

SOUTH COAST AIR QUALITY MANAGEMENT DISTRICT ENGINEERING AND COMPLIANCE DIVISION PERMIT APPLICATION EVALUATION AND CALCULATIONS	PAGES 3	PAGE 1
	APPL NO 526756	DATE 12/15/2011
	PROCESSED BY AS08	CHECKED BY 

Compliance Assurance Monitoring (CAM) Plan

Applicant's Name Los Angeles County Sanitation Districts (LACSD), Spadra Landfill

Mailing Address P.O. Box 4998
Whittier, CA 90607

Equipment Location 4125 Valley Blvd.
Pomona, CA 91765

APPLICATION 526756, FACILITY ID 42633

Plan Description

This compliance assurance monitoring (CAM) plan for non-methane hydrocarbons (NMHC) emissions generated by a closed municipal solid wastes (MSW) landfill which are collected in a gas collection system (pollutant specific emission unit, PSEU) and controlled using a landfill gas (LFG) steam generation system (boiler) and LFG flare system as air pollution control equipment.

Background

On August 26, 2011, Los Angeles County Sanitation Districts (LACSD), Spadra Landfill submitted this application for a CAM plan for the LFG steam generation system (boiler) Permit G4589, A/N 497200 and LFG flare system Permit F79024, A/N 440828 used to control emissions generated by the closed MSW Spadra Landfill. The Initial Title V permit for this facility was issued May 23, 2006. The facility has applied for a Title V renewal (A/N 516548) which will incorporate this CAM plan into the Title V Facility Permit.

This compliance assurance monitoring plan is to comply with the requirements of 40 CFR 64, Compliance Assurance Monitoring (CAM). This regulation became effective November 21, 1997, however requirements of the plan were delayed while the Title V program was being implemented. Therefore, owners and operators were subject to CAM plan requirements during the Initial Title V renewal. This regulation affects emission units at the source subject to a federally enforceable emission limit or standard that uses a control device to comply, and either pre-control or post-control emissions exceed Title V thresholds. See Sample Permit Condition tagged with 40 CFR 64, which are imposed on the boiler and flare system to comply with the requirements of 40 CFR 64.

CAM Applicability

Requirements are applicable to pollutant-specific emission units at a major source that is required to obtain a State (Part 70) or Federal (Part 71) operating permit. The equipment has pre-control unit emissions of regulated air pollutant that are equal to or greater than 100% of the amount in tons per year, required for a source to be classified as a major source.

The applicable Major Source Threshold (MST) is 10 tons/year of total non methane hydrocarbons (TNMHC). The uncontrolled TNMHC emissions (without gas collection system) based on maximum permitted LFG flow and measured TNMHC concentration from the most recent source test are as follows.

$$\begin{aligned}
 R1 &= 1,595 \text{ ppm} \times 8,500 \text{ scfm} / 379E6 \text{ scf/lbmole} \times 16 \text{ lb/lbmole} \times 60 \text{ min/hr} \\
 &= 34.34 \text{ lbs/hr} \qquad \qquad \qquad = 824.16 \text{ lbs/day} \qquad \qquad \qquad = 300,818.40 \text{ lbs/year} \qquad \qquad \qquad = 150.41 \text{ tons/year}
 \end{aligned}$$

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The controlled TNMHC emissions are based on the maximum (PTE) permitted emission rates per Rule 1303(b)(2) from the boiler and the flare system consisting of 6 flares.

R2 (boiler) = 1.10 lbs/hr	= 26.40 lbs/day	= 9,636 lbs/year	= 4.82 tons/year
R2(flares) = 0.16 lbs/hr-flare x 6 flares			
= 0.96 lbs/hr	= 23.04 lbs/day	= 8,409.6 lbs/year	= 4.20 tons/year
R2(total) = 2.06 lbs/hr	= 49.44 lbs/day	= 18,045.6 lbs/year	= 9.02 tons/year

CAM Requirements

CAM plan shall:

- I. Describe the indicators to be monitored
- II. Describe the measurement approach for the indicators
- III. Describe the ranges or the process to set indicator ranges
- IV. Describe the performance criteria for the monitoring, including
 - A. Specifications for obtaining representative data
 - B. Verification procedures to confirm the monitoring's operational status
 - C. Quality assurance and control procedures
 - D. Monitoring frequency
 - E. Data collection procedure
 - F. Data averaging period
- V. Provide a justification for the use of parameters, ranges, and monitoring approach (see section III of applicants CAM Plan submittal)
- VI. Provide emissions test data (see Indicator No. 1)
- VII. Provide an implementation plan for installing, testing, and operating the monitoring, if necessary

Permits are required to have the following items (see re-issued boiler Permit G4589, A/N 497200 and flare system Permit F79024, A/N 440828):

- I. The approved monitoring approach, including the indicators or the means to measure the indicators to be monitored
- II. A definition of exceedances or excursions
- III. The duty to conduct monitoring
- IV. Minimum data availability and averaging period requirements
- V. Milestones for testing, installation, or final verification

Applicable Regulations, Emission Limits, and Monitoring Requirements

Rules

- | | |
|------------------------------|--------------------------------------|
| 401 | Visible emissions |
| 402 | Nuisance |
| 404 | PM Concentration |
| 407 | Liquid and Gaseous Air Contaminants |
| 409 | Combustion Contaminants |
| 431.1 | Sulfur Content of Gaseous Fuels |
| 40 CFR Part 63, Subpart AAAA | MSW Landfill NMOC Emission Limit |
| 40 CFR Part 64 | Compliance Assurance Monitoring |
| 1150.1 | Landfill NMOC Emission Limit |
| 1303 | New Source Review ROG Emission Limit |

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Table 1 Monitoring Approach for the CAM Plan for Boiler and Flare System

		Boiler under Permit G4589, A/N 497200	Flares under Permit F79024, A/N 440828
		Indicator No. 1	Indicator No. 1
I	Indicator	O2 Concentration	Temperature
II	Measurement Approach	O2 exhaust concentration	Temperature of exhaust in the exhaust stack.
III	Indicator Range and Corresponding Permit Condition (underlined)	Exhaust O2 ≤ 3%, except during startups or shutdowns <u>Cond# 13</u>	Exhaust temperature < 1400° F, except during startups and shutdowns <u>Cond# 5 & 22</u>
IV	Performance Criteria		
	A. Specifications/ Data Representativeness	O2 exhaust concentration is measured with a O2 monitor probe located in the boiler exhaust prior to the pre-heater.	Temperatures measured and recorded with a temperature monitor installed in the flare stack with an accuracy within +/- 1%.
	B. Verification of Operational Status	Per manufacturer specifications.	Per manufacturer specifications.
	C. QA/QC Practices and Criteria	The O2 monitor is calibrated and maintained per manufacturer specifications.	The temperature monitor is calibrated and maintained per manufacturer specifications per Rule 1150.1 Monitoring Plan.
	D. Monitoring Frequency	Continuous.	Continuous, per Rule 1150.1 Monitoring Plan, Section (f)(1)(A)(iii).
	E. Data Collection Procedures	1 hour averages and electronic storage.	DAS automatically collects and stores the temperature data electronically.
	F. Averaging Period	1 hour.	3 hours.

Please note the referenced Rule 1150.1 Plan is the most recent application under A/N 522389 and has not yet been granted.

Quality Improvement Plan (QIP)

The semi-annual monitoring report shall include the total operating time of this equipment and the total accumulated duration of all deviations for each semi-annual reporting period. The operator shall implement a Quality Improvement Plan (QIP) if an accumulation of deviations exceeds 5% duration of this equipment's total operating time for any semi-annual reporting period. The required QIP shall be submitted to the AQMD within 90 calendar days after the due date for the semi-annual monitoring report. Each deviation shall trigger inspection and documentation of corrective actions.

Conclusions and Recommendations

This CAM plan is in compliance with the applicable requirements of 40 CFR part 64. Approval of the CAM plan is recommended under A/N 526756. Permit G4589, A/N 497200 (boiler) and Permit F79024, A/N 440828 LFG flare system are recommended to be re-issued to incorporate the applicable CAM conditions into the existing permits.