system 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)]
12. If applicable, a visual inspection of the seal or closure mechanism on the landfill gas bypass valve for the flare or landfill gas treatment system shall 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)]
13. Gauge pressure shall be measured monthly in the landfill gas collection header at each individual wellhead.
 - A. If a positive pressure exists, action shall be initiated to correct the exceedance within 5 calendar days, except for the three conditions allowed under Condition No. 9. If negative pressure cannot be achieved without excess air infiltration within 15 calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within 120 days of the initial measurement of positive pressure.
 - B. Any attempted corrective measure shall not cause exceedances of other operational or performance standards.
[Basis: 40 CFR 60.756(a)(1)]
14. A. Temperature and either the nitrogen concentration (%) or the oxygen concentration (%) shall be measured monthly for each interior well.
 - i. The nitrogen concentration shall be determined using U.S. EPA Method 3C unless an alternative method is established as allowed by 40 CFR 60.752(b)(2)(i).
 - ii. The oxygen concentration shall 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).
 - iii. If a well exceeds the operating parameters stated in Condition No. 10, action shall 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 shall be expanded to correct the exceedance within 120

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

days of the initial exceedance.

- iv. Any attempted corrective measure shall 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), 40 CFR 60.756(a)(3)]

- B. Oxygen concentration (%) and methane concentration (%) shall be measured monthly at the landfill gas main header.

[Basis: SMAQMD Rule 202]

- 15. Surface concentrations of methane shall be measured quarterly around the 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 shall 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.

- A. Each area shall 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 shall meet the following specifications:

- i. The portable analyzer shall meet the instrument specifications provided in Section 3 of U.S. EPA Method 21, except that “methane” shall replace all references to VOC.

- ii. The calibration gas shall be methane, diluted to a nominal concentration of 500 parts per million in air.

- 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 shall be used.

- iv. The calibration procedures provided in Section 4.2 of U.S. EPA Method 21 shall be followed immediately before commencing a surface monitoring survey.

- C. The background concentration shall 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 shall be performed in accordance with Section 4.3.1 of U.S. EPA Method 21, except that the probe inlet shall be placed within 5 to 10

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

centimeters of the ground. Monitoring shall be performed during typical meteorological conditions.

- E. Any reading of 500 parts per million or more of methane above background at any location shall be recorded as a monitored exceedance and the following actions shall be taken. As long as the specified actions listed in paragraphs i. through v. below are taken, the exceedance is not a violation of Condition No. 1.
 - i. The location of each monitored exceedance shall 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 shall be made and the location shall 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 shall be taken and the location shall 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 v. below shall 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 ii. or iii. above shall be re-monitored 1 month from the initial exceedance. If the 1-month re-monitoring 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 re-monitoring shows an exceedance, the actions specified in paragraph iii. above or v. below shall 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 shall 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), 40 CFR 60.755(c)]

- 16. A program shall be implemented to monitor for cover integrity and implement cover repairs as necessary on a monthly basis.

[Basis: 40 CFR 60.755(c)(5)]

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

RECORDKEEPING AND REPORTING REQUIREMENTS

17. The following records shall be continuously maintained onsite for the most recent five year period and shall be made available to the SMAQMD Air Pollution Control Officer upon request. Monthly and quarterly records shall be made available within 30 days of the end of the month and calendar quarter respectively.

Frequency	Information to be recorded
At all times	<p>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)]</p> <p>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)]</p> <p>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)]</p> <p>D. Continuous record of either:</p> <ul style="list-style-type: none"> i. The indication of landfill gas flow to the flare or landfill gas treatment system 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)] <p>E. Record of all collection system exceedances of the following operational standards at each individual well:</p> <ul style="list-style-type: none"> i. Landfill gas collection wellhead gauge pressure - Condition No. 9. ii. Landfill gas temperature - Condition No. 10. iii. Either nitrogen or oxygen level - Condition No. 10.

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

Frequency	Information to be recorded
	<p>iv. Surface methane concentrations - Condition No. 1.</p> <p>Where there is an exceedance, the reading in the subsequent month shall be recorded and whether or not the second reading is an exceedance and the location of the exceedance. [Basis: 40 CFR 60.758(e)]</p> <p>F. Record of all collection system exceedances of the following operational standards at the landfill gas main header:</p> <p>i. Landfill gas oxygen concentration - Condition No. 10.B.</p> <p>ii. Landfill gas methane concentration - Condition No. 10.B. [Basis: SMAQMD Rule 202]</p> <p>G. 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)]</p> <p>H. Record of the installation date and location of all newly installed landfill gas collectors. [Basis: 40 CFR 60.758(d)(1)]</p> <p>I. 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)]</p>
Monthly	<p>J. Record of the following equipment operating parameters specified to be monitored at each individual well:</p> <p>i. Landfill gas well head gauge pressure - Condition No. 13.</p> <p>ii. Landfill gas temperature - Condition No. 14.</p> <p>iii. Either nitrogen or oxygen level - Condition No. 14. [Basis: 40 CFR 60.758(c)]</p> <p>K. Record of monitoring for cover integrity and any cover repairs implemented.</p>

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

Frequency	Information to be recorded
	<p>[Basis: SMAQMD Rule 202]</p> <p>L. Record of the following equipment operating parameters specified to be monitored at the landfill gas main header:</p> <p>i. Landfill gas oxygen concentration - Condition No. 14.B.</p> <p>ii. Landfill gas methane concentration - Condition No. 14.B.</p> <p>[Basis: SMAQMD Rule 202]</p>
Quarterly	<p>M. Record of the following:</p> <p>1. Surface methane concentrations - Condition No. 15.</p> <p>[Basis: 40 CFR 60.758(c)]</p>

18. A written report shall be submitted to the SMAQMD Air Pollution Control Officer by the date indicated and shall contain the following information.

Frequency	Information to be submitted
<p>Report by:</p> <p>(1) July 30 of each year for the six month period: Jan. – June</p> <p>and</p> <p>(2) January 30 of each year for the six month period: July - Dec.</p> <p>[Basis: 40 CFR</p>	<p>A. Value and length of time for exceedance of the following parameters at each individual well:</p> <p>i. Landfill gas well head gauge pressure - Condition No. 9.</p> <p>a. Identify instances when positive pressure occurs in efforts to avoid a fire.</p> <p>ii. Landfill gas temperature - Condition No. 10.</p> <p>iii. Either nitrogen or oxygen level - Condition No. 10.</p> <p>iv. Surface methane concentrations - Condition No. 1.</p> <p>[Basis: 40 CFR 60.757(f)(1)]</p> <p>B. Value and length of time for exceedance of the following parameters at the landfill gas main header:</p> <p>i. Landfill gas oxygen concentration - Condition No. 10.B.</p> <p>ii. Landfill gas methane concentration - Condition No. 10.B.</p>

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

Frequency	Information to be submitted
63.1980(a)]	<p>C. If applicable, description and duration of all periods when the landfill gas stream is diverted from the landfill gas flares or landfill gas treatment system through a landfill gas bypass line or the indication of bypass flow as specified to be monitored in Condition No. 11. [Basis: 40 CFR 60.757(f)(2)]</p> <p>D. If applicable, the results of visual inspection of the seal or closure mechanism on the landfill gas valve bypassing the landfill gas flare or landfill gas treatment system, as specified to be monitored in Condition No. 12, 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)]</p> <p>E. Description, date and duration of all periods when the control device was not operating for a period of one hour and the length of time the control device was not operating. [Basis: 40 CFR 60.757(f)(3)]</p> <p>F. All periods when the landfill gas collection system was not operating in excess of 5 days. [Basis: 40 CFR 60.757(f)(4)]</p> <p>G. The location of each exceedance of the 500 parts per million methane concentration limit, pursuant to Condition No. 15, and the concentration recorded at each location for which an exceedance was recorded in the previous month. [Basis: 40 CFR 60.757(f)(5)]</p> <p>H. The date of installation and the location of each well or collection system expansion added, pursuant to Condition Nos. 14.A.iii and 15.E.v. [Basis: 40 CFR 60.757(f)(6)]</p>
Within 30 days of the landfill closing and waste acceptance cessation	<p>I. Each owner or operator of a controlled landfill shall submit a closure report within 30 days of waste acceptance cessation</p> <p>J. 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.</p> <p>K. If a closure report has been submitted to the SMAQMD Air Pollution</p>

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

Frequency	Information to be submitted
	<p>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)]</p>
<p>30 days prior to the removal or cessation of control equipment operation</p>	<p>L. Each owner or operator of a controlled landfill shall submit an equipment removal report 30 days prior to removal or cessation of operation of the control equipment.</p> <p>M. The equipment removal report shall contain all of the following items:</p> <ul style="list-style-type: none"> i. A copy of the closure report submitted in accordance with 40 CFR 60.757(d). ii. A copy of the initial performance test report demonstrating that the 15 year minimum control period has expired. iii. 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. <p>N. 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)]</p>

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

ATTACHMENT A

**KIEFER LANDFILL WELLS EXEMPT FROM THE
MAXIMUM OXYGEN CONCENTRATION OF CONDITION NO. 10**

- | | <u>Well No.</u> |
|-----|-----------------|
| 1. | H1W |
| 2. | H4E |
| 3. | H5E |
| 4. | H5W |
| 5. | H7E |
| 6. | H8E |
| 7. | H8W |
| 8. | H9E |
| 9. | H9W |
| 10. | H12E |
| 11. | 11 |
| 12. | 17 |
| 13. | 27A |
| 14. | 27B |
| 15. | 43 |
| 16. | 45 |
| 17. | 48B |
| 18. | 65 |
| 19. | 72 |
| 20. | 73 |
| 21. | 112B |
| 22. | LCO1 |

[Basis: SMAQMD Rule 202]

V. EQUIPMENT SPECIFIC REQUIREMENTS – APC LANDFILL GAS FLARE NO. 1

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 (Air Pollution Control) Landfill Gas Flare No. 1

P/O No. 19704 (permit number is for reference purposes only - not federally enforceable)
Manufacturer: John Zink
Model: ZTOF
Type: Enclosed
Heat Input: 150 MMBTU/hour
Capacity: 5,000 scfm of landfill gas

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

- Emissions from Landfill Gas Flare No. 1 shall not exceed the following:
[Basis: SMAQMD Rule 202]

Pollutant	Maximum Allowable Emissions
ROC (A)	A. 2% of inlet NMOC (equivalent to a 98% NMOC destruction efficiency), or B. 20 ppmvd at 3% O2 measured as hexane
NOx (B)	C. 0.06 lb/MMBTU (high heating value)
SO2 (B)	D. 42.4 lb/MMcf of landfill gas fuel
PM10 (B)	E. 7.35 lb/MMcf of landfill gas fuel
CO (B)	F. 0.20 lb/MMBTU (high heating value)

- (A) U.S. EPA New Source Performance Standard (NSPS) requirement (40 CFR 60 Subpart WWW) and U.S. EPA National Emission Standard for Hazardous Pollutants (NESHAP) requirement (40 CFR 63 Subpart AAAA).
(B) SMAQMD BACT determination.

V. EQUIPMENT SPECIFIC REQUIREMENTS – APC LANDFILL GAS FLARE NO. 1

2. Emissions from Landfill Gas Flare No. 1 shall not exceed the following:
[Basis: SMAQMD Rule 202]

Pollutant	Emission Factor (A) lb/MMcf	Maximum Allowable Emissions (B) lb/quarter			
		Quarter 1	Quarter 2	Quarter 3	Quarter 4
ROC	35.2	22,810	23,063	23,294	23,294
NOx	30.0	19,440	19,656	19,872	19,872
SO2	42.4	27,475	27,780	28,108	28,108
PM10	7.35	4,763	4,816	4,869	4,869
CO	100	64,800	65,520	66,240	66,240

(A) Emission factors for NOx and CO are based on SMAQMD BACT determination of 0.06 lb/MMBTU and 0.20 lb/MMBTU respectively and a heat content of 500 BTU/scf of landfill gas.

Emission factor for ROC is based on 7,857 ppmv NMOC in the landfill gas and 98% destruction efficiency.

Emission factor for SO2 is based on SMAQMD BACT determination of 16 grains of sulfur compounds per 100 cubic feet of landfill gas (as H2S) and a conversion efficiency to SO2 of 98%.

Emission factor for PM10 is based on SMAQMD BACT determination.

(B) Emissions based on 5,000 scfm landfill gas fuel combustion rate, 24 hours/day and the number of days in each calendar quarter.

3. A. Combined emissions from the Landfill Gas Air Pollution Control System equipment (5 IC engines and 2 landfill gas flares) shall not exceed the following:

P/O 17331 IC engine No. 1 and
P/O 17332 IC engine No. 2 and
P/O 17333 IC engine No. 3 and
P/O 19705 IC engine No. 4 and
P/O 16151 IC engine No. 5 and
P/O 19704 Landfill Gas Flare No. 1 and
P/O 21097 Landfill Gas Flare No. 2

Pollutant	Maximum Allowable Emissions				
	Quarter 1 lb/quarter	Quarter 2 lb/quarter	Quarter 3 lb/quarter	Quarter 4 lb/quarter	Annually tons/year
ROC	30,847	31,190	31,511	31,511	62.5

V. EQUIPMENT SPECIFIC REQUIREMENTS – APC LANDFILL GAS FLARE NO. 1

Pollutant	Maximum Allowable Emissions				
	Quarter 1 lb/quarter	Quarter 2 lb/quarter	Quarter 3 lb/quarter	Quarter 4 lb/quarter	Annually tons/year
NOx	43,151	43,631	44,110	44,110	87.5
SO2	44,698	45,195	45,715	45,715	90.7
PM10	13,350	13,501	13,648	13,648	27.1
CO	219,798	222,258	224,715	224,715	445.7

- B. Combined emissions from the 5 IC engines only (excluding the 2 landfill gas flares) shall not exceed the following:

P/O 17331 IC engine No. 1 and
P/O 17332 IC engine No. 2 and
P/O 17333 IC engine No. 3 and
P/O 19705 IC engine No. 4 and
P/O 16151 IC engine No. 5

Pollutant	Maximum Annual Allowable Emissions (A) tons/year
NOx	79.8

(A) The NOx emissions from the five IC engines are limited by the amount of ERCs provided from sources other than the SMAQMD Priority Reserve Bank Essential Public Services Account. The 7.72 tons of NOx ERCs leased from the Essential Public Services Account (see Condition No. 20) are not allowed to be used for on-site power generation by SMAQMD Rule 205 Section 102.1.

[Basis: SMAQMD Rule 202]

EQUIPMENT OPERATION AND MONITORING REQUIREMENTS

- The concentration of sulfur compounds (measured as hydrogen sulfide) in the landfill gas combusted in Landfill Gas Flare No. 1 shall not exceed 16 grains per 100 cubic feet.
[Basis: SMAQMD Rule 202]
- A sampling port, or other method approved by the SMAQMD Air Pollution Control Officer, shall be installed at the inlet gas line to landfill Gas Flare No. 1. The sampling port shall be located so that an accurate volume flow measurement can be performed.
[Basis: SMAQMD Rule 202]
- Landfill Gas Flare No. 1 exhaust sample ports shall be permanent, accessible and located and constructed as per applicable U.S. EPA, CARB and U.S. OSHA requirements.

V. EQUIPMENT SPECIFIC REQUIREMENTS – APC LANDFILL GAS FLARE NO. 1

[Basis: SMAQMD Rule 202]

7. A landfill gas flowrate measuring device that provides a measurement of landfill gas flow to Landfill Gas Flare No. 1 shall be installed, calibrated and maintained.
 - A. The landfill gas flowrate measuring device shall record the flow to the landfill gas flare at least every 15 minutes.
 - B. The owner or operator shall submit to the SMAQMD Air Pollution Control Officer for approval a description of the landfill gas flowrate measuring device calibration procedure and schedule of calibration.

[Basis: SMAQMD Rule 202]

8. Landfill Gas Flare No. 1 shall be equipped with a temperature monitoring device.
 - A. The thermocouple used to measure the flare temperature shall 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 shall be equipped with a continuous recorder.
 - C. The temperature monitoring device shall 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 shall 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 202]

9. Landfill Gas Flare No. 1 shall operate at a minimum combustion zone temperature equal to the 3-hour average temperature (measured by the thermocouple specified in Condition No. 8) as determined during the most recent complying source test minus 28 degrees C (minus 50 degrees F)

[Basis: SMAQMD Rule 202]

(The data from the most recent source test is summarized in Attachment B indicating the 3-hour average temperature measured by the thermocouple in Condition No. 8.)

10. The landfill gas condensate injection rate into Landfill Gas Flare No. 1 shall not exceed 3 gallons/minute (manufacturer's data indicating a 3 gallons/minute maximum injection rate has been submitted to the SMAQMD).

[Basis: SMAQMD Rule 202]

V. EQUIPMENT SPECIFIC REQUIREMENTS – APC LANDFILL GAS FLARE NO. 1

RECORDKEEPING AND REPORTING REQUIREMENTS

11. The following records shall be continuously maintained on site for the most recent 5 year period, except as noted, and shall be made available to the SMAQMD Air Pollution Control Officer upon request. Quarterly and annual records shall 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	<p>A. The following information measured during the initial performance test shall be maintained for the life of the flare. Records of subsequent tests or monitoring shall be maintained for a minimum of 5 years. [Basis: 40 CFR 60.758(b)]</p> <p>i. Landfill Gas Flare No. 1 average combustion temperature 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)]</p> <p>ii. The percent reduction of NMOC, determined as specified in 40 CFR 60.752(b)(2)(iii)(B), achieved by Landfill Gas Flare No. 1. [Basis: 40 CFR 60.758(b)(2)(ii)]</p> <p>B. Continuously monitored landfill gas flowrate to Landfill Gas Flare No. 1 as required by Condition No. 7.</p> <p>C. Continuously monitored combustion temperature of Landfill Gas Flare No. 1 as required by Condition No. 8.</p> <p>D. All 3 hour periods of operation during which Landfill Gas Flare No. 1 average combustion temperature was below the limit established in Condition No. 9. [Basis: 40 CFR 60.758(c)(1)(i)]</p> <p>E. Record of calibration reports for the temperature monitoring device.</p> <p>F. Records of source test plans and results to determine compliance with the emission limits in Condition No. 1 shall be maintained for a minimum of 5 years.</p>
Quarterly	<p>G. Comparison of the actual emissions from the Landfill Gas Air Pollution Control System equipment (5 IC engines and 2 landfill gas flares) with the maximum allowable emissions in Condition No. 3.A.</p>

V. EQUIPMENT SPECIFIC REQUIREMENTS – APC LANDFILL GAS FLARE NO. 1

Frequency	Information to be recorded
	(lb/quarter)
Annually	H. Comparison of the actual emissions from the Landfill Gas Air Pollution Control System equipment (5 IC engines and 2 landfill gas flares) with the maximum allowable emissions in Condition No. 3.A. (tons/year) I. Comparison of the actual emissions from the 5 IC engines only (excluding the flare) with the maximum allowable emissions in Condition No. 3.B. (tons/year)

12. A written report shall be submitted to the SMAQMD Air Pollution Control Officer annually by the date indicated and shall contain the following information.

[Basis: SMAQMD Rule 202]

Frequency	Information to be submitted
Annually by: January 31 for the previous calendar year	A. All 3-hour periods of operation during which Landfill Gas Flare No. 1 average combustion temperature was below the limit established in Condition No. 9. [Basis: 40 CFR 60.758(c)(1)(i)] B. Description and duration of all periods when the Landfill Gas Air Pollution Control System (5 IC engines and 2 landfill gas flares) was not operating for a period exceeding 1 hour and length of time the Landfill Gas Air Pollution Control System was not operating. [Basis: 40 CFR 60.757(f)(3)]

13. The permittee shall develop and implement a written Startup, Shutdown and Malfunction (SSM) Plan as specified in 40 CFR 63.6(e)

[Basis: 40 CFR 63.6(e)]

14. Startup, Shutdown and Malfunction (SSM) Immediate Report

A written SSM Immediate Report shall be submitted to the SMAQMD Air Pollution Control Officer as indicated and shall contain the following information.

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

Frequency	Information to be submitted
<u>Only required if a SSM event occurred.</u>	A. If actions taken during a SSM event <u>are not consistent</u> with the procedures specified in the SSM Plan, the permittee shall:

V. EQUIPMENT SPECIFIC REQUIREMENTS – APC LANDFILL GAS FLARE NO. 1

Frequency	Information to be submitted
Within 2 working days →	i. Report to the SMAQMD Air Pollution Control Officer, by telephone call or facsimile (fax), within 2 working days after commencing actions <u>not consistent</u> with the SSM Plan.
Within 7 working days →	ii. Follow with a letter to the SMAQMD Air Pollution Control Officer within 7 working days after the end of the SSM event that: <ul style="list-style-type: none"> (a) Contains the name, title and signature of the responsible official who is certifying the accuracy of the report. (b) Explains the circumstances of the event. (c) Explains the reasons for not following the SSM Plan. (d) Explains whether any excess emissions and/or parameter monitoring exceedances are believed to have occurred.

15. Startup, Shutdown and Malfunction (SSM) Periodic Report

A written SSM Periodic Report shall be submitted to the SMAQMD Air Pollution Control Officer by the date indicated and shall contain the following information.

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

Frequency	Information to be submitted
<u>Only required if a SSM event occurred within a reporting period.</u> Submit by - January 31 July 30 for the reporting periods - January 01 - June 30 July 01 - December 31	A. If actions taken during a SSM event <u>are consistent</u> with the procedures specified in the SSM Plan, the permittee shall state such information in a SSM Report. B. The SSM Report shall contain: <ul style="list-style-type: none"> i. Number, duration and a brief description of each SSM event. ii. A letter containing the name, title and signature of the responsible official who is certifying the

V. EQUIPMENT SPECIFIC REQUIREMENTS – APC LANDFILL GAS FLARE NO. 1

Frequency	Information to be submitted
	accuracy of the report.

16. The permittee shall maintain files of all required SSM information specified below (including all reports and notifications), recorded in a form suitable and readily available for expeditious inspection and review. The files shall 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 shall 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), 40 CFR 63.10(d)(5)(ii)]

Frequency	Information to be recorded
At all times	<p>A. The occurrence and duration of each startup, shutdown or malfunction of operation (i.e., process equipment).</p> <p>B. The occurrence and duration of each malfunction of the required air pollution control and monitoring equipment.</p> <p>C. All required maintenance performed on the air pollution control and monitoring equipment.</p> <p>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 SSM Plan.</p> <p>E. All information necessary to demonstrate conformance with the affected source's SSM 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.</p> <p>i. The information needed to demonstrate conformance with the SSM Plan may be recorded using a "checklist" or some other effective form of recordkeeping, in order to minimize the recordkeeping burden for conforming events)</p>

V. EQUIPMENT SPECIFIC REQUIREMENTS – APC LANDFILL GAS FLARE NO. 1

EMISSION REDUCTION CREDIT (ERC) REQUIREMENTS

17. For SMAQMD Rule 202 New Source Review purposes:

The permittee shall surrender (and has surrendered - See Condition No. 20) NOx ERCs to the SMAQMD Air Pollution Control Officer to offset the following amount of Landfill Gas Air Pollution Control System NOx emissions:

[Basis: SMAQMD Rule 202]

Equipment	Amount of NOx Emissions for which ERCs are to be Provided lb/quarter			
	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Landfill Gas Air Pollution Control System consisting of: 1. P/O 17331 IC engine No. 1 2. P/O 17332 IC engine No. 2 3. P/O 17333 IC engine No. 3 4. P/O 19705 IC engine No. 4 5. P/O 16151 IC engine No. 5 6. P/O 19704 Landfill Gas Flare No. 1 7. P/O 21097 Landfill Gas Flare No. 2	20,484	20,711	20,938	20,938

18. For U.S. EPA Pollution Control Project purposes:

The permittee shall surrender (and has surrendered - See Condition No. 21) NOx ERCs to the SMAQMD Air Pollution Control Officer to offset the following amount of Landfill Gas Air Pollution Control System NOx emissions:

[Basis: SMAQMD Rule 202]

Equipment	Amount of NOx Emissions for which ERCs are to be Provided (A) (B) tons/year

V. EQUIPMENT SPECIFIC REQUIREMENTS – APC LANDFILL GAS FLARE NO. 1

Landfill Gas Air Pollution Control System consisting of: 1. P/O 17331 IC engine No. 1 2. P/O 17332 IC engine No. 2 3. P/O 17333 IC engine No. 3 4. P/O 19705 IC engine No. 4 5. P/O 16151 IC engine No. 5 6. P/O 19704 Landfill Gas Flare No. 1 7. P/O 21097 Landfill Gas Flare No. 2	87.5
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- (A) The requirement for these ERCs is a result of U.S. EPA's Pollution Control Project offsetting policy:
- i. U.S. EPA excludes the project from Federal New Source Review rules if it qualifies as a Pollution Control Project.
 - ii. The project qualifies as a Pollution Control Project if it is environmentally beneficial.
 - iii. The project is environmentally beneficial if all NOx emissions from the project are offset.
- (B) The amount of ERCs to be provided is not in addition to the amount specified in Condition No. 16.

19. The permittee shall surrender (and has surrendered - See Condition No. 22) PM10 ERCs to the SMAQMD Air Pollution Control Officer to offset the following amount of Landfill Gas Air Pollution Control System PM10 emissions:
[Basis: SMAQMD Rule 202]

Equipment	Amount of PM10 Emissions for which ERCs are to be Provided lb/quarter			
	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Landfill Gas Air Pollution Control System consisting of: 1. P/O 17331 IC engine No. 1 2. P/O 17332 IC engine No. 2 3. P/O 17333 IC engine No. 3 4. P/O 19705 IC engine No. 4 5. P/O 16151 IC engine No. 5 6. P/O 19704 Landfill Gas Flare No. 1 7. P/O 21097 Landfill Gas Flare No. 2	5,799	5,909	6,016	6,016

20. The following NOx/ROC ERCs have been surrendered to the SMAQMD Air Pollution Control Officer to comply with the SMAQMD Rule 202 New Source Review requirement as stated in Condition No. 17:
[Basis: SMAQMD Rule 202]

V. EQUIPMENT SPECIFIC REQUIREMENTS – APC LANDFILL GAS FLARE NO. 1

Emission Reduction Credit Certificate No.	Face Value of NOx/ROC ERC Certificates Surrendered lb/quarter				Inter-Pollutant Trading Ratio	Offset Ratio	Value Applied to the Project NOx Emission Liability lb/quarter			
	Qtr 1	Qtr 2	Qtr 3	Qtr 4			Qtr 1	Qtr 2	Qtr 3	Qtr 4
98-00470 Rancho Seco ICE NOx	1,448	1,448	1,448	1,448	N/A	1.3:1	1,114	1,114	1,114	1,114
98-00472 Rancho Seco ICE NOx	1,160	1,160	1,160	1,160	N/A	1.3:1	892	892	892	892
98-00474 Rancho Seco ICE NOx	2,250	2,250	2,250	2,250	N/A	1.3:1	1,731	1,731	1,731	1,731
98-00476 Rancho Seco ICE NOx	2,727	2,727	2,727	2,727	N/A	1.3:1	2,098	2,098	2,098	2,098
98-00478 Rancho Seco Boiler NOx	12,089	4,193	719	4,529	N/A	1.3:1	9,299	3,225	553	3,484
EC-0002 Yolo-Solano APCD Spreckles Sugar NOx	0	4,884	2,719	3,539	N/A	1.5:1	0	3,256	1,813	2,359
EC-0004 Yolo-Solano APCD Spreckles Sugar NOx	0	0	6,175	958	N/A	1.5:1	0	0	4,117	639

V. EQUIPMENT SPECIFIC REQUIREMENTS – APC LANDFILL GAS FLARE NO. 1

Emission Reduction Credit Certificate No.	Face Value of NOx/ROC ERC Certificates Surrendered lb/quarter				Inter-Pollutant Trading Ratio	Offset Ratio	Value Applied to the Project NOx Emission Liability lb/quarter			
	Qtr 1	Qtr 2	Qtr 3	Qtr 4			Qtr 1	Qtr 2	Qtr 3	Qtr 4
98-00004 Placer County APCD Formica Corporation ROC	16,050	25,185	25,863	25,865	2:1	1.5:1	5,350	8,395	8,621	8,622
Total							20,484	20,711	20,938	20,938

21. The following NOx/ROC ERCs have been surrendered to the SMAQMD Air Pollution Control Officer to comply with the U.S. EPA requirement stated in Condition No. 18:
[Basis: SMAQMD Rule 202]

Emission Reduction Credit Certificate No.	Face Value of NOx/ROC ERC Certificates Surrendered lb/quarter				Inter-Pollutant Trading Ratio	Offset Ratio	Value Applied to the Project NOx Emission Liability ton/year
	Qtr 1	Qtr 2	Qtr 3	Qtr 4			
99-00649 Poppy Ridge NOx	4,089	6,029	6,132	4,259	N/A	1:1	10.25
01-00752 Poppy Ridge NOx	522	391	36	457	N/A	1:1	0.70
01-00752 Poppy Ridge NOx	715	715	715	715	N/A	1:1	1.43
98-00470 Rancho Seco ICE NOx	1,448	1,448	1,448	1,448	N/A	1:1	2.90
98-00472 Rancho Seco ICE NOx	1,160	1,160	1,160	1,160	N/A	1:1	2.32

V. EQUIPMENT SPECIFIC REQUIREMENTS – APC LANDFILL GAS FLARE NO. 1

Emission Reduction Credit Certificate No.	Face Value of NOx/ROC ERC Certificates Surrendered lb/quarter				Inter-Pollutant Trading Ratio	Offset Ratio	Value Applied to the Project NOx Emission Liability ton/year
	Qtr 1	Qtr 2	Qtr 3	Qtr 4			
98-00474 Rancho Seco ICE NOx	2,250	2,250	2,250	2,250	N/A	1:1	4.50
98-00476 Rancho Seco ICE NOx	2,727	2,727	2,727	2,727	N/A	1:1	5.45
98-00478 Rancho Seco Boiler NOx	12,089	4,193	719	4,529	N/A	1:1	10.77
EC-0002 Yolo-Solano APCD Spreckles Sugar NOx	0	4,884	2,719	3,539	N/A	1:1	5.57
EC-0004 Yolo-Solano APCD Spreckles Sugar NOx	0	0	6,175	958	N/A	1:1	3.57
98-00004 Placer APCD Formica Corporation ROC	16,848	35,070	43,089	34,296	2:1	1:1	32.33

V. EQUIPMENT SPECIFIC REQUIREMENTS – APC LANDFILL GAS FLARE NO. 1

Emission Reduction Credit Certificate No.	Face Value of NOx/ROC ERC Certificates Surrendered lb/quarter				Inter-Pollutant Trading Ratio	Offset Ratio	Value Applied to the Project NOx Emission Liability ton/year
	Qtr 1	Qtr 2	Qtr 3	Qtr 4			
P07-1005 Essential Public Services Account SMAQMD Priority Reserve Bank Lease expires on: 01/01/2012 (A) NOx	4,588	2,890	3,252	4,704	N/A	1:1	7.72
Total							87.5

(A) ERCs in the amount specified shall be provided at all times that the permitted equipment is allowed to operate:

- i. The permit shall expire on the date that the ERCs expire unless replacement ERCs have been provided as specified in (ii) below.
- ii. When ERCs are provided that have an expiration date, **and prior to their expiration only**, the permittee can provide replacement ERCs. The permittee shall submit a valid permit application to modify this Permit to Operate and shall pay the required permit fees. The application shall be filed prior to the ERC expiration date such that sufficient time is available to SMAQMD staff to process the application.
 - a. The application shall be evaluated in accordance with the requirements of the current SMAQMD Rule 202 - New Source Review and SMAQMD Rule 204 - Emission Reduction Credits.
 - b. ERCs shall be required in an amount which is the larger of:
 - (1) The originally specified amount, or
 - (2) The amount specified by the current SMAQMD Rule 202 - New Source Review at the time of replacement.
- iii. Failure to provide replacement ERCs prior to the expiration date of the current ERCs associated with this Permit to Operate shall require that the permittee reapply for an Authority to Construct and Permit to Operate for the subject equipment if continued operation of the equipment is desired. The equipment shall be subject to Best Available Control Technology requirements and offsetting requirements of SMAQMD Rule 202 - New Source Review at the time of repermitting.

22. The following PM10 ERCs have been surrendered to the SMAQMD Air Pollution Control Officer to comply with the SMAQMD Rule 202 New Source Review requirement as stated in Condition No. 19:

[Basis: SMAQMD Rule 202]

V. EQUIPMENT SPECIFIC REQUIREMENTS – APC LANDFILL GAS FLARE NO. 1

Emission Reduction Credit Certificate No.	Face Value of PM10 ERC Certificates Surrendered lb/quarter				Offset Ratio	Value Applied to the Project PM10 Emission Liability lb/quarter			
	Qtr 1	Qtr 2	Qtr 3	Qtr 4		Qtr 1	Qtr 2	Qtr 3	Qtr 4
2005-03 Placer County APCD Lincoln Brand Feeds	4329	4446	4558.5	4558.5	1.5:1	2886	2964	3039	3039
2005-06 Placer County APCD Lincoln Brand Feeds	2425	2308	2195.5	2195.5	1.5:1	1616.7	1538.7	1463.7	1463.7
C053003 SMAQMD Community Bank Lease expires on: 07/01/2035 (A)	1296.3	1406.3	1513.3	1513.3	1:1	1296.3	1406.3	1513.3	1513.3
Total						5799	5909	6016	6016

(A) ERCs in the amount specified shall be provided at all times that the permitted equipment is allowed to operate:

- i. The permit shall expire on the date that the ERCs expire unless replacement ERCs have been provided as specified in (ii) below.
- ii. When ERCs are provided that have an expiration date, **and prior to their expiration only**, the permittee can provide replacement ERCs. The permittee shall submit a valid permit application to modify this Permit to Operate and shall pay the required permit fees. The application shall be filed prior to the ERC expiration date such that sufficient time is available to SMAQMD staff to process the application.
 - a. The application shall be evaluated in accordance with the requirements of the current SMAQMD Rule 202 - New Source Review and SMAQMD Rule 204 - Emission Reduction Credits.
 - b. ERCs shall be required in an amount which is the larger of:
 - (1) The originally specified amount, or
 - (2) The amount specified by the current SMAQMD Rule 202 - New Source Review at the time of replacement.
- iii. Failure to provide replacement ERCs prior to the expiration date of the current ERCs associated with this Permit to Operate shall require that the permittee reapply for an Authority to Construct and Permit to Operate for the subject equipment if continued operation of the equipment is desired. The equipment shall be subject to Best Available

V. EQUIPMENT SPECIFIC REQUIREMENTS – APC LANDFILL GAS FLARE NO. 1

Control Technology requirements and offsetting requirements of SMAQMD Rule 202 - New Source Review at the time of repermitting.

EMISSION TESTING REQUIREMENTS

22. An emission test shall be conducted each calendar year to demonstrate compliance with Condition Nos. 1, 2, 3, 4 and 9:
- 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 if the date has changed from that approved in the Source Test Plan.
 - C. Submit the Source Test Results Report to the SMAQMD Air Pollution Control Officer within 60 days from the completion of the source test.
 - D. The source test shall be conducted at the exhaust of the landfill gas flare (except for hydrogen sulfide test which shall use the inlet) and shall include a test for:
 - i. Either:
 - a. NMOC destruction efficiency, or
 - b. Total NMOC (ppmvd at 3% O₂ measured as hexane)
 - ii. Nitrogen oxides, NO_x
 - iii. Carbon monoxide, CO
 - iv. Particulate Matter, PM₁₀
 - v. Hydrogen sulfide, H₂S (inlet)
 - vi. Combustion temperature (as measured by the thermocouple required by Condition No. 8)
 - vii. Landfill gas flow rate
 - E. The SMAQMD Air Pollution Control Officer may waive the annual source test requirement for PM₁₀ if, in the SMAQMD Air Pollution Control Officer's sole judgment, previous source test results indicate that an adequate compliance margin has been maintained.
 - F. Compliance with the NO_x emission limit shall be determined using one of the following source test methods:

V. EQUIPMENT SPECIFIC REQUIREMENTS – APC LANDFILL GAS FLARE NO. 1

- i. CARB Method 100;
 - ii. U.S. EPA Method 7E; or
 - iii. Any other method approved by the U.S. Environmental Protection Agency and the SMAQMD Air Pollution Control Officer.
- [Basis: SMAQMD Rule 202]**

RACT DETERMINATION REQUIREMENTS

23. This permit incorporates a Reasonably Available Control Technology (RACT) determination as required by the federal Clean Air Act (as amended 1990) Sections 182(b)(2) and 182(f).
[Basis: SMAQMD Rule 202]
24. For federal enforcement purposes the RACT provisions of this permit that are approved by the U.S. Environmental Protection Agency shall remain in effect as part of the State of California Implementation Plan (SIP) until replaced pursuant to 40 CFR 51 and approved by the U.S. EPA.
[Basis: SMAQMD Rule 202]

V. EQUIPMENT SPECIFIC REQUIREMENTS – APC LANDFILL GAS FLARE NO. 1

ATTACHMENT B

Actual Flare Combustion Temperature Observed
During the Most Recent Landfill Gas Flare No. 1 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
10-24-2006	1540	1490
Historical Data ↓		
11-07-2005	1570	1520
11-01-2004	1560	1510
11-17-2003	1550	1500
11-06-2002	1570	1520

[Basis: SMAQMD Rule 202]

V. EQUIPMENT SPECIFIC REQUIREMENTS – APC LANDFILL GAS FLARE NO. 2

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 (Air Pollution Control) Landfill Gas Flare No. 2

P/O No. 21097 (permit number is for reference purposes only - not federally enforceable)
Manufacturer: Perennial Energy
Model: 120 MMBTU/hour
Type: Enclosed
Heat Input: 120 MMBTU/hour
Capacity: 4,000 scfm of landfill gas

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

- Emissions from Landfill Gas Flare No. 2 shall not exceed the following:
[Basis: SMAQMD Rule 202]

Pollutant	Maximum Allowable Emissions
ROC (A)	A. 2% of inlet NMOC (equivalent to a 98% NMOC destruction efficiency), or B. 20 ppmvd at 3% O2 measured as hexane
NOx (B)	C. 25 lb/MMft3 of landfill gas fuel [equivalent to 0.05 lb/MMBTU at 500 BTU/ft3 of LFG]
SO2 (C) (D)	D. 20 lb/MMft3 of landfill gas fuel [equivalent to 0.04 lb/MMBTU at 500 BTU/ft3 of LFG] [equivalent to 7.4 grains of S (measured as H2S)/100 ft3 of LFG combusted]
PM10 (C)	E. 7.35 lb/MMft3 of landfill gas fuel [equivalent to 0.0147lb/MMBTU at 500 BTU/ft3 of LFG]
CO (B)	F. 75 lb/MMft3 of landfill gas fuel [equivalent to 0.15 lb/MMBTU at 500 BTU/ft3 of LFG]

- U.S. EPA New Source Performance Standard (NSPS) requirement (40 CFR 60 Subpart WWW) and U.S. EPA National Emission Standard for Hazardous Pollutants (NESHAP) requirement (40 CFR 63 Subpart AAAA).
- Permittee requested emission limit that is more restrictive than the SMAQMD BACT emission limit.

V. EQUIPMENT SPECIFIC REQUIREMENTS – APC LANDFILL GAS FLARE NO. 2

- (C) SMAQMD BACT determination.
- (D) The permittee shall submit an Authority to Construct application to the SMAQMD if source testing indicates that SO₂ mass emissions exceed the permit limit. The Authority to Construct application shall be submitted within 45 days of the SMAQMD receiving source test results indicating that SO₂ mass emissions exceed the permit limit. Exceedance of the permit limit shall be a permit violation only if an Authority to Construct application is not received within the 45 day period.

2. Emissions from Landfill Gas Flare No. 2 shall not exceed the following:
[Basis: SMAQMD Rule 202]

Pollutant	Emission Factor (A) lb/MMft ³	Maximum Allowable Emissions (B) lb/quarter			
		Quarter 1	Quarter 2	Quarter 3	Quarter 4
ROC	13.7 (A)	7,102	7,181	7,260	7,260
NO _x	25 (B)	12,960	13,104	13,248	13,248
SO ₂	20 (C)	10,368	10,483	10,598	10,598
PM ₁₀	7.35 (D)	3,810	3,853	3,895	3,895
CO	75 (E)	38,880	39,312	39,744	39,744

- (A) Emission factor for ROC is based on -
 - i. a landfill gas NMOC concentration of 7,857 ppmv (as hexane), [established from highest concentration of 17 co-disposal sites, average is 1,849.8 ppm, Reference: Table 3-5, *Air Emissions from Municipal Solid Waste Landfills - Background Information for Proposed Standards and Guidelines*, Office of Air Quality Planning and Standards, Research Triangle Park, U.S. Environmental Protection Agency, EPA-450/3-90-011a, March 1991]
 - ii. 39% of total NMOC is ROC,
 - iii. MW of NMOC (as hexane) is 86.18 and
 - iv. 98% destruction efficiency.
- (B) Emission factor for NO_x is based on permittee's request of 0.05 lb/MMBTU (equivalent to 25 lb/MMft³ at 500 BTU/ft³ of LFG).
- (C) Emission factor for SO₂ is based on a SMAQMD BACT determination of 0.04 lb/MMBTU (equivalent to 20 lb/MMft³ at 500 BTU/ft³ of LFG).
- (D) Emission factor for PM₁₀ is based on a SMAQMD BACT determination of 0.0147 lb/MMBTU (equivalent to 7.35 lb/MMft³ at 500 BTU/ft³ of LFG).
- (E) Emission factor for CO based on permittee's request of 0.15 lb/MMBTU (equivalent to 75 lb/MMft³ at 500 BTU/ft³ of LFG).
- (F) Mass emissions are based on 4,000 ft³/min. LFG combustion rate, 500 BTU/ft³ of LFG, 24 hours/day and the number of days in each calendar quarter.

V. EQUIPMENT SPECIFIC REQUIREMENTS – APC LANDFILL GAS FLARE NO. 2

3. A. Combined emissions from the Landfill Gas Air Pollution Control System equipment (5 IC engines and 2 landfill gas flares) shall not exceed the following:

P/O 17331 IC engine No. 1 and
P/O 17332 IC engine No. 2 and
P/O 17333 IC engine No. 3 and
P/O 19705 IC engine No. 4 and
P/O 16151 IC engine No. 5 and
P/O 19704 Landfill Gas Flare No. 1
P/O 21097 Landfill Gas Flare No. 2

Pollutant	Maximum Allowable Emissions				
	Quarter 1 lb/quarter	Quarter 2 lb/quarter	Quarter 3 lb/quarter	Quarter 4 lb/quarter	Annually tons/year
ROC	30,847	31,190	31,511	31,511	62.5
NOx	43,151	43,631	44,110	44,110	87.5
SO2	44,698	45,195	45,715	45,715	90.7
PM10	13,350	13,501	13,648	13,648	27.1
CO	219,798	222,258	224,715	224,715	445.7

- B. Combined emissions from the 5 IC engines only (excluding the 2 landfill gas flares) shall not exceed the following:

P/O 17331 IC engine No. 1 and
P/O 17332 IC engine No. 2 and
P/O 17333 IC engine No. 3 and
P/O 19705 IC engine No. 4 and
P/O 16151 IC engine No. 5

Pollutant	Maximum Annual Allowable Emissions (A) tons/year
NOx	79.8

(A) The NOx emissions from the five IC engines are limited by the amount of ERCs provided from sources other than the SMAQMD Priority Reserve Bank Essential Public Services Account. The 7.72 tons of NOx ERCs leased from the Essential Public Services Account (see Condition No. 20) are not allowed to be used for on-site power generation by SMAQMD Rule 205 Section 102.1.

[Basis: SMAQMD Rule 202]

V. EQUIPMENT SPECIFIC REQUIREMENTS – APC LANDFILL GAS FLARE NO. 2

EQUIPMENT OPERATION AND MONITORING REQUIREMENTS

4. The concentration of sulfur compounds (measured as hydrogen sulfide) in the landfill gas combusted in Landfill Gas Flare No. 2 shall not exceed 16 grains per 100 cubic feet.
[Basis: SMAQMD Rule 202]
5. A sampling port, or other method approved by the SMAQMD Air Pollution Control Officer, shall be installed at the inlet gas line to Landfill Gas Flare No. 2. The sampling port shall be located so that an accurate volume flow measurement can be performed.
[Basis: SMAQMD Rule 202]
6. Landfill Gas Flare No. 2 exhaust sample ports shall be permanent, accessible and located and constructed as per applicable U.S. EPA, CARB and U.S. OSHA requirements.
[Basis: SMAQMD Rule 202]
7. A landfill gas flowrate measuring device that provides a measurement of landfill gas flow to Landfill Gas Flare No. 2 shall be installed, calibrated and maintained.
 - A. The landfill gas flowrate measuring device shall record the flow to Landfill Gas Flare No. 2 at least every 15 minutes.
 - B. The owner or operator shall submit to the SMAQMD Air Pollution Control Officer for approval a description of the landfill gas flowrate measuring device calibration procedure and schedule of calibration.
[Basis: SMAQMD Rule 202]
8. Landfill Gas Flare No. 2 shall be equipped with a temperature monitoring device.
 - A. The thermocouple used to measure the flare temperature shall 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 shall be equipped with a continuous recorder.
 - C. The temperature monitoring device shall 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 shall 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 202]

V. EQUIPMENT SPECIFIC REQUIREMENTS – APC LANDFILL GAS FLARE NO. 2

9. Landfill Gas Flare No. 2 shall operate at a minimum combustion zone temperature equal to the 3-hour average temperature (measured by the thermocouple specified in Condition No. 8) as determined during the most recent complying source test minus 28 degrees C (minus 50 degrees F)

[Basis: SMAQMD Rule 202]

(The data from the most recent source test is summarized in Attachment C indicating the 3-hour average temperature measured by the thermocouple in Condition No. 8.)

10. The landfill gas condensate injection rate into Landfill Gas Flare No. 2 shall not exceed 4 gallons/minute.

[Basis: SMAQMD Rule 202]

RECORDKEEPING AND REPORTING REQUIREMENTS

11. The following records shall be continuously maintained on site for the most recent 5 year period, except as noted, and shall be made available to the SMAQMD Air Pollution Control Officer upon request. Quarterly and annual records shall 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	<p>A. The following information measured during the initial performance test shall be maintained for the life of Landfill Gas Flare No. 2. Records of subsequent tests or monitoring shall be maintained for a minimum of 5 years. [Basis: 40 CFR 60.758(b)]</p> <p>i. Landfill Gas Flare No. 2 average combustion temperature 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)]</p> <p>ii. The percent reduction of NMOC, determined as specified in 40 CFR 60.752(b)(2)(iii)(B), achieved by Landfill Gas Flare No. 2. [Basis: 40 CFR 60.758(b)(2)(ii)]</p> <p>B. Continuously monitored landfill gas flowrate to Landfill Gas Flare No. 2 as required by Condition No. 7.</p> <p>C. Continuously monitored combustion temperature of Landfill Gas Flare No. 2 as required by Condition No. 8.</p>

V. EQUIPMENT SPECIFIC REQUIREMENTS – APC LANDFILL GAS FLARE NO. 2

Frequency	Information to be recorded
	<p>D. All 3 hour periods of operation during which Landfill Gas Flare No. 2 average combustion temperature was below the limit established in Condition No. 9. [Basis: 40 CFR 60.758(c)(1)(i)]</p> <p>E. Records of calibration reports for the landfill gas flowrate monitoring device.</p> <p>F. Record of calibration reports for the temperature monitoring device.</p> <p>G. Records of source test plans and results to determine compliance with the emission limits in Condition No. 1 shall be maintained for a minimum of 5 years.</p>
Quarterly	H. Comparison of the actual emissions from the Landfill Gas Air Pollution Control System equipment (5 IC engines and 2 landfill gas flares) with the maximum allowable emissions in Condition No. 3.A. (lb/quarter)
Annually	I. Comparison of the actual emissions from the Landfill Gas Air Pollution Control System equipment (5 IC engines and 2 landfill gas flares) with the maximum allowable emissions in Condition No. 3.A. (tons/year)

12. A written report shall be submitted to the SMAQMD Air Pollution Control Officer annually by the date indicated and shall contain the following information.

[Basis: SMAQMD Rule 202]

Frequency	Information to be submitted
Annually by: January 31 for the previous calendar year	<p>A. All 3-hour periods of operation during which Landfill Gas Flare No. 2 average combustion temperature was below the limit established in Condition No. 9. [Basis: 40 CFR 60.758(c)(1)(i)]</p> <p>B. Description and duration of all periods when the Landfill Gas Air Pollution Control System (5 IC engines and 2 landfill gas flares) was not operating for a period exceeding 1 hour and length of time the Landfill Gas Air Pollution Control System was not operating. [Basis: 40 CFR 60.757(f)(3)]</p>

V. EQUIPMENT SPECIFIC REQUIREMENTS – APC LANDFILL GAS FLARE NO. 2

13. The permittee shall develop and implement a written Startup, Shutdown and Malfunction (SSM) Plan as specified in 40 CFR 63.6(e)
[Basis: 40 CFR 63.6(e)]

14. Startup, Shutdown and Malfunction (SSM) Immediate Report

A written SSM Immediate Report shall be submitted to the SMAQMD Air Pollution Control Officer as indicated and shall contain the following information.

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

Frequency	Information to be submitted
<p><u>Only required if a SSM event occurred.</u></p> <p>Within 2 working days →</p> <p>Within 7 working days →</p>	<p>A. If actions taken during a SSM event <u>are not consistent</u> with the procedures specified in the SSM Plan, the permittee shall:</p> <p>i. Report to the SMAQMD Air Pollution Control Officer, by telephone call or facsimile (fax), within 2 working days after commencing actions <u>not consistent</u> with the SSM Plan.</p> <p>ii. Follow with a letter to the SMAQMD Air Pollution Control Officer within 7 working days after the end of the SSM event that:</p> <p>(a) Contains the name, title and signature of the responsible official who is certifying the accuracy of the report.</p> <p>(b) Explains the circumstances of the event.</p> <p>(c) Explains the reasons for not following the SSM Plan.</p> <p>(d) Explains whether any excess emissions and/or parameter monitoring exceedances are believed to have occurred.</p>

V. EQUIPMENT SPECIFIC REQUIREMENTS – APC LANDFILL GAS FLARE NO. 2

15. Startup, Shutdown and Malfunction (SSM) Periodic Report

A written SSM Periodic Report shall be submitted to the SMAQMD Air Pollution Control Officer by the date indicated and shall contain the following information.

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

Frequency	Information to be submitted
<u>Only required if a SSM event occurred within a reporting period.</u> Submit by - January 31 July 30 for the reporting periods - January 01 - June 30 July 01 - December 31	A. If actions taken during a SSM event <u>are consistent</u> with the procedures specified in the SSM Plan, the permittee shall state such information in a SSM Report. B. The SSM Report shall contain: <ul style="list-style-type: none"> i. Number, duration and a brief description of each SSM event. ii. A letter containing the name, title and signature of the responsible official who is certifying the accuracy of the report.

16. The permittee shall maintain files of all required SSM information specified below (including all reports and notifications), recorded in a form suitable and readily available for expeditious inspection and review. The files shall 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 shall 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), 40 CFR 63.10(b), 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.

V. EQUIPMENT SPECIFIC REQUIREMENTS – APC LANDFILL GAS FLARE NO. 2

Frequency	Information to be recorded
	<p>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 SSM Plan.</p> <p>E. All information necessary, including actions taken, to demonstrate conformance with the affected source's startup, shutdown, and malfunction plan when all actions taken during periods of startup or shutdown (and the startup or shutdown causes the source to exceed any applicable emission limitation in the relevant emission standards), 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.</p> <p style="padding-left: 40px;">i. The information needed to demonstrate conformance with the SSM Plan may be recorded using a "checklist" or some other effective form of recordkeeping, in order to minimize the recordkeeping burden for conforming events.</p> <p>F. Each period during which a continuous monitoring system (CMS) is malfunctioning or inoperative (including out-of-control periods).</p> <p>G. All required measurements needed to demonstrate compliance with a relevant standard (including, but not limited to, 15-minute averages of CMS data, raw performance testing measurements, and raw performance evaluation measurements, that support data that the source is required to report).</p> <p>H. All results of performance tests, CMS performance evaluations, and opacity and visible emission observations.</p> <p>I. All measurements as may be necessary to determine the conditions of performance tests and performance evaluations.</p> <p>J. All CMS calibration checks.</p> <p>K. All adjustments and maintenance performed on CMS.</p> <p>L. All documentation supporting initial notifications and notifications of compliance status under 40 CFR 63.9.</p>

V. EQUIPMENT SPECIFIC REQUIREMENTS – APC LANDFILL GAS FLARE NO. 2

Frequency	Information to be recorded
	<p>M. All required CMS measurements (including monitoring data recorded during unavoidable CMS breakdowns and out-of-control periods).</p> <p>N. The date and time identifying each period during which the CMS was inoperative except for zero (low-level) and high-level checks.</p> <p>O. The date and time identifying each period during which the CMS was out of control, as defined in 40 CFR 63.8(c)(7).</p> <p>P. The specific identification (i.e., the date and time of commencement and completion) of each period of excess emissions and parameter monitoring exceedances, as defined in the relevant standard(s), that occurs during startups, shutdowns, and malfunctions of the affected source.</p> <p>Q. The specific identification (i.e., the date and time of commencement and completion) of each time period of excess emissions and parameter monitoring exceedances, as defined in the relevant standard(s), that occurs during periods other than startups, shutdowns, and malfunctions of the affected source.</p> <p>R. The nature and cause of any malfunction (if known).</p> <p>S. The corrective action taken or preventive measures adopted.</p> <p>T. The nature of the repairs or adjustments to the CMS that was inoperative or out of control.</p> <p>U. The total process operating time during the reporting period.</p> <p>V. All procedures that are part of a quality control program developed and implemented for CMS under 40 CFR 63.8(d).</p>

V. EQUIPMENT SPECIFIC REQUIREMENTS – APC LANDFILL GAS FLARE NO. 2

EMISSION REDUCTION CREDIT (ERC) REQUIREMENTS

17. For SMAQMD Rule 202 New Source Review purposes:

The permittee shall surrender (and has surrendered - See Condition No. 20) NOx ERCs to the SMAQMD Air Pollution Control Officer to offset the following amount of Landfill Gas Air Pollution Control System NOx emissions:

[Basis: SMAQMD Rule 202]

Equipment	Amount of NOx Emissions for which ERCs are to be Provided lb/quarter			
	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Landfill Gas Air Pollution Control System consisting of: 1. P/O 17331 IC engine No. 1 2. P/O 17332 IC engine No. 2 3. P/O 17333 IC engine No. 3 4. P/O 19705 IC engine No. 4 5. P/O 16151 IC engine No. 5 6. P/O 19704 Landfill Gas Flare No. 1 7. P/O 21097 Landfill Gas Flare No. 2	20,484	20,711	20,938	20,938

18. For U.S. EPA Pollution Control Project purposes:

The permittee shall surrender (and has surrendered - See Condition No. 21) NOx ERCs to the SMAQMD Air Pollution Control Officer to offset the following amount of Landfill Gas Air Pollution Control System NOx emissions:

[Basis: SMAQMD Rule 202]

Equipment	Amount of NOx Emissions for which ERCs are to be Provided (A) (B) tons/year

V. EQUIPMENT SPECIFIC REQUIREMENTS – APC LANDFILL GAS FLARE NO. 2

Landfill Gas Air Pollution Control System consisting of: 1. P/O 17331 IC engine No. 1 2. P/O 17332 IC engine No. 2 3. P/O 17333 IC engine No. 3 4. P/O 19705 IC engine No. 4 5. P/O 16151 IC engine No. 5 6. P/O 19704 Landfill Gas Flare No. 1 7. P/O 21097 Landfill Gas Flare No. 2	87.5
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- (A) The requirement for these ERCs is a result of U.S. EPA's Pollution Control Project offsetting policy:
- i. U.S. EPA excludes the project from Federal New Source Review rules if it qualifies as a Pollution Control Project.
 - ii. The project qualifies as a Pollution Control Project if it is environmentally beneficial.
 - iii. The project is environmentally beneficial if all NOx emissions from the project are offset.
- (B) The amount of ERCs to be provided is not in addition to the amount specified in Condition No. 16.

19. The permittee shall surrender (and has surrendered - See Condition No. 22) PM10 ERCs to the SMAQMD Air Pollution Control Officer to offset the following amount of Landfill Gas Air Pollution Control System PM10 emissions:
[Basis: SMAQMD Rule 202]

Equipment	Amount of PM10 Emissions for which ERCs are to be Provided lb/quarter			
	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Landfill Gas Air Pollution Control System consisting of: 1. P/O 17331 IC engine No. 1 2. P/O 17332 IC engine No. 2 3. P/O 17333 IC engine No. 3 4. P/O 19705 IC engine No. 4 5. P/O 16151 IC engine No. 5 6. P/O 19704 Landfill Gas Flare No. 1 7. P/O 21097 Landfill Gas Flare No. 2	5,799	5,909	6,016	6,016

20. The following NOx/ROC ERCs have been surrendered to the SMAQMD Air Pollution Control Officer to comply with the SMAQMD Rule 202 New Source Review requirement as stated in Condition No. 17:
[Basis: SMAQMD Rule 202]

V. EQUIPMENT SPECIFIC REQUIREMENTS – APC LANDFILL GAS FLARE NO. 2

See Table in Condition No. 20 associated with Landfill Gas Flare No. 1.

21. The following NO_x/ROC ERCs have been surrendered to the SMAQMD Air Pollution Control Officer to comply with the U.S. EPA requirement stated in Condition No. 18:
[Basis: SMAQMD Rule 202]

See Table in Condition No. 21 associated with Landfill Gas Flare No. 1.

22. The following PM₁₀ ERCs have been surrendered to the SMAQMD Air Pollution Control Officer to comply with the SMAQMD Rule 202 New Source Review requirement as stated in Condition No. 19:
[Basis: SMAQMD Rule 202]

See Table in Condition No. 22 associated with Landfill Gas Flare No. 1.

EMISSION TESTING REQUIREMENTS

23. An emission test shall be conducted each calendar year to demonstrate compliance with Condition Nos. 1, 2, 3, 4 and 9:
- 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 if the date has changed from that approved in the Source Test Plan.
 - C. Submit the Source Test Results Report to the SMAQMD Air Pollution Control Officer within 60 days from the completion of the source test.
 - D. The source test shall be conducted at the exhaust of the landfill gas flare (except for hydrogen sulfide test which shall use the inlet) and shall include a test for:
 - i. Either:
 - a. NMOC destruction efficiency, or
 - b. Total NMOC (ppmvd at 3% O₂ measured as hexane)
 - ii. Nitrogen oxides, NO_x
 - iii. Carbon monoxide, CO

V. EQUIPMENT SPECIFIC REQUIREMENTS – APC LANDFILL GAS FLARE NO. 2

- iv. Particulate Matter, PM10
 - v. Hydrogen sulfide, H₂S (inlet)
 - vi. Combustion temperature (as measured by the thermocouple required by Condition No. 8)
 - vii. Landfill gas flow rate
- E. The SMAQMD Air Pollution Control Officer may waive the annual source test requirement for PM10 if, in the SMAQMD Air Pollution Control Officer's sole judgment, previous source test results indicate that an adequate compliance margin has been maintained.
- F. Compliance with the NO_x emission limit shall be determined using one of the following source test methods:
- i. CARB Method 100;
 - ii. U.S. EPA Method 7E; or
 - iii. Any other method approved by the U.S. Environmental Protection Agency and the SMAQMD Air Pollution Control Officer.

[Basis: SMAQMD Rule 202]

RACT DETERMINATION REQUIREMENTS

24. This permit incorporates a Reasonably Available Control Technology (RACT) determination as required by the federal Clean Air Act (as amended 1990) Sections 182(b)(2) and 182(f).
[Basis: SMAQMD Rule 202]
25. For federal enforcement purposes the RACT provisions of this permit that are approved by the U.S. Environmental Protection Agency shall remain in effect as part of the State of California Implementation Plan (SIP) until replaced pursuant to 40 CFR 51 and approved by the U.S. EPA.
[Basis: SMAQMD Rule 202]

V. EQUIPMENT SPECIFIC REQUIREMENTS – APC LANDFILL GAS FLARE NO. 2

ATTACHMENT C

Actual Flare Combustion Temperature Observed
During the Most Recent Landfill Gas Flare No. 2 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
<div style="border: 2px solid black; padding: 5px; display: inline-block;">NOTE - Data will be included in this Table after Landfill Gas Flare No. 2 begins operation and source test data is</div>		
Historical Data ↓		

[Basis: SMAQMD Rule 202]

V. EQUIPMENT SPECIFIC REQUIREMENTS – (5) IC ENGINES, LANDFILL GAS CONTROL AND PRIME POWER, DRIVING ELECTRICAL GENERATORS

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:

IC Engine No. 1, Prime Power

P/O No. 17331 (permit number is for reference purposes only - not federally enforceable)
Manufacturer: Caterpillar
Model: G3616
Serial No.: 4CG122
Horsepower: 4,230 hp at 900 rpm
Fuel: Landfill gas
Driving: Electrical generator, 3.05MW

IC Engine No. 2, Prime Power

P/O No. 17332 (permit number is for reference purposes only - not federally enforceable)
Manufacturer: Caterpillar
Model: G3616
Serial No.: 4CG123
Horsepower: 4,230 hp at 900 rpm
Fuel: Landfill gas
Driving: Electrical generator, 3.05MW

IC Engine No. 3, Prime Power

P/O No. 17333 (permit number is for reference purposes only - not federally enforceable)
Manufacturer: Caterpillar
Model: G3616
Serial No.: 4CG124
Horsepower: 4,230 hp at 900 rpm
Fuel: Landfill gas
Driving: Electrical generator, 3.05MW

IC Engine No. 4, Prime Power

P/O No. 19705 (permit number is for reference purposes only - not federally enforceable)
Manufacturer: Caterpillar
Model: G3616
Serial No.: BLB00258
Horsepower: 4,230 hp at 900 rpm
Fuel: Landfill gas
Driving: Electrical generator, 3.05MW

V. EQUIPMENT SPECIFIC REQUIREMENTS – (5) IC ENGINES, LANDFILL GAS CONTROL AND PRIME POWER, DRIVING ELECTRICAL GENERATORS

IC Engine No. 5, Prime Power

P/O No. 16151 (permit number is for reference purposes only - not federally enforceable)

Manufacturer: Caterpillar
Model: G3616
Serial No.: BLB00259
Horsepower: 4,230 hp at 900 rpm
Fuel: Landfill gas
Driving: Electrical generator, 3.05MW

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

EMISSION LIMITATION REQUIREMENTS

1. Emissions from each IC engine shall not exceed the following limits:
[Basis: SMAQMD Rule 202]

P/O 17331 IC engine No. 1 or
P/O 17332 IC engine No. 2 or
P/O 17333 IC engine No. 3 or
P/O 19705 IC engine No. 4 or
P/O 16151 IC engine No. 5

Pollutant	Maximum Allowable Emission
ROC (A)	A. 0.133 grams/hp-hour (as hexane)
NOx (B)	B. 0.40 grams/hp-hour averaged over a 3-hour period, or C. 30.0 ppmvd at 15% O2 averaged over a 3-hour period
SO2 (C)	D. 0.29 grams/hp-hour
PM10 (C)	E. 0.113 grams/hp-hour
CO (B)	F. 2.55 grams/hp-hour averaged over a 3-hour period, or G. 366 ppmvd at 15% O2 averaged over a 3-hour period

- (A) The previous ROC limit is superseded by this more restrictive permittee requested emission limit
- (B) SMAQMD BACT determination.
- (C) The previous SMAQMD BACT determination is superseded by this more restrictive permittee requested emission limit.

V. EQUIPMENT SPECIFIC REQUIREMENTS – (5) IC ENGINES, LANDFILL GAS CONTROL AND PRIME POWER, DRIVING ELECTRICAL GENERATORS

2. Emissions from each IC engine shall not exceed the following limits:

[Basis: SMAQMD Rule 202]

P/O 17331 IC engine No. 1 or
P/O 17332 IC engine No. 2 or
P/O 17333 IC engine No. 3 or
P/O 19705 IC engine No. 4 or
P/O 16151 IC engine No. 5

Pollutant	Emission Factor (A) grams/hp-hour	Maximum Allowable Emissions (B) lb/quarter			
		Quarter 1	Quarter 2	Quarter 3	Quarter 4
ROC	0.133	2679	2709	2739	2739
NOx	0.40	8057	8147	8236	8236
SO2	0.29	5841	5906	5971	5971
PM10	0.113	2276	2301	2327	2327
CO	2.55	51364	51935	52506	52506

(A) Emission factor for ROC is a value requested by the permittee and is 95% of 20 ppm at 3% O2 measured as hexane.

Emission factors for NOx and CO are SMAQMD BACT determinations.

Emission factor for SO2 is a value requested by the permittee and is 95% of the previous SMAQMD BACT determination.

Emission factor for PM10 is a value requested by the permittee and is 95% of the previous SMAQMD BACT determination.

(B) Maximum Allowable Emissions are based on 4,230 hp, 24 hours/day and the number of days in each calendar quarter.

V. EQUIPMENT SPECIFIC REQUIREMENTS – (5) IC ENGINES, LANDFILL GAS CONTROL AND PRIME POWER, DRIVING ELECTRICAL GENERATORS

3. A. Combined emissions from the Landfill Gas Air Pollution Control System equipment (5 IC engines and 2 landfill gas flares) shall not exceed the following:
[Basis: SMAQMD Rule 202]

P/O 17331 IC engine No. 1 and
P/O 17332 IC engine No. 2 and
P/O 17333 IC engine No. 3 and
P/O 19705 IC engine No. 4 and
P/O 16151 IC engine No. 5 and
P/O 19704 Landfill Gas Flare No. 1 and
P/O 21097 Landfill Gas Flare No. 2

Pollutant	Maximum Allowable Emissions				
	Quarter 1 lb/quarter	Quarter 2 lb/quarter	Quarter 3 lb/quarter	Quarter 4 lb/quarter	Annually tons/year
ROC	30,847	31,190	31,511	31,511	62.5
NOx	43,151	43,631	44,110	44,110	87.5
SO2	44,698	45,195	45,715	45,715	90.7
PM10	13,350	13,501	13,648	13,648	27.1
CO	219,798	222,258	224,715	224,715	445.7

- B. Combined emissions from the 5 IC engines only (excluding the 2 landfill gas flares) shall not exceed the following:
[Basis: SMAQMD Rule 202]

P/O 17331 IC engine No. 1 and
P/O 17332 IC engine No. 2 and
P/O 17333 IC engine No. 3 and
P/O 19705 IC engine No. 4 and
P/O 16151 IC engine No. 5

Pollutant	Maximum Annual Allowable Emissions (A) tons/year
NOx	79.8

- (A) The NOx emissions from the five IC engines are limited by the amount of ERCs provided from sources other than the SMAQMD Priority Reserve Bank Essential Public Services Account. The 7.72 tons of NOx ERCs leased from the Essential Public

V. EQUIPMENT SPECIFIC REQUIREMENTS – (5) IC ENGINES, LANDFILL GAS CONTROL AND PRIME POWER, DRIVING ELECTRICAL GENERATORS

Services Account (see Condition No. 15) are not allowed to be used for on-site power generation by SMAQMD Rule 205 Section 102.1.

EQUIPMENT OPERATION AND MONITORING REQUIREMENT

4. Landfill gas combusted by the IC engines must be routed through a treatment system.
 - A. Treatment system, as interpreted by U.S. EPA (Applicability Determination Index Control No. 0200019), consists of:
 - i. filtering through a 10 micron filter and
 - ii. compression and
 - iii. refrigeration.**[Basis: SMAQMD Rule 202]**
5. The sulfur content of the landfill gas combusted in each engine shall not exceed 16 grains per 100 scf measured as hydrogen sulfide.
[Basis: SMAQMD Rule 202]
6. A sampling port, or other method approved by the SMAQMD Air Pollution Control Officer, shall be installed at the inlet landfill gas line to the IC engines.
 - A. The sampling port shall be located so that an accurate volume flow measurement can be performed.
[Basis: SMAQMD Rule 202]
7. The IC engine exhaust stack sample ports shall be permanent, accessible and located and constructed as per applicable U.S. EPA, CARB and U.S. OSHA requirements.
[Basis: SMAQMD Rule 202]
8. Each IC engine shall be equipped with a non-resetting totalizing hour meter.
[Basis: SMAQMD Rule 202]
9. An in-stack continuous emission monitoring system (CEMS), that has been approved by the SMAQMD Air Pollution Control Officer, shall be installed, operated and maintained in each IC engine exhaust stack.
 - A. The CEMS shall monitor and record the concentration of nitrogen oxides, carbon monoxide and oxygen.
 - B. The CEMS shall be installed and operated in compliance with the U.S. EPA Monitoring Requirements specified in 40 CFR 60.13.
 - C. The CEMS shall comply with the U.S. EPA Performance Specifications specified in 40

V. EQUIPMENT SPECIFIC REQUIREMENTS – (5) IC ENGINES, LANDFILL GAS CONTROL AND PRIME POWER, DRIVING ELECTRICAL GENERATORS

CFR 60 Appendix B, Performance Specifications 2, 3 and 4 (if CO 0-100 ppm) and 4a (if CO 0-200 ppm).

- D. The CEMS shall comply with the U.S. EPA Quality Assurance Procedures specified in 40 CFR 60 Appendix F.
- E. The DAS shall have the capability of expressing the measured NO_x and CO emissions in terms of parts per million by volume dry (ppmvd) corrected to 15% O₂.
- F. The DAS shall record NO_x and CO emissions in the engineering units defined by the Permit to Operate.
- G. The DAS shall record all data in compliance with U.S. EPA Quality Assurance Procedures specified in 40 CFR 60 Appendix F.
- H. The CEMS and DAS shall monitor and collect a minimum of data as follows:
 - i. Obtain at least two data points per hour in order to calculate a valid 1-hour arithmetic average. 40 CFR 60.13(e)(2) requires CEMS to complete at least one cycle of operation (sampling, analyzing and data recording) for each 15-minute period.
 - ii. Obtain valid 1-hour averages for 95 percent of the annual operating hours. An operating hour is any hour the IC engine combusts any landfill gas fuel.

[Basis: SMAQMD Rule 202]

RECORDKEEPING AND REPORTING REQUIREMENTS

10. The following records shall be continuously maintained onsite for the most recent five year period and shall be made available to the SMAQMD Air Pollution Control Officer upon request. Quarterly and annual records shall be made available for inspection within 30 days of the end of the reporting period.

[Basis: SMAQMD Rule 202]

Frequency	Information to be recorded
At all times	A. Permit number of each IC engine B. Manufacturer, model number and rating in horsepower of each IC engine. C. Continuously monitored NO _x , CO and O ₂ emission concentrations for

V. EQUIPMENT SPECIFIC REQUIREMENTS – (5) IC ENGINES, LANDFILL GAS CONTROL AND PRIME POWER, DRIVING ELECTRICAL GENERATORS

Frequency	Information to be recorded
	each IC engine as required by Condition No. 9. D. Most recent source test report.
Quarterly	E. Comparison of the actual emissions from the Landfill Gas Air Pollution Control System equipment (5 IC engines and 2 landfill gas flares) with the maximum allowable emissions in Condition No. 3.A. (lb/quarter)
Annually	F. Comparison of the actual emissions from the Landfill Gas Air Pollution Control System equipment (5 IC engines and 2 landfill gas flares) with the maximum allowable emissions in Condition No. 3.A. (tons/year) G. Comparison of the actual emissions from the 5 IC engines only (excluding the 2 landfill gas flares) with the maximum allowable emissions in Condition No. 3.B. (tons/year)

EMISSION REDUCTION CREDIT (ERC) REQUIREMENTS

11. For SMAQMD Rule 202 New Source Review purposes:

The permittee shall surrender (and has surrendered - See Condition No. 14) NOx ERCs to the SMAQMD Air Pollution Control Officer to offset the following amount of Landfill Gas Air Pollution Control System NOx emissions:

[Basis: SMAQMD Rule 202]

Equipment	Amount of NOx Emissions for which ERCs are to be Provided lb/quarter			
	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Landfill Gas Air Pollution Control system consisting of: 1. P/O 17331 IC engine No. 1 2. P/O 17332 IC engine No. 2 3. P/O 17333 IC engine No. 3 4. P/O 19705 IC engine No. 4 5. P/O 16151 IC engine No. 5 6. P/O 19704 Landfill Gas Flare No. 1 7. P/O 21097 Landfill Gas Flare No. 2	20,484	20,711	20,938	20,938

V. EQUIPMENT SPECIFIC REQUIREMENTS – (5) IC ENGINES, LANDFILL GAS CONTROL AND PRIME POWER, DRIVING ELECTRICAL GENERATORS

12. For U.S. EPA Pollution Control Project purposes:

The permittee shall surrender (and has surrendered - See Condition No. 15) NOx ERCs to the SMAQMD Air Pollution Control Officer to offset the following amount of Landfill Gas Air Pollution Control System NOx emissions:

[Basis: SMAQMD Rule 202]

Equipment	Amount of NOx Emissions for which ERCs are to be Provided (A) (B) tons/year
Landfill Gas Air Pollution Control system consisting of: 1. P/O 17331 IC engine No. 1 2. P/O 17332 IC engine No. 2 3. P/O 17333 IC engine No. 3 4. P/O 19705 IC engine No. 4 5. P/O 16151 IC engine No. 5 6. P/O 19704 Landfill Gas Flare No. 1 7. P/O 21097 Landfill Gas Flare No. 2	87.5

(A) The requirement for these ERCs is a result of U.S. EPA's Pollution Control Project offsetting policy:

- i. U.S. EPA excludes the project from Federal New Source Review rules if it qualifies as a Pollution Control Project.
- ii. The project qualifies as a Pollution Control Project if it is environmentally beneficial.
- iii. The project is environmentally beneficial if all NOx emissions from the project are offset.

(B) The amount of ERCs to be provided is not in addition to the amount specified in Condition No. 11.

V. EQUIPMENT SPECIFIC REQUIREMENTS – (5) IC ENGINES, LANDFILL GAS CONTROL AND PRIME POWER, DRIVING ELECTRICAL GENERATORS

13. The permittee shall surrender (and has surrendered - See Condition No. 16) PM10 ERCs to the SMAQMD Air Pollution Control Officer to offset the following amount of Landfill Gas Air Pollution Control System PM10 emissions:

[Basis: SMAQMD Rule 202]

Equipment	Amount of PM10 Emissions for which ERCs are to be Provided lb/quarter			
	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Landfill Gas Air Pollution Control system consisting of: 1. P/O 17331 IC engine No. 1 2. P/O 17332 IC engine No. 2 3. P/O 17333 IC engine No. 3 4. P/O 19705 IC engine No. 4 5. P/O 16151 IC engine No. 5 6. P/O 19704 Landfill Gas Flare No. 1 7. P/O 21097 Landfill Gas Flare No. 2	5,799	5,909	6,016	6,016

14. The following NOx/ROC ERCs have been surrendered to the SMAQMD Air Pollution Control Officer to comply with the SMAQMD Rule 202 New Source Review requirement as stated in Condition No. 11:

[Basis: SMAQMD Rule 202]

See Table in Condition No. 20 associated with Landfill Gas Flare No. 1.

15. The following NOx/ROC ERCs have been surrendered to the SMAQMD Air Pollution Control Officer to comply with the U.S. EPA requirement stated in Condition No. 12:

[Basis: SMAQMD Rule 202]

See Table in Condition No. 21 associated with Landfill Gas Flare No. 1.

16. The following PM10 ERCs have been surrendered to the SMAQMD Air Pollution Control Officer to comply with the SMAQMD Rule 202 New Source Review requirement as stated in Condition No. 13:

V. EQUIPMENT SPECIFIC REQUIREMENTS – (5) IC ENGINES, LANDFILL GAS CONTROL AND PRIME POWER, DRIVING ELECTRICAL GENERATORS

[Basis: SMAQMD Rule 202]

See Table in Condition No. 22 associated with Landfill Gas Flare No. 1.

EMISSION TESTING REQUIREMENTS

17. An emission test shall be conducted each calendar year to demonstrate compliance with Condition Nos. 1, 2, 3 and 5:
- 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 if the date has changed from that approved in the Source Test Plan.
 - C. Submit the source test report to the SMAQMD Air Pollution Control Officer within 60 days from the completion of the source test.
 - D. Each IC engine shall be operated at full load (>90%) during the source test.
 - E. The source test shall be conducted at the exhaust of each IC engine (except for hydrogen sulfide test which shall use the fuel inlet) and shall include a test for:
 - i. Reactive organic compounds, ROC
 - ii. Nitrogen oxides, NO_x
 - iii. Carbon monoxide, CO
 - iv. Particulate Matter less than 10um, PM₁₀
 - v. Hydrogen sulfide, H₂S, (fuel inlet)
 - F. A Relative Accuracy Test of the Continuous Emissions Monitoring System, as specified in Condition No. 9.B, shall be performed at the time of the yearly emissions test.
 - G. The SMAQMD Air Pollution Control Officer may waive the annual source test requirement for up to two years and for up to two of the five IC engines if, in the SMAQMD Air Pollution Control Officer's sole judgment, three consecutive source test results indicate that an adequate compliance margin has been maintained.
 - i. If there is a subsequent exceedance of the emission limits during a source test, the

V. EQUIPMENT SPECIFIC REQUIREMENTS – (5) IC ENGINES, LANDFILL GAS CONTROL AND PRIME POWER, DRIVING ELECTRICAL GENERATORS

frequency of testing for all five IC engines shall return to annually.

- ii. In no case shall an IC engine operate more than 8,760 hours or 5 years without a source test as required by SMAQMD Rule 412 Stationary Internal Combustion Engines Located at Major Stationary Sources of NO_x, Section 402 Source Testing Frequency (NO_x, CO and NMHC).
- [Basis: SMAQMD Rule 202]**

V. EQUIPMENT SPECIFIC REQUIREMENTS – GASOLINE DISPENSING FACILITY

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:

Gasoline Dispensing Facility

P/O No.: 16026 (permit number is for reference purposes only - not federally enforceable)

Phase I Equipment		Phase II Equipment	
Number of and Capacity of Tanks	Phase I Type	Number of Nozzles	Phase II Type
(1) 2,500 gallon (aboveground)	Two Point	1	Balance

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

EMISSION LIMITATION REQUIREMENTS

- Emissions from the gasoline dispensing facility shall not exceed the following limits:
[Basis: SMAQMD Rule 202]

Pollutant	Emission Factor (A) lb/1000 gallons throughput	Maximum Allowable Emissions (B) lb/quarter
ROC	1.52	46
NOx	NA	NA
SO2	NA	NA
PM10	NA	NA
CO	NA	NA

(A) Emission factor for ROC from *Gasoline Service Station Industrywide Risk Assessment Guidelines*, California Air Pollution Control Officer’s Association (CAPCOA), December 1997, Appendix A, Scenario 3B.

(B) Based on a maximum gasoline throughput of 30,000 gallons/quarter.

V. EQUIPMENT SPECIFIC REQUIREMENTS – GASOLINE DISPENSING FACILITY

EQUIPMENT OPERATION AND MONITORING REQUIREMENTS

2. The gasoline dispensing facility throughput shall not exceed the following limit:
[Basis: SMAQMD Rule 202]

Equipment	Maximum Allowable Gasoline Throughput gallons/calendar quarter
Gasoline Dispensing Facility	30,000

3. All vapor recovery system components shall be installed, operated and maintained in accordance with the California Air Resources Board (CARB) Executive Order G-70-116F, ConVault Aboveground Tank Vapor Recovery System. Section 41954(f) of the California Health And Safety Code prohibits the installation of any vapor control system unless the system has been certified by the state board.
[Basis: SMAQMD Rule 448 and Rule 449]
4. All applicable components shall be maintained to be leak free and vapor tight, as defined in SMAQMD Rule 448, Sections 205 and 209.
[Basis: SMAQMD Rule 448 and Rule 449]
5. Each vent pipe shall be equipped with a CARB certified pressure/vacuum relief valve. Plumbing may be manifolded to reduce the number of pressure/vacuum relief valves needed. The settings of the pressure/vacuum relief valves shall be as follows:
A. pressure: three (3.0) ± one-half (0.5) inches of water column
B. vacuum: eight (8.0) ± two (2.0) inches of water column
[Basis: SMAQMD Rule 448 and Rule 449]
6. The storage tank vent pipe shall be maintained white, silver or beige. Colors which similarly prevent the heating of the system due to solar gain may also be used, provided they are listed in the U.S. EPA AP42 as having a factor the same as or better than the colors listed above.
[Basis: SMAQMD Rule 448 and Rule 449]

V. EQUIPMENT SPECIFIC REQUIREMENTS – GASOLINE DISPENSING FACILITY

EMISSION REDUCTION CREDIT (ERC) REQUIREMENTS

7. ROC ERCs shall be surrendered (and have been surrendered - see Condition No. 8) to the SMAQMD Air Pollution Control Officer to offset the following amount of project ROC emissions for SMAQMD Rule 202 New Source Review purposes:

[Basis: SMAQMD Rule 202]

Equipment	Amount of Project ROC Emissions For Which ERCs Are to be Provided lb/quarter			
	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Gasoline Dispensing	45	46	46	46

8. The following ROC ERCs have been surrendered to the SMAQMD Air Pollution Control Officer to comply with the SMAQMD Rule 202 New Source Review requirement as stated in Condition No. 7:

[Basis: SMAQMD Rule 202]

Emission Reduction Credit Certificate No.	Face Value of ROC ERC Certificates Surrendered lb/quarter				Inter-Pollutant Trading Ratio	Offset Ratio	Value Applied to the Project ROC Emission Liability lb/quarter			
	Qtr 1	Qtr 2	Qtr 3	Qtr 4			Qtr 1	Qtr 2	Qtr 3	Qtr 4
C02-2-001 SMAQMD Community Bank Lease Lease expires on: 07-01-2007	45	46	46	46	N/A	1.0:1	45	46	46	46

- (A) Emission Reduction Credits in the amount specified in Condition No. 8 shall be provided at all times that the permitted equipment is allowed to operate:

- i. The permit shall expire on the date that the ERCs expire unless replacement ERCs have been provided as specified in (ii) below.
- ii. When ERCs are provided that have an expiration date, **and prior to their expiration only**, the permittee can provide replacement ERCs. The permittee shall submit a valid permit application to modify the current SMAQMD Permit to Operate and shall pay the required permit fees. The application shall be filed prior to the ERC expiration date such that sufficient time is available to SMAQMD staff to process the application.
 - a. The application shall be evaluated in accordance with the requirements of the current SMAQMD Rule 202 - New Source Review and Rule 204 - Emission Reduction Credits.

V. EQUIPMENT SPECIFIC REQUIREMENTS – GASOLINE DISPENSING FACILITY

- b. ERCs shall be required in an amount which is the larger of:
 - (1) The originally specified amount, or
 - (2) The amount specified by the current SMAQMD Rule 202 - New Source Review at the time of replacement.
- iii. Failure to provide replacement ERCs prior to the expiration date of the current ERCs associated with the SMAQMD Permit to Operate shall require that the permittee reapply for an Authority to Construct and Permit to Operate for the subject equipment if continued operation of the equipment is desired. The equipment will be subject to Best Available Control Technology requirements and offsetting requirements of SMAQMD Rule 202 - New Source Review at the time of repermitting.

NOTIFICATION AND REPORTING REQUIREMENTS

- 9. Notify the SMAQMD one week in advance of the date and time of the test required by Condition No. 11. SMAQMD staff may observe the test to verify proper test procedure and reported results.
[Basis: SMAQMD Rule 202]

RECORDKEEPING REQUIREMENTS

- 10. The following record shall be continuously maintained on-site for the most recent five year period and shall be made available to the SMAQMD Air Pollution Control Officer upon request. Quarterly records shall be made available within 30 days after the close of the respective quarter.
[Basis: SMAQMD Rule 202]

Frequency	Information to be recorded
Quarterly	Volume of gasoline dispensed. (gallons)

EMISSION TESTING REQUIREMENTS

- 11. The owner or operator of the ConVault gasoline aboveground tank shall conduct and pass a static pressure performance test in accordance with the Bay Area Air Quality Management District, Manual of Procedures, Source Test Procedure ST-38 at least once in each twelve month period. The test results shall be submitted to the SMAQMD within 30 days of completion of the annual tests.
[Basis: SMAQMD Rule 448]

V. EQUIPMENT SPECIFIC REQUIREMENTS – TROMMEL SCREEN AND IC ENGINE (TS)

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:

Trommel Screen

P/O No. 19188 (permit number is for reference purposes only - not federally enforceable)
Manufacturer: Powerscreen
Model: 830

IC Engine (TS) (driving Trommel Screen)

P/O No. 19349 (permit number is for reference purposes only - not federally enforceable)
Manufacturer: Deutz
Model: BF6L914C
Serial No.: 8738125
Type: 4 cycle, turbocharged
Displacement: 6 L
Horsepower: 158 hp at 2150 rpm
Fuel: Diesel
EPA Family No.: 5DZXL06.5037
Use: Driving Trommel Screen

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

EMISSION LIMITATION REQUIREMENTS

- Emissions from the Trommel Screen shall not exceed the following limits:
[Basis: SMAQMD Rule 202]

P/O 19188 Trommel Screen

Pollutant	Emission Factor (A) lb/ton	Maximum Allowable Emissions (B)				
		Daily lb/day	Quarter 1 lb/quarter	Quarter 2 lb/quarter	Quarter 3 lb/quarter	Quarter 4 lb/quarter
ROC	NA	NA	NA	NA	NA	NA
NOx	NA	NA	NA	NA	NA	NA
SO2	NA	NA	NA	NA	NA	NA
PM10	0.01	4.5	334	334	334	334

V. EQUIPMENT SPECIFIC REQUIREMENTS – TROMMEL SCREEN AND IC ENGINE (TS)

Pollutant	Emission Factor (A) lb/ton	Maximum Allowable Emissions (B)				
		NA	NA	NA	NA	NA
CO	NA	NA	NA	NA	NA	NA

(A) Emission factor for PM10 is from the Title V permit evaluation conducted by the BAAQMD for a similar trommel screen process at a composting facility.

(B) Maximum Allowable Emissions are based on 450 tons/day and 33,436 tons/quarter.

2. Emissions from the IC Engine (TS) shall not exceed the following limits:

[Basis: SMAQMD Rule 202]

P/O 19349 IC Engine (TS)

Pollutant	Emission Factor (A) grams/hp-hr	Maximum Allowable Emissions (B)			
		Quarter 1 lb/quarter	Quarter 2 lb/quarter	Quarter 3 lb/quarter	Quarter 4 lb/quarter
ROC	0.27	41	41	41	41
NOx	4.33	661	661	661	661
SO2	0.16	24	24	24	24
PM10	0.16	24	24	24	24
CO	0.89	137	137	137	137

(A) The emission factors for ROC and NOx were supplied by Duetz USA because the CARB Off Road Engine Certification only lists the emission factor for the combined NMHC+NOx.

The emission factors for PM10 and CO are from the CARB Off Road Engine Certification for this engine model and family dated 09-20-2004.

The emission factor for SO2 is based on 0.05% sulfur by weight in the diesel fuel.

(B) Maximum Allowable Emissions are based on 158 hp and 439 hours/calendar quarter.

EQUIPMENT OPERATION REQUIREMENTS

3. The IC Engine (TS) shall not remain at the same location for more than 12 consecutive months.

[Basis: SMAQMD Rule 202]

V. EQUIPMENT SPECIFIC REQUIREMENTS – TROMMEL SCREEN AND IC ENGINE (TS)

4. The maximum amount of material processed in the Trommel Screen shall not exceed:
[Basis: SMAQMD Rule 202]

Equipment	Maximum Allowable Material Processed	
	tons/day	tons/quarter
Trommel Screen	450	33,436

5. The IC Engine (TS) shall not operate more than the following hours:
[Basis: SMAQMD Rule 202]

Equipment	Maximum Allowable Operating Hours hours/quarter
IC Engine (TS)	439.0

6. Material processed by the Trommel Screen shall have sufficient moisture to comply with SMAQMD Rule 401 for visible emissions.
[Basis: SMAQMD Rule 202]
7. The IC Engine (TS) shall be equipped with a non-resetting totalizing hour meter.
[Basis: SMAQMD Rule 202]
8. The IC Engine (TS) shall be fueled with:
- A. CARB diesel fuel, or
 - B. Alternative diesel fuel that has been verified through the CARB Verification Procedure for In-Use Strategies to Control Emissions from Diesel Engines, or
 - C. CARB diesel fuel utilizing fuel additives that have been verified through the CARB Verification Procedure for In-Use Strategies to Control Emissions from Diesel Engines.
- [Basis: SMAQMD Rule 202]**

V. EQUIPMENT SPECIFIC REQUIREMENTS – TROMMEL SCREEN AND IC ENGINE (TS)

RECORDKEEPING AND REPORTING REQUIREMENTS

9. The following records shall be continuously maintained onsite for the most recent five year period and shall be made available to the SMAQMD Air Pollution Control Officer upon request. Quarterly records shall be made available for inspection within 30 days of the end of the previous quarter.

[Basis: SMAQMD Rule 202]

Frequency	Information to be recorded
When IC Engine (TS) is moved	A. The location that the IC Engine (TS) is moved from. B. The location that the IC Engine (TS) is moved to. C. The length of time the IC Engine (TS) operated at the prior location.
Daily	D. The amount of material processed by the trommel screen. (tons/day)
Quarterly	E. The amount of material processed by the trommel screen. (tons/quarter) F. The number of hours that the IC Engine (TS) operated. (hours/quarter)

EMISSION REDUCTION CREDIT (ERC) REQUIREMENTS

10. ERCs shall be surrendered (and have been surrendered - see Condition No. 11) to the SMAQMD Air Pollution Control Officer to offset the following amount of project emissions for SMAQMD Rule 202 New Source Review purposes :

[Basis: SMAQMD Rule 202]

Equipment	Amount of Project Emissions for Which ERCs are to be Provided lb/quarter			
	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Trommel Screen				
PM10	334	334	334	334
IC Engine (TS)				

V. EQUIPMENT SPECIFIC REQUIREMENTS – TROMMEL SCREEN AND IC ENGINE (TS)

Equipment	Amount of Project Emissions for Which ERCs are to be Provided lb/quarter			
	Quarter 1	Quarter 2	Quarter 3	Quarter 4
ROC	41	41	41	41
NOx	661	661	661	661
SO2	24	24	24	24
PM10	24	24	24	24

11. The following ERCs have been surrendered to the SMAQMD Air Pollution Control Officer to comply with the SMAQMD Rule 202 New Source Review requirement as stated in Condition No. 10:

[SMAQMD Permit to Operate Nos. 19188, 19349]

Emission Reduction Credit Certificate No.	Face Value of ERC Certificates Surrendered lb/quarter				Offset Ratio	Value Applied to the Project Emission Liability lb/quarter			
	Qtr 1	Qtr 2	Qtr 3	Qtr 4		Qtr 1	Qtr 2	Qtr 3	Qtr 4
Trommel Screen									
2005-04 (A) Placer APCD Lincoln Brand Feeds									
PM10	501	501	501	501	1.5:1	334	334	334	334
IC Engine (TS)									
P06-3009 (B) Essential Public Services Account Lease SMAQMD Priority Reserve Bank Lease Expires on: 10-01-2008									
ROC	50	50	50	50	1.0:1	50	50	50	50
NOx	861	861	861	861	1.3:1	662	662	662	662

V. EQUIPMENT SPECIFIC REQUIREMENTS – TROMMEL SCREEN AND IC ENGINE (TS)

Emission Reduction Credit Certificate No.	Face Value of ERC Certificates Surrendered lb/quarter				Offset Ratio	Value Applied to the Project Emission Liability lb/quarter			
	Qtr 1	Qtr 2	Qtr 3	Qtr 4		Qtr 1	Qtr 2	Qtr 3	Qtr 4
SO2	24	24	24	24	1.0:1	24	24	24	24
2005-04 (A) Placer APCD Lincoln Brand Feeds									
PM10	42	42	42	42	1.5:1	28	28	28	28

- (A) The single PCAPCD ERC certificate No. 2005-04 is shown here split into two certificates for comparison with the ERC requirements of Condition No. 10 for the Trommel Screen and IC Engine.
- (B) Emission Reduction Credits to offset the amount specified in Condition No. 10 shall be provided at all times that the permitted equipment is allowed to operate:
- i. The permit shall expire on the date that the ERCs expire unless replacement ERCs have been provided as specified in (ii) below.
 - ii. When ERCs are provided that have an expiration date, **and prior to their expiration only**, the permittee can provide replacement ERCs. The permittee shall submit a valid permit application to modify the current SMAQMD Permit to Operate and shall pay the required permit fees. The application shall be filed prior to the ERC expiration date such that sufficient time is available to SMAQMD staff to process the application.
 - a. The application shall be evaluated in accordance with the requirements of the current SMAQMD Rule 202 - New Source Review and Rule 204 - Emission Reduction Credits.
 - b. ERCs shall be required in an amount which is the larger of:
 - (1) The originally specified amount, or
 - (2) The amount specified by the current SMAQMD Rule 202 - New Source Review at the time of replacement.
 - iii. Failure to provide replacement ERCs prior to the expiration date of the current ERCs associated with the SMAQMD Permit to Operate shall require that the permittee reapply for an Authority to Construct and Permit to Operate for the subject equipment if continued operation of the equipment is desired. The equipment will be subject to Best Available Control Technology requirements and offsetting requirements of SMAQMD Rule 202 - New Source Review at the time of repermitting.

EMISSION TESTING REQUIREMENTS

There are no periodic emission testing requirements.

**V. EQUIPMENT SPECIFIC REQUIREMENTS – TROMMEL SCREEN AND
IC ENGINE (TS)**

V. EQUIPMENT SPECIFIC REQUIREMENTS – GREENWASTE GRINDER AND IC ENGINE (GG)

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:

Greenwaste Grinder

P/O No. 18185 (permit number is for reference purposes only - not federally enforceable)
Manufacturer: Peterson Pacific Corporation
Model: HC5400

IC Engine (GG) (driving Greenwaste Grinder)

P/O No. 18184 (permit number is for reference purposes only - not federally enforceable)
Manufacturer: Caterpillar
Model: 3412
Serial No.: BDT00555
Type: 4 cycle, turbocharged
Displacement: 27 liters
Horsepower: 860 hp (641KW)
Fuel: Diesel
EPA Family No.: 1CPXL27.0HRP
Use: Driving Greenwaste Grinder

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

EMISSION LIMITATION REQUIREMENTS

1. Emissions from the Greenwaste Grinder shall not exceed the following limits:
[Basis: SMAQMD Rule 202]

P/O 18185 Greenwaste Grinder

Pollutant	Emission Factor (A) lb/ton	Maximum Allowable Emissions (B)				
		Daily lb/day	Quarter 1 lb/quarter	Quarter 2 lb/quarter	Quarter 3 lb/quarter	Quarter 4 lb/quarter
ROC	NA	NA	NA	NA	NA	NA
NOx	NA	NA	NA	NA	NA	NA
SO2	NA	NA	NA	NA	NA	NA
PM10	0.000586	0.3	20	20	20	20
CO	NA	NA	NA	NA	NA	NA

V. EQUIPMENT SPECIFIC REQUIREMENTS – GREENWASTE GRINDER AND IC ENGINE (GG)

(A) Emission factors are from U.S. EPA AP-42, Table 11.19.2-2 (8/2004), "Emission Factors for Crushed Stone Processing Operations". There are no specific emission factors for greenwaste grinding in U.S. EPA AP-42. The use of PM10 emission factors for crushed stone processing should be a conservative assumption.

The grinder is assigned the controlled tertiary rock crushing emission factor of 0.00054 lb/ton processed.

The transfer point is assigned the controlled conveyor transfer point emission factor of 0.000046 lb/ton processed.

The PM10 emission factor used in the table above is the sum of the two emission factors.

(B) Maximum Allowable Emissions are based on 450 tons/day and 33,436 tons/calendar quarter.

2. Emissions from the IC Engine (GG) shall not exceed the following limits:

[Basis: SMAQMD Rule 202]

P/O 18185 IC Engine (GG)

Pollutant	Emission Factor (A) grams/hp-hr	Maximum Allowable Emissions (B) lb/quarter			
		Quarter 1	Quarter 2	Quarter 3	Quarter 4
ROC	0.05	37	37	37	37
NOx	5.92	4377	4377	4377	4377
SO2	0.1645	122	122	122	122
PM10	0.09	67	67	67	67
CO	0.86	636	636	636	636

(A) The emission factors for ROC, NOx, PM10 and CO are based on data submitted by Caterpillar for this specific IC engine with Serial No. BDT00555

The emission factor for SO2 is based on 0.05% sulfur by weight in the diesel fuel.

These emission factors are used to establish offset requirements. These emission factors are not BACT requirements and do not supersede the U.S. EPA "non-road" IC engine emission limitations for this IC engine as follows:

- ROC 1.0 grams/hp-hr
- NOx 6.9 grams/hp-hr
- PM10 0.4 grams/hp-hr
- CO 8.5 grams/hp-hr

If the IC engine is tested in the future and emissions exceed the limits in the table above, but do not exceed the U.S. EPA "non-road" IC engine limits, then a permit application shall be submitted to increase the permitted emission limits and additional offsets, as needed, shall be provided.

V. EQUIPMENT SPECIFIC REQUIREMENTS – GREENWASTE GRINDER AND IC ENGINE (GG)

(B) Maximum Allowable Emissions are based on 860 hp, 24 hours/day and 390 hours/calendar quarter.

EQUIPMENT OPERATION REQUIREMENTS

3. The IC Engine (GG) shall not remain at the same location for more than 12 consecutive months.

[Basis: SMAQMD Rule 202]

4. The maximum amount of material processed in the Greenwaste Grinder shall not exceed:

[Basis: SMAQMD Rule 202]

Equipment	Maximum Allowable Material Processed	
	tons/day	tons/quarter
Greenwaste Grinder	450	33,436

5. The IC Engine (GG) shall not operate more than the following hours:

[Basis: SMAQMD Rule 202]

Equipment	Maximum Allowable Operating Hours hours/calendar quarter
IC Engine (GG)	390.0

6. Material processed by the Greenwaste Grinder shall have sufficient moisture or water spray bars shall be used to comply with SMAQMD Rule 401 for visible emissions.

[Basis: SMAQMD Rule 202]

7. The IC Engine (GG) shall be equipped with a non-resetting totalizing hour meter.

[Basis: SMAQMD Rule 202]

8. The IC Engine (GG) shall be fueled with:

A. CARB diesel fuel, or

B. Alternative diesel fuel that has been verified through the CARB Verification Procedure for In-Use Strategies to Control Emissions from Diesel Engines, or

C. CARB diesel fuel utilizing fuel additives that have been verified through the CARB Verification Procedure for In-Use Strategies to Control Emissions from Diesel Engines.

[Basis: SMAQMD Rule 202]

V. EQUIPMENT SPECIFIC REQUIREMENTS – GREENWASTE GRINDER AND IC ENGINE (GG)

RECORDKEEPING AND REPORTING REQUIREMENTS

9. The following records shall be continuously maintained onsite for the most recent five year period and shall be made available to the SMAQMD Air Pollution Control Officer upon request. Quarterly records shall be made available for inspection within 30 days of the end of the previous quarter.

[Basis: SMAQMD Rule 202]

Frequency	Information to be recorded
When equipment is moved	A. The location that the equipment is moved from. B. The location that the equipment is moved to. C. The length of time the equipment operated at the prior location.
Daily	D. The amount of material processed by the Greenwaste Grinder. (tons/day)
Quarterly	E. The amount of material processed by the Greenwaste Grinder. (tons/quarter) F. The number of hours that the IC Engine (GG) operated. (hours/quarter)

EMISSION REDUCTION CREDIT (ERC) REQUIREMENTS

10. ERCs shall be surrendered (and have been surrendered - see Condition No. 11) to the SMAQMD Air Pollution Control Officer to offset the following amount of project emissions for SMAQMD Rule 202 New Source Review purposes :

[Basis: SMAQMD Rule 202]

Equipment	Amount of Project Emissions For Which ERCs Are to be Provided lb/quarter			
	Quarter 1	Quarter 2	Quarter 3	Quarter 4
Greenwaste Grinder				
PM10	20	20	20	20
IC Engine (GG)				
ROC	37	37	37	37
NOx	4377	4377	4377	4377

V. EQUIPMENT SPECIFIC REQUIREMENTS – GREENWASTE GRINDER AND IC ENGINE (GG)

Equipment	Amount of Project Emissions For Which ERCs Are to be Provided lb/quarter			
	Quarter 1	Quarter 2	Quarter 3	Quarter 4
SO2	122	122	122	122
PM10	67	67	67	67

11. The following ERCs have been surrendered to the SMAQMD Air Pollution Control Officer to comply with the SMAQMD Rule 202 New Source Review requirement as stated in Condition No. 10:

[SMAQMD Permit to Operate Nos. 18184, 18185]

Emission Reduction Credit Certificate No.	Face Value of ERC Certificates Surrendered lb/quarter				Offset Ratio	Value Applied to the Project Emission Liability lb/quarter			
	Qtr 1	Qtr 2	Qtr 3	Qtr 4		Qtr 1	Qtr 2	Qtr 3	Qtr 4
Greenwaste Grinder									
2005-05 (A) Placer APCD Lincoln Brand Feeds									
PM10	30	30	30	30	1.5:1	20	20	20	20
IC Engine (GG)									
2005-05 (A) Placer APCD Lincoln Brand Feeds									
PM10	75	75	75	75	1.5:1	50	50	50	50
P05-2002 (B) Essential Public Services Account Lease SMAQMD Priority Reserve Bank Lease Expires on: 04-01-2009									

V. EQUIPMENT SPECIFIC REQUIREMENTS – GREENWASTE GRINDER AND IC ENGINE (GG)

Emission Reduction Credit Certificate No.	Face Value of ERC Certificates Surrendered lb/quarter				Offset Ratio	Value Applied to the Project Emission Liability lb/quarter			
	Qtr 1	Qtr 2	Qtr 3	Qtr 4		Qtr 1	Qtr 2	Qtr 3	Qtr 4
ROC	48	48	48	48	1.3:1	37	37	37	37
NOx	5690	5690	5690	5690	1.3:1	4377	4377	4377	4377
SO2	122	122	122	122	1.0:1	122	122	122	122
PM10	17	17	17	17	1.0:1	17	17	17	17

- (A) The single PCAPCD ERC certificate No. 2005-05 is shown here split into two certificates for comparison with the ERC requirements of Condition No. 10 for the Greenwaste Grinder and IC Engine (GG).
- (B) Emission Reduction Credits to offset the amount specified in Condition No. 10 shall be provided at all times that the permitted equipment is allowed to operate:
- i. The permit shall expire on the date that the ERCs expire unless replacement ERCs have been provided as specified in (ii) below.
 - ii. When ERCs are provided that have an expiration date, **and prior to their expiration only**, the permittee can provide replacement ERCs. The permittee shall submit a valid permit application to modify the current SMAQMD Permit to Operate and shall pay the required permit fees. The application shall be filed prior to the ERC expiration date such that sufficient time is available to SMAQMD staff to process the application.
 - a. The application shall be evaluated in accordance with the requirements of the current SMAQMD Rule 202 - New Source Review and Rule 204 - Emission Reduction Credits.
 - b. ERCs shall be required in an amount which is the larger of:
 - (1) The originally specified amount, or
 - (2) The amount specified by the current SMAQMD Rule 202 - New Source Review at the time of replacement.
 - iii. Failure to provide replacement ERCs prior to the expiration date of the current ERCs associated with the SMAQMD Permit to Operate shall require that the permittee reapply for an Authority to Construct and Permit to Operate for the subject equipment if continued operation of the equipment is desired. The equipment will be subject to Best Available Control Technology requirements and offsetting requirements of SMAQMD Rule 202 - New Source Review at the time of repermitting.

EMISSION TESTING REQUIREMENTS

There are no periodic emission testing requirements.

**V. EQUIPMENT SPECIFIC REQUIREMENTS – GREENWASTE GRINDER AND
IC ENGINE (GG)**

V. EQUIPMENT SPECIFIC REQUIREMENTS – IC ENGINE (SS), AUXILIARY ON STREET SWEEPER

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:

IC Engine, Auxiliary on Street Sweeper (SS)

P/O No. 19363 (permit number is for reference purposes only - not federally enforceable)

Manufacturer: John Deere
Model: 4045TF270
Serial No.: PE4045T533975
Type: 4 cycle, turbocharged
Displacement: 4.5 liters
Horsepower: 99 hp at 2500 rpm
Fuel: Diesel
EPA Family No.: 5JDXL04.5083
Use: Auxiliary on street sweeper powering vacuum system and brushes

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

EMISSION LIMITATION REQUIREMENTS

1. Emissions from the IC Engine (SS) shall not exceed the following limits:
[Basis: SMAQMD Rule 202]

P/O 19363 IC Engine (SS)

Pollutant	Emission Factor (A) grams/hp-hr	Maximum Allowable Emissions (B) lb/quarter			
		Quarter 1	Quarter 2	Quarter 3	Quarter 4
ROC	0.34	39	39	39	39
NOx	3.98	452	452	452	452
SO2	0.1645	19	19	19	19
PM10	0.18	20	20	20	20
CO	1.04	118	118	118	118

(A) The emission factors for ROC and NOx were supplied by John Deere because the CARB Off Road Engine Certification only lists the emission factor for the combined NMHC+NOx.

The emission factors for PM10 and CO are from the CARB Off Road Engine Certification for this engine model and family dated 10-04-2004.

The emission factor for SO2 is based on 0.05% sulfur by weight in the diesel fuel.

V. EQUIPMENT SPECIFIC REQUIREMENTS – IC ENGINE (SS), AUXILIARY ON STREET SWEEPER

(B) Maximum Allowable Emissions are based on 99 hp and 520 hours/calendar quarter.

EQUIPMENT OPERATION REQUIREMENTS

2. The IC Engine (SS) shall not remain at the same location for more than 12 consecutive months.

[Basis: SMAQMD Rule 202]

3. The IC engine (SS) shall not operate more than the following hours:

[Basis: SMAQMD Rule 202]

Equipment	Maximum Allowable Operating Hours hours/quarter
IC engine (SS)	520.0

4. The IC engine (SS) shall be equipped with a non-resetting totalizing hour meter.

[Basis: SMAQMD Rule 202]

5. The IC engine (SS) shall be fueled with:

- A. CARB diesel fuel, or
- B. Alternative diesel fuel that has been verified through the CARB Verification Procedure for In-Use Strategies to Control Emissions from Diesel Engines, or
- C. CARB diesel fuel utilizing fuel additives that have been verified through the CARB Verification Procedure for In-Use Strategies to Control Emissions from Diesel Engines.

[Basis: SMAQMD Rule 202]

RECORDKEEPING AND REPORTING REQUIREMENTS

6. The following records shall be continuously maintained onsite for the most recent five year period and shall be made available to the SMAQMD Air Pollution Control Officer upon request. Quarterly records shall be made available for inspection within 30 days of the end of the previous quarter.

[Basis: SMAQMD Rule 202]

Frequency	Information to be recorded
Quarterly	A. The number of hours that the IC Engine (SS) operated. (hours/quarter)

V. EQUIPMENT SPECIFIC REQUIREMENTS – IC ENGINE (SS), AUXILIARY ON STREET SWEEPER

EMISSION REDUCTION CREDIT (ERC) REQUIREMENTS

7. ERCs shall be surrendered (and have been surrendered - see Condition No. 8) to the SMAQMD Air Pollution Control Officer to offset the following amount of project emissions for SMAQMD Rule 202 New Source Review purposes :

[Basis: SMAQMD Rule 202]

Pollutant	Amount of Project Emissions for which ERCs are to be Provided lb/quarter			
	Quarter 1	Quarter 2	Quarter 3	Quarter 4
ROC	39	39	39	39
NOx	452	452	452	452
SO2	19	19	19	19
PM10	20	20	20	20

8. The following ERCs have been surrendered to the SMAQMD Air Pollution Control Officer as required in Condition No. 7:

[Basis: SMAQMD Rule 202]

Emission Reduction Credit Certificate No.	Face Value of ERC Certificates Surrendered lb/quarter				Offset Ratio	Value Applied to the Project Emission Liability lb/quarter			
	Qtr 1	Qtr 2	Qtr 3	Qtr 4		Qtr 1	Qtr 2	Qtr 3	Qtr 4
P06-3011 Essential Public Services Account SMAQMD Priority Reserve Bank (A) Lease Expires on: 10-01-2011									
ROC	39	39	39	39	1.0:1	39	39	39	39
NOx	452	452	452	452	1.0:1	452	452	452	452
SO2	19	19	19	19	1.0:1	19	19	19	19
PM10	20	20	20	20	1.0:1	20	20	20	20

V. EQUIPMENT SPECIFIC REQUIREMENTS – IC ENGINE (SS), AUXILIARY ON STREET SWEEPER

- (A) Emission Reduction Credits in the amount specified in Condition No. 8 shall be provided at all times that the permitted equipment is allowed to operate:
- i. The permit shall expire on the date that the ERCs expire unless replacement ERCs have been provided as specified in (ii) below.
 - ii. When ERCs are provided that have an expiration date, **and prior to their expiration only**, the permittee can provide replacement ERCs. The permittee shall submit a valid permit application to modify the current Permit to Operate and shall pay the required permit fees. The application shall be filed prior to the ERC expiration date such that sufficient time is available to SMAQMD staff to process the application.
 - a. The application shall be evaluated in accordance with the requirements of the current SMAQMD Rule 202 - New Source Review and SMAQMD Rule 204 - Emission Reduction Credits.
 - b. ERCs shall be required in an amount which is the larger of:
 - (1) The originally specified amount, or
 - (2) The amount specified by the current SMAQMD Rule 202 - New Source Review at the time of replacement.
 - iii. Failure to provide replacement ERCs prior to the expiration date of the current ERCs associated with the Permit to Operate shall require that the permittee reapply for an Authority to Construct and Permit to Operate for the subject equipment if continued operation of the equipment is desired. The equipment shall be subject to Best Available Control Technology requirements and offsetting requirements of SMAQMD Rule 202 - New Source Review at the time of repermitting.

EMISSION TESTING REQUIREMENTS

There are no periodic emission testing requirements.

VI. 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 permittee 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 shall be updated when a Title V permit modification occurs.

Equipment Description	Basis for the Exemption
Vehicles used to transport passengers or freight	SMAQMD Rule 201 Section 111.1 Vehicles used to transport passengers or freight.
Small internal combustion engines used for welders, compressors and generators.	SMAQMD Rule 201 Section 112.1 IC engines < 50 hp
Diesel fuel tank	SMAQMD Rule 201 Section 117 Containers or tanks used exclusively for the storage of unheated organic materials with an initial boiling point of 302 degrees F or greater or with an organic vapor pressure of 0.1 psia or less (at 20 degrees C).
Naptha/water storage tank	SMAQMD Rule 201 Section 117.3 Containers, tanks or associated transfer equipment used exclusively for the storage of organic liquids with a vapor pressure of 1.5 psia or less (at 20 degrees C) and having a storage capacity of 6076 gallons or less.
Small degreasers	SMAQMD Rule 201 Section 118.3 Unheated non-conveyorized solvent rinsing tanks or unheated non-conveyorized coating dip tanks of 100 gallons or less capacity and not using a halogenated solvent.
Maintenance shop	SMAQMD Rule 201 Section 121 Repairs and maintenance not involving changes to any equipment for which a permit has been granted under SMAQMD Rule 201 Section 301.
Air Stripping System	SMAQMD Rule 201 Section 122, < 2 lb/24 hours Other equipment deemed by the Air Pollution Control Officer and which would emit any pollutant, without the benefit of air pollution control devices, at a rate less than 2 pounds in any 24 hour period.

VII. 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 (NPS), 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).

NO_x

Nitrogen oxides.

VII. 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, NO_x, 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.

VII. 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
m ²	=	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

VII. ACRONYMS, ABBREVIATIONS AND UNITS OF MEASURE
