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

OWNER/OPERATOR:

TOYON LANDFILL GAS CONVERSION LLC
680 ANDERSEN DRIVE, FOSTER PLAZA 10 5TH FLOOR
PITTSBURGH, PA 15220

FACILITY LOCATION:

5050 MOUNT HOLLYWOOD DRIVE
LOS ANGELES, CA 90027

CO ID: 142417

CONTACT PERSON:

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APPLICATION NO.: 526446

This is a Compliance Assurance Monitoring (CAM) plan for Total Non-Methane Hydrocarbons (TNMHC) emissions generated by a MSW landfill, gathered in a gas collection system (pollutant specific emission unit, or PSEU) and controlled using Reciprocating Internal Combustion Engines (air pollution control equipment).

INTRODUCTION:

This application was submitted on August 30, 2011 for Compliance Assurance Monitoring (CAM) plan under 40 CFR Part 64. The facility is a Title V facility for which initial Title V permit was issued June 2, 2000, and is applying for a renewal.

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 437596 for this facility was submitted 12/07/2004.

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 (PSEUs). The rule applies to each PSEU 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:

The landfill has been closed for many years and the gas generation rate is well below the peak. Currently, the landfill gas collection system gathers approximately 800 cfm of landfill gas containing 50.8% CH4, 37% CO2, 10% N2, 2% O2, and 0.2% TNMHC as methane.
The uncontrolled emission rate of TNMHC is 0.002 x 16 x 800 x 60 x 24 x 365 / 379 / 2000 = 17.75 tons per year .
The controlled emission rate at 65% destruction = 6.2 tons per year.

Potential to Emit for each engine is limited to 28 lbs per day by permit condition, as required by Rule 1303(b)(2) and Rule 1313(g).

MONITORING & PERFORMANCE:

Indicator: When the engines are in operation continuous oxygen monitoring in the exhaust stack and oxygen recorder must be in operation.
The oxygen range shall be 0% to 50%.
Calibration of the oxygen sensors shall be quarterly in accordance with manufacturer's specifications.

Range: 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 7.6% or more than 10.2%, except during periods of engine startup and shutdown.
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 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 $\geq$ 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 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), the permittee shall develop and implement the QIP in accordance with 40 CFR Part 64.8.

Permit condition for the Engines shall be amended with the following;

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

THE EXHAUST OXYGEN SHALL BE MAINTAINED IN THE RANGE OF 7.6% TO 10.2 % WHENEVER THE ENGINE IS IN OPERATION, EXCEPT DURING PERIODS OF STARTUP AND SHUTDOWN.

CONTINUOUS EXHAUST OXYGEN MONITORING AND RECORDING SYSTEM SHALL BE PURSUANT TO THE OPERATION AND MAINTENANCE REQUIREMENTS SPECIFIED IN 40 CFR PART 64.7. SUCH A SYSTEM SHALL INSPECTED, MAINTAINED, AND CALIBRATED ON AN QUARTERLY 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 AN OXYGEN PERCENTAGE OF LESS THAN 7.6 % OR GREATER THAN 10.2% OCCURS DURING NORMAL OPERATION EXCEPT DURING STARTUPS OR SHUTDOWNS. THE OPERATOR SHALL REVIEW THE RECORDS OF OXYGEN PERCENTAGE 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 THE OXYGEN RANGE, 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 TNMHC control is expected to comply with the applicable requirements of 40CFR Part 64 and Rule 1303 (b) (2)-Emission offsets.

RECOMMENDATION:

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