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

OWNER/OPERATOR:

OC WASTE & RECYCLING, FRB
300 N. FLOWER STREET, SUITE 400
SANTA ANA, CA 92612

FACILITY LOCATION:

11002 BEE CANYON ACCESS ROAD (FRANK R. BOWERMAN LANDFILL)
IRVINE, CA 92602

CO ID: **69646**

CONTACT PERSON:

MOHAMMAD SALAM, CIVIL ENGINEER
(714) 834 -4065

APPLICATION NO.: **505439**

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

INTRODUCTION:

This application was submitted on January 14, 2010 for Compliance Assurance Monitoring (CAM) plan under 40 CFR Part 64. The facility, Santiago Canyon Landfill is a Title V facility for which Title V permit revision (01) was issued April 23, 2008. This CAM plan is submitted for MSW LF emission unit, control technology is (are) enclosed flare (s) to control a specific pollutant- Non-Methane Hydrocarbons (NMHC). Permitted LFG flaring system, F96619 (A/N 457095), consists of five (5) flares (see enclosed copy of the permit),

I-1, I-2, I-3, & I-4	each 1700 scfm LFG, and with condensate injection (I-3, I-4)
I-5	4200 scfm LFG and with condensate injection.

The CAM rule became effective November 21, 1997, however requirements of the plan were delayed while Title V program being implemented. Thus, owners and operators were subject to CAM plan requirement at the time of their initial Title V permit renewal. Title V renewal A/N 491773 for this facility was submitted 10/28/2008.

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:

Frank R. Bowerman landfill facility currently operates LFG flaring system under PO F96619 (A/N 457095).

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

Also, the facility is subject to NMOC limit based on Rule 1303 (b) (2) - emission offsets, that are based on LFG flow rate, flare operating temperature and NMOC destruction efficiency..

Flares I-1, I-2, I-3 & I-4:	LFG flow rate = 1700 scfm, T= min. 1400 deg F , T= min. 1400 deg F, NMOC limit is 0.78 lbs/hr as Methane
Flare I-5 :	LFG flow rate = 4200 scfm, T= min. 1400 deg F, NMOC limit is 1.9 lbs/hr as Methane
Flare Station:	NMOC limit is 5.0 lbs/hr as Methane

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.
There shall be multiple monitors installed on each flare. When a thermocouple malfunctions or is non-functional, it shall be replaced.

Range: Minimum temperature of 1400 deg F is required. 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 any three-hour period of operation during which avg. combustion temperature is greater than 28 deg C (50 deg. F) below the minimum combustion temperature specified for the flare.
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 ≥ 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 compliance plan shall be conditioned to comply with the compliance assurance monitoring operation and maintenance requirements of 40 CFR Part 64.7

Recordkeeping & Reporting:

The compliance plan 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 98wt% DRE.

Recent Source Tests Results: (See enclosed S/T Summary Tests Rresults)

Review of the S/Ts conducted during 2006 through 2009for each of the flare tests results comply with permit limits,

Inlet LFG flow rate limit
Flare operating temperature limit
TNMOC lb/hr emission limit
TNMOC ppmv in exhaust @ 3%O2, as hexane, and
TNMOC DRE wt% 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), the permittee shall develop and implement the QIP in accordance with 40 CFR Part 64.8.

Permit condition for the LFG flare, F96619 (A/N 457095), Section D, shall be amended with the following;

THE OPERATOR SHALL OPERATE AND MAINTAIN THIS EQUIPMENT ACCORDING TO THE FOLLOWING REQUIREMENTS:

THE TEMPERATURE IN EXHAUST STACK SHALL BE MAINTAINED AT A MINIMUM OF 1,400 DEGREES FAHRENHEIT, AVERAGED OVER A 15- MINUTE PERIOD AND ONE-HOUR AVERAGE SHALL BE COMPUTED FROM DATA POINTS IN EACH ONE-HOUR PERIOD, WHENEVER THE EQUIPMENT IT SERVES IS IN OPERATION.

CONTINUOUS EXHAUST TEMPERATURE MONITORING AND RECORDING SYSTEM SHALL BE PURSUANT TO THE OPERATION AND MAINTENANCE REQUIREMENTS SPECIFIED IN 40 CFR PART 64.7. SUCH A SYSTEM SHALL HAVE AN ACCURACY OF WITHIN ± 1% OF THE TEMPERATURE BEING MONITORED AND SHALL BE INSPECTED, MAINTAINED, AND CALIBRATED ON AN ANNUAL BASIS IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS USING AN APPLICABLE AQMD OR EPA APPROVED METHOD.

FOR THE PURPOSE OF THIS CONDITION, A DEVIATION SHALL BE DEFINED AS WHEN A TEMPERATURE OF LESS THAN 1,400 DEGREES FAHRENHEIT OCCURS DURING NORMAL OPERATION. THE OPERATOR SHALL REVIEW THE RECORDS OF TEMPERATURE ON A DAILY BASIS TO DETERMINE IF A DEVIATION OCCURS OR SHALL INSTALL AN ALARM SYSTEM TO ALERT THE OPERATOR WHEN A DEVIATION OCCURS.

FOR EACH SEMI-ANNUAL REPORTING PERIOD SPECIFIED IN CONDITION NO. 23 IN SECTION K, WHENEVER A DEVIATION OCCURS FROM 1,400 DEGREES FAHRENHEIT, THE OPERATOR SHALL TAKE IMMEDIATE CORRECTIVE ACTION, AND KEEP RECORDS OF THE DURATION AND CAUSE (INCLUDING UNKNOWN CAUSE, IF APPLICABLE) OF THE DEVIATION AND THE CORRECTIVE ACTION TAKEN.

ALL DEVIATIONS SHALL BE REPORTED TO THE AQMD ON A SEMI-ANNUAL BASIS PURSUANT TO THE REQUIREMENTS SPECIFIED IN 40 CFR PART 64.9 AND CONDITION NOS. 22 AND 23 IN SECTION K OF THIS PERMIT.

THE OPERATOR SHALL SUBMIT AN APPLICATION WITH A QUALITY IMPROVEMENT PLAN (QIP) IN ACCORDANCE WITH 40 CFR PART 64.8 TO THE AQMD IF AN ACCUMULATION OF DEVIATIONS EXCEEDS 5 PERCENT DURATION OF THIS EQUIPMENT'S TOTAL OPERATING TIME FOR ANY SEMI-ANNUAL REPORTING PERIOD SPECIFIED IN CONDITION NO. 23 IN SECTION K OF THIS PERMIT. THE REQUIRED QIP SHALL BE SUBMITTED TO THE AQMD WITHIN 90 CALENDAR DAYS AFTER THE DUE DATE FOR THE SEMI-ANNUAL MONITORING REPORT.

THE OPERATOR SHALL INSPECT AND MAINTAIN ALL COMPONENTS OF THIS EQUIPMENT ON AN ANNUAL BASIS IN ACCORDANCE WITH THE MANUFACTURER'S SPECIFICATIONS.

THE OPERATOR SHALL KEEP ADEQUATE RECORDS IN A FORMAT THAT IS ACCEPTABLE TO THE AQMD TO DEMONSTRATE COMPLIANCE WITH ALL APPLICABLE REQUIREMENTS SPECIFIED IN THIS CONDITION AND 40 CFR PART 64.9 FOR A MINIMUM OF FIVE YEARS. [RULE 3004(A) (4)-PERIODIC MONITORING, 40CFR PART 64]

Rules:

Proposed CAM plan for TNMOC control using enclosed flare (s) - flare station -is expected to comply with the Applicable requirements of the,

40CFR Part 64
40 CFR Part 60, subpart WWW
40 CFR Part 63, subpart AAAA
Rule 1150.2 and,
Rule 1303 (b) (2)-Emission offsets.

RECOMMENDATION:

It is recommended that a CAM plan be issued for LFG control equipment for TNMOC control.