777 12TH STREET, 3RD FLOOR
SACRAMENTO, CA 95814-1908

SACRAMENTO METROPOLITAN
AIR QUALITY
MANAGEMENT DISTRICT

(916) 874-4800
FAX (916) 874-4899

PERMIT TO OPERATE

ISSUED TO: **KIEFER LANDFILL, DEPARTMENT OF WASTE MANAGEMENT AND RECYCLING, COUNTY OF SACRAMENTO**

EQUIPMENT LOCATION: **12701 KIEFER BLVD, SLOUGHOUSE, CA 95683**

PERMIT NO.	EQUIPMENT DESCRIPTION
24360	AIR POLLUTION CONTROL LANDFILL GAS FLARE NO. 1, , ENCLOSED TYPE,

SUBJECT TO THE FOLLOWING CONDITIONS:

GENERAL

1.

2. The equipment must be properly maintained and operated in accordance with the information submitted with the application and the manufacturer's recommendations at all times.

3.

DATE ISSUED: 03-24-2016
DATE REISSUED: 04-14-2016
DATE EXPIRES: 01-25-2017 (UNLESS RENEWED)

LARRY GREENE
AIR POLLUTION CONTROL OFFICER

BY: _____

REVOCABLE AND NON-TRANSFERABLE

777 12TH STREET, 3RD FLOOR
SACRAMENTO, CA 95814-1908

(916) 874-4800
FAX (916) 874-4899

4.

5.

6.

EMISSIONS LIMITATIONS

7.

8. Emissions from the Landfill Gas Flare No. 1 must not exceed the following:

Pollutant	Emission Limits
VOC (A)	A. 2% of inlet NMOC (equivalent to a 98% NMOC destruction efficiency), or B. 20 ppmvd at 3% O_2 measured as hexane

(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). NMOC is Non-Methane Organic Compounds.

777 12TH STREET, 3RD FLOOR
SACRAMENTO, CA 95814-1908

(916) 874-4800
FAX (916) 874-4899

SACRAMENTO METROPOLITAN
AIR QUALITY MANAGEMENT DISTRICT

9.

10.

REVOCABLE AND NON-TRANSFERABLE

777 12TH STREET, 3RD FLOOR
SACRAMENTO, CA 95814-1908

(916) 874-4800
FAX (916) 874-4899

SACRAMENTO METROPOLITAN
AIR QUALITY MANAGEMENT DISTRICT

11.

EQUIPMENT OPERATION REQUIREMENTS

12.

13. A sampling port, or other method approved by the SMAQMD Air Pollution Control Officer, must be installed at the inlet gas line to Landfill Gas Flare No. 1. The sampling port must be located so that an accurate volume flow measurement can be performed.

14. Landfill Gas Flare No. 1 exhaust sample ports must be permanent, accessible and located and constructed as per applicable U.S. EPA, CARB and U.S. OSHA requirements.

777 12TH STREET, 3RD FLOOR
SACRAMENTO, CA 95814-1908

(916) 874-4800
FAX (916) 874-4899

15.

16. Landfill Gas Flare No. 1 must be equipped with a temperature monitoring device.
    A. The thermocouple used to measure Landfill Gas Flare No. 1 temperature must be located at a distance that is greater than the distance equivalent to 0.6 seconds at the maximum flow rate downstream of the burner.
    B. The temperature monitoring device must be equipped with a continuous recorder.
    C. The temperature monitoring device must have an accuracy of ±1 percent of the temperature being measured expressed in degrees Celsius or ±0.5 degrees C, whichever is greater.
    D. The temperature monitoring device is not precluded from expressing measurements in degrees Fahrenheit as long as the aforementioned accuracy is met.
    E. The owner or operator must submit to the SMAQMD Air Pollution Control Officer for approval a description of the temperature monitoring device calibration procedure and schedule of calibration.

    [Basis: 40 CFR 60.756(b)(1)]

17. The Landfill Gas Flare must operate at a minimum combustion zone temperature no less than the 3-hour average temperature (measured by the thermocouple specified in Condition No. 16) as determined during the most recent complying source test minus 28 degrees C (50 degrees F). (The data from the most recent source test is summarized in Attachment A indicating the 3-hour average temperature measured by the thermocouple required by Condition No. 16.)

18.

19.

20.

21.

777 12TH STREET, 3RD FLOOR
SACRAMENTO, CA 95814-1908

(916) 874-4800
FAX (916) 874-4899

SACRAMENTO METROPOLITAN
AIR QUALITY MANAGEMENT DISTRICT

RECORD KEEPING AND REPORTING REQUIREMENTS

22. The following record must be continuously maintained on site for the most recent 5 year period, except as noted,

[Basis: 40 CFR 60.758]

Frequency	Information to be Recorded
At All Times	A. The following information measured during the initial performance test must be maintained for the life of the flare. Records of subsequent tests or monitoring must be maintained for a minimum of 5 years. **[Basis: 40 CFR 60.758(b)]** i. The landfill gas flare 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)]** ii. The percent reduction of NMOC, determined as specified in 40 CFR 60.752(b)(2)(iii)(B), achieved by the flare. **[Basis: 40 CFR 60.758(b)(2)(ii)]** D. All 3 hour periods of operation during which the landfill gas flare average combustion temperature was below the limit established in Condition No. 17. **[Basis: 40 CFR 60.758(c)(1)(i)]** F. Record of calibration reports for the temperature monitoring device. G. Records of source test plans and results to determine compliance with the limits in Condition No. 8 must be maintained for a minimum of 5 years.

777 12TH STREET, 3RD FLOOR
SACRAMENTO, CA 95814-1908

(916) 874-4800
FAX (916) 874-4899

SACRAMENTO METROPOLITAN
AIR QUALITY MANAGEMENT DISTRICT

Frequency	Information to be Recorded

23. A written report must be submitted to the SMAQMD Air Pollution Control Officer annually by the date indicated and must contain the following information.
[Basis: 40 CFR 60.758]

Frequency	Information to be Submitted
Annually By: January 31 For The Previous Calendar Year	A. All 3 hour periods of operation during which the Landfill Gas Flare average combustion temperature was below the limit established in Condition No. 17. **[Basis: 40 CFR 60.758(c)(1)(i)]**

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

25. A written SSM Immediate Report must be submitted to the SMAQMD Air Pollution Control Officer as indicated and must 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
Only required if a SSM event occurred. Within 2 working days and	A. If actions taken during a SSM event are not consistent with the procedures specified in the SSM Plan, the permit holder must: i. Report to the SMAQMD Air Pollution Control Officer, by telephone call or facsimile (fax), within 2 working days after commencing actions not consistent with the SSM Plan. ii. Follow with a letter to the SMAQMD Air Pollution Control Officer within

Frequency	Information to be Submitted
Within 7 working days	7 working days after the end of the SSM event that: 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.

26. A written SSM Periodic Report must be submitted to the SMAQMD Air Pollution Control Officer by the date indicated and must 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
Only required if a SSM event occurred within a reporting period. Submit by - January 31 and July 30 for the reporting periods - January 01 - June 30 and July 01 - December 31	A. If actions taken during a SSM event are consistent with the procedures specified in the SSM Plan, the permit holder must state such information in a SSM Report. B. The SSM Report must contain: 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.

27. The permit holder must 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 must be retained for at least 5 years following the date of each occurrence, measurement, maintenance, corrective action, report or record. At a minimum, the most recent 2 years of data must be retained on site. The remaining 3 years of data may be retained off site. Such files may be maintained on microfilm, on a computer, on computer floppy disks, on magnetic tape disks, microfiche, flash drive, external hard disc or any other type of electronic storage device.
[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 or shutdown when the startup or shutdown causes the source to exceed any applicable emission limitation in the relevant emission standards. B. The occurrence and duration of each malfunction of operation (i.e., process equipment) or the required air pollution control and monitoring equipment. C. All required maintenance performed on the air pollution control and monitoring

777 12TH STREET, 3RD FLOOR
SACRAMENTO, CA 95814-1908

(916) 874-4800
FAX (916) 874-4899

SACRAMENTO METROPOLITAN AIR QUALITY MANAGEMENT DISTRICT

Frequency	Information to be Recorded
	equipment. D. Actions taken during periods of startup, shutdown and malfunction (including corrective actions to restore malfunctioning process and air pollution control and monitoring equipment to its normal or usual manner of operation) when such actions are different from the procedures specified in the affected source's SSM Plan. 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. F. 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. G. Each period during which a continuous monitoring system (CMS) is malfunctioning or inoperative (including out-of-control periods). H. 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). I. All results of performance tests, CMS performance evaluations, and opacity and visible emission observations. J. All measurements as may be necessary to determine the conditions of performance tests and performance evaluations. K. All CMS calibration checks. L. All adjustments and maintenance performed on CMS. M. All documentation supporting initial notifications and notifications of compliance status under 40 CFR 63.9. N. All required CMS measurements (including monitoring data recorded during unavoidable CMS breakdowns and out-of-control periods). O. The date and time identifying each period during which the CMS was inoperative except for zero (low-level) and high-level checks. P. The date and time identifying each period during which the CMS was out of control, as defined in 40 CFR 63.8(c)(7). Q. 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. R. 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. S. The nature and cause of any malfunction (if known).

777 12TH STREET, 3RD FLOOR
SACRAMENTO, CA 95814-1908

(916) 874-4800
FAX (916) 874-4899

SACRAMENTO METROPOLITAN
AIR QUALITY MANAGEMENT DISTRICT

Frequency	Information to be Recorded
	T. The corrective action taken or preventive measures adopted. U. The nature of the repairs or adjustments to the CMS that was inoperative or out of control. V. The total process operating time during the reporting period. W. All procedures that are part of a quality control program developed and implemented for CMS under 40 CFR 63.8(d).

28.

EMISSION REDUCTION CREDIT (ERC) REQUIREMENTS

29.

777 12TH STREET, 3RD FLOOR
SACRAMENTO, CA 95814-1908

(916) 874-4800
FAX (916) 874-4899

SACRAMENTO METROPOLITAN
AIR QUALITY MANAGEMENT DISTRICT

30.

31.

777 12TH STREET, 3RD FLOOR
SACRAMENTO, CA 95814-1908

(916) 874-4800
FAX (916) 874-4899

SACRAMENTO METROPOLITAN
AIR QUALITY MANAGEMENT DISTRICT

32.

33.

777 12TH STREET, 3RD FLOOR
SACRAMENTO, CA 95814-1908

(916) 874-4800
FAX (916) 874-4899

SACRAMENTO METROPOLITAN
AIR QUALITY MANAGEMENT DISTRICT

34.

777 12TH STREET, 3RD FLOOR
SACRAMENTO, CA 95814-1908

(916) 874-4800
FAX (916) 874-4899

SACRAMENTO METROPOLITAN
AIR QUALITY MANAGEMENT DISTRICT

35.

777 12TH STREET, 3RD FLOOR
SACRAMENTO, CA 95814-1908

(916) 874-4800
FAX (916) 874-4899

SACRAMENTO METROPOLITAN
AIR QUALITY MANAGEMENT DISTRICT

777 12TH STREET, 3RD FLOOR
SACRAMENTO, CA 95814-1908

(916) 874-4800
FAX (916) 874-4899

SACRAMENTO METROPOLITAN
AIR QUALITY MANAGEMENT DISTRICT

36.

777 12TH STREET, 3RD FLOOR
SACRAMENTO, CA 95814-1908

(916) 874-4800
FAX (916) 874-4899

SACRAMENTO METROPOLITAN
AIR QUALITY MANAGEMENT DISTRICT

EMISSION TESTING REQUIREMENTS

37. An emission test must be conducted each calendar year to demonstrate compliance with Condition Nos. 8 and 17:
    A. Submit a source test plan to the SMAQMD Air Pollution Control Officer for approval at least 30 days before the source test is to be performed.
    B. Notify the SMAQMD Air Pollution Control Officer at least 7 days prior to the source test date.
    C. Submit the source test report to the SMAQMD Air Pollution Control Officer within 60 days from the completion of the source test.
    D. The source test must be conducted at the exhaust of the landfill gas flare and must include a test for:
        i. Either:
            1) NMOC destruction efficiency, or
            2) Total NMOC (ppmvd at 3% O_2 measured as hexane)

        vi. Combustion temperature (as measured by the thermocouple required by Condition No. 16)

    F. Compliance with the emission limits of Condition No. 8 must be determined using one of the following source test methods:

        iii. NMOC – U.S. EPA Method 25, 25C or 18.

        vi. Any other method approved by the U.S. Environmental Protection Agency and the SMAQMD Air Pollution Control Officer.

777 12TH STREET, 3RD FLOOR
SACRAMENTO, CA 95814-1908

(916) 874-4800
FAX (916) 874-4899

SACRAMENTO METROPOLITAN
AIR QUALITY MANAGEMENT DISTRICT

RACT DETERMINATION REQUIREMENTS

39. This Permit to Operate 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: 40 CFR 51.912]

40. The expiration date shown on this Permit to Operate is for State of California purposes. For federal enforcement purposes the RACT provisions of this permit that are approved by the U.S. Environmental Protection Agency must 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: 40 CFR 51.912]

777 12TH STREET, 3RD FLOOR
SACRAMENTO, CA 95814-1908

(916) 874-4800
FAX (916) 874-4899

SACRAMENTO METROPOLITAN
AIR QUALITY MANAGEMENT DISTRICT

Your application for this air quality Permit to Operate was evaluated for compliance with Sacramento Metropolitan Air Quality Management District (SMAQMD), state and federal air quality rules.

777 12TH STREET, 3RD FLOOR
SACRAMENTO, CA 95814-1908

(916) 874-4800
FAX (916) 874-4899

SACRAMENTO METROPOLITAN
AIR QUALITY MANAGEMENT DISTRICT

ATTACHMENT A

Landfill Gas Flare No. 1 Combustion Temperature
Recorded During Most Recent Complying Source Test
(see Condition No. 17)

Date of Source Test	3-Hour Average Combustion Temperature Recorded During Source Test degrees F	Minimum 3-Hour Combustion Temperature Limit to Demonstrate Continuing Compliance degrees F

Historical Data		

REVOCABLE AND NON-TRANSFERABLE