SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT ENGINEERING AND COMPLIANCE DIVISION PERMIT APPLICATION EVALUATION AND CALCULATIONS	PAGES 6	PAGE 1
	APPL NO	DATE 12/29/2011
	PROCESSED BY CT	CHECKED BY

Compliance Assurance Monitoring (CAM) Plan Evaluation
(40 CFR Part 64)

OWNER/OPERATOR:

USA WASTE OF CALIFORNIA
EL SOBRANTE LANDFILL

FACILITY LOCATION:

10910 DAWSON CANYON DRIVE
CORONA, CA 92883

CO ID: 113674

CONTACT PERSON:

Mike Williams
Senior Distric t Manager
Ph: (951) 277- 5103

APPLICATION NO.:

Compliance Assurance Monitoring (CAM) plan for Non-Methane Hydrocarbons (NMHC) emissions generated by MSW landfill and NMHC control.

INTRODUCTION:

This evaluation is for Compliance Assurance Monitoring (CAM) plan under 40 CFR Part 64. The facility, El Sobrante Landfill, is a Title V facility. This CAM plan is submitted because the landfill gas collected at the landfill is required to be controlled to meet federally enforceable (Reg XIII) hydrocarbon emission limits in the permit and the emissions are greater than the major source thresholds. The control technologies are the enclosed flares and IC engines.

Flares:

A/N	Permit No.	Issue Date			Permit Type
499536	G5700 Permit Condition No. 22 and 23 - SCAQMD Rule 1303 (b)(2) offsets	1/1/2010	ACTIVE	Two Flares, No. 1 and No. 2, Enclosed, LFG, 1390 scfm each ROG limit 1.44 lb/hr per flare Flare No. 3, Enclosed, LFG, 6325 scfm, ROG limit, 6.6 lb/hr	PERMIT TO OPERATE GRANTED

Flare	Source Test Report Date	Exhaust Temperature	TGNMOC as methane (lb/hr)
2	10/12/04	1571	0.086
1	11/7/05	1581	0.090
3	8/14/07	1502	0.638
3	9/11/08	1499	1.801
3	9/8/10	1532	0.206

APPLICABILITY & REQUIREMENTS:

CAM rule (40 CFR Part 64) covers emission units that are evaluated on a pollutant by pollutant basis for equipment that meet the definition of pollutant specific emission units (PSUEs). The rule applies to each PSUE if the unit is located at a major source that is required to obtain a Part 70 or 71 (Title V) permit. The CAM plan requirements are;

- Describe the indicators to be monitored
- Describe ranges or the process to set indicator ranges
- Describe the performance criteria for the monitoring, including specifications for obtaining representative data, verification procedures to confirm monitoring operational status, QA/QC procedures and monitoring frequency.
- Provide a justification for the use of parameters, ranges, and monitoring approach.
- Provide emissions test data, if necessary
- Provide an implementation plan for installing, testing, and operating the monitoring.

EVALUATION:

For flares, NMOC emission limit is 20 ppmv@3% O2, as hexane, or 98 wt% reduction of NMOC. This limit is based on 40 CFR 60, subpart WWW, 40 CFR 63, subpart AAAA and AQMD Rule 1150.1

SCAQMD BACT Criteria:

	Criteria Pollutants				
Rating/Size	**VOC**	**NOx**	**SOx**	**CO**	**PM10**
Digestor Gas or Landfill Gas from Non-Hazardous Waste Landfill	Ground Level, Shrouded, ≥ 0.6 Sec. Retention Time at ≥ 1400 °F, Auto Combustion Air Control, Automatic Shutoff Gas Valve and Automatic Re-Start System (1988)	0.06 lbs/MM Btu (1988)		Ground Level, Shrouded, ≥ 0.6 Sec. Retention Time at ≥ 1400 °F, and Auto Combustion Air Control (1988)	Knockout Vessel (1988)
Landfill Gas from Hazardous Waste Landfill	Ground Level, Shrouded, ≥ 0.6 Sec. Retention Time at ≥ 1500 °F, Auto Combustion Air Control, Automatic Shutoff Gas Valve and Automatic Re-Start System (1988)	0.06 lbs/MM Btu (1988)		Ground Level, Shrouded, ≥ 0 6 Sec. Retention Time at ≥ 1500 °F, and Auto Combustion Air Control (1988)	Knockout Vessel (1988)

MONITORING & PERFORMANCE:

Indicator: When the flare is in operation continuous temperature monitoring in the exhaust stack and temperature recorder must be in operation.
Temperature shall be measured at a location above the flame zone, at least 0.6 second downstream of the burner and not less than 5 feet from the top of the stack.
Temperature monitor shall have an accuracy of +/- 1% of the temperature being measured.
Installation, replacement and preventative maintenance for the temperature monitors shall be in accordance with manufacturer's specifications.

Range: Minimum temperature of 1400 deg F for all the flares is required (see BACT requirement above). Temperature shall be recorded in degrees Fahrenheit. The data collected by an electronic data recorder shall record at least every 15 minutes.

Excursion can be defined as anytime during operation when combustion temperature is lower than the minimum combustion temperature specified for the flare in the permit.

Upon detecting any excursion from the acceptable range of readings, the permittee shall investigate the excursion and take corrective action to minimize excessive emissions and prevent recurrence of the excursion as expeditiously as practicable.

Frequency: Continuous temperature monitoring and recording. Valid hour of data must have measured values for at least three 15-minute monitoring periods within the hour.
[Minimum 4 times per hr if post-control emissions are $\geq$ MST; or
Minimum 1 time per day if post-control emissions are < MST].
All exceedances shall be reported semi-annually that includes summary of information, at a minimum – number, duration and cause, and corrective actions taken.
Same requirements apply for the monitor downtime incidences.

Monitoring Operation & Maintenance:

The permittee shall be conditioned to comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7

Recordkeeping & Reporting:

The permittee shall be conditioned to comply with the recordkeeping and reporting requirements of 40 CFR Part 64.9.

Performance Test:

Each flare shall be tested annually to show compliance with the NMOC hourly emission rate (offset limit), flare operating temperature, deg. F, TNMOC concentration (exhaust) in ppmv at 3% O2, as hexane or demonstrate 98 wt% DRE. Recent Source Tests Results: (See enclosed S/T Summary Tests Results). Applicant has attached source test reports of some of the flares, and the flares comply with permit limits (see the table above).

Quality Improvement Plan:

If the District or EPA determine that a Quality Improvement Plan (QIP) is required under 40 CFR Part 64.7 (d)(2), the permittee shall develop and implement the QIP in accordance with 40 CFR Part 64.8.

IC Engines

A/N	Permit No.	Issue Date			Permit Type
430422	F86553 Permit Condition No. 13. – SCAQMD Rule 1303 (b)(2)- Offset	12/20/06	ACTIVE	I C E (1877 HP) LANDFILL GAS, Deutz, Driving 1.358MW Generator	PERMIT TO OPERATE GRANTED
430424	F86554 Permit Condition No. 13. – SCAQMD Rule 1303 (b)(2) offset	12/20/06	ACTIVE	I C E (1877 HP) LANDFILL GAS, Deutz, Driving 1.358MW Generator	PERMIT TO OPERATE GRANTED
430726	F86555 Permit Condition No. 13. – SCAQMD Rule 1303 (b)(2) offset	12/20/06	ACTIVE	I C E (1877 HP) LANDFILL GAS, Deutz, Driving 1.358MW Generator	PERMIT TO OPERATE GRANTED

ROG emissions limit = 1.65 lbs/hr per engine

ICE Number	Source Test Report Date	Exhaust O2 Concentration %ge	TGNMOC as methane (lb/hr)
ICE No. 1	10/18/10	6.99	0.15
	1/5/10	7.44	0.64
	10/22/09	6.88	0.13
ICE No. 2	10/18/10	7	0.21
	1/5/10	6.97	0.62
	3/16/06	6.8	0.24
ICE No. 3	10/18/10	7.22	0.22
	11/1/04	6.33	0.16

MONITORING & PERFORMANCE:

Indicator Measurement approach:

Stack O2 CEMS, part of Rule 218 and Rule 1110.2 CEMS (NOx and O2) has been required by permit condition no. 17, in the P/O's issued for these three ICE's, applicant has been required to monitor O2 continuously (with CEMS).

Indicator Range:

The stack O2 concentration shall be between 5% and 8%. The IC Engines are lean burn combustion engines. Lean burn engines run with relatively high amounts of excess air in the exhaust stream to lower combustion temperatures and create less NOx.

Frequency:

When the engines are in operation continuous oxygen monitoring in the exhaust stack and oxygen recorder must be in operation.

The oxygen measuring instrument shall have a range approved by O2 CEMS plan or 40 CFR part 60 Appendix F.

The data collected by an electronic data recorder shall record at least every 15 minutes.
Excursion can be defined as any period of operation during which the oxygen concentration is less than 5% or more than 8%, for one hour average except during periods of engine startup and shutdown.

Upon detecting any excursion from the acceptable range of readings, the permit holder shall investigate the excursion and take corrective action to minimize excessive emissions and prevent recurrence of the excursion as expeditiously as practicable.

Continuous oxygen monitoring and recording. Valid hour of data must have measured values for at least three 15-minute monitoring periods within the hour.

[Minimum 4 times per hr if post-control emissions are > MST; or Minimum 1 time per day if post-control emissions are < MST].

All exceedances shall be reported semi-annually that includes summary of information, at a minimum
- number, duration and cause, and corrective actions taken.
Same requirements apply for the monitor downtime incidences.

Monitoring Operation & Maintenance:

The permit holder shall be conditioned to comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7

Recordkeeping & Reporting:

The permit holder shall be conditioned to comply with the recordkeeping and reporting requirements of 40 CFR Part 64.9

Performance Test:

Each engine shall be tested at least every two years or 8760 hours, whichever comes first to show compliance with the NMOC hourly emission rate (offset limit).

Quality Improvement Plan:

If the District or EPA determine that a Quality Improvement Plan (QIP) is required under 40 CFR Part 64.7 (d)(2), permit holder shall develop and implement the QIP in accordance with 40 CFR Part 64.8.

[RULE 3004(A) (4)-PERIODIC MONITORING, 40CFR PART 64]

Rules:
Proposed CAM plan for TNMOC control is expected to comply with the applicable requirements of the 40CFR Part 64 and Rule 1303 (b) (2)-Emission offsets.

RECOMMENDATION:
It is recommended that CAM conditions be included in the proposed Renewal permit.