



air pollution control district
SANTA BARBARA COUNTY

DRAFT

**PERMIT to OPERATE 14708-R1
and
PART 70 OPERATING PERMIT 14708**

LOMPOC SANITARY LANDFILL

**SOUTH END OF AVALON STREET
LOMPOC, CA**

OWNER AND OPERATOR

City of Lompoc

**Santa Barbara County
Air Pollution Control District**

September 2026

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TABLE OF CONTENTS

<u>SECTION</u>	<u>PAGE</u>
1.0 INTRODUCTION	1
1.1 PURPOSE	1
1.2 STATIONARY SOURCE/FACILITY OVERVIEW	2
1.3 EMISSION SOURCES.....	3
1.4 EMISSION CONTROL OVERVIEW.....	3
1.5 OFFSETS/EMISSION REDUCTION CREDIT OVERVIEW.....	3
1.6 PART 70 OPERATING PERMIT OVERVIEW	3
2.0 SOURCE AND PROCESS DESCRIPTION.....	5
2.1 SOURCE AND PROCESS DESCRIPTION	5
2.2 SUPPORT SYSTEMS.....	6
2.3 DETAILED PROCESS EQUIPMENT LISTING	7
3.0 REGULATORY REVIEW	7
3.1 RULE EXEMPTIONS	7
3.2 COMPLIANCE WITH APPLICABLE FEDERAL RULES AND REGULATIONS.....	8
3.3 COMPLIANCE WITH APPLICABLE STATE RULES AND REGULATIONS	10
3.4 COMPLIANCE WITH APPLICABLE LOCAL RULES AND REGULATIONS	11
3.5 COMPLIANCE HISTORY	15
4.0 ENGINEERING ANALYSIS.....	22
4.1 GENERAL	22
4.2 LANDFILL.....	23
4.3 LANDFILL GAS COLLECTION SYSTEM.....	24
4.4 ENCLOSED FLARE	24
4.5 WASTE GRINDER.....	25
4.6 CONDENSATE MANAGEMENT SYSTEM.....	25
4.7 OTHER EMISSION SOURCES.....	26
4.8 BACT/NSPS/NESHAP/MACT	26
4.9 CEMS/PROCESS MONITORING/METER CALIBRATION	26
4.10 SOURCE TESTING/SAMPLING	27
4.11 PART 70 ENGINEERING REVIEW: HAZARDOUS AIR POLLUTANT EMISSIONS	28
5.0 EMISSIONS.....	32
5.1 GENERAL	32
5.2 PERMITTED EMISSION LIMITS - EMISSION UNITS	32
5.3 PERMITTED EMISSION LIMITS - FACILITY TOTALS	32
5.4 PART 70: FEDERAL POTENTIAL TO EMIT FOR THE FACILITY	32
5.5 PART 70: HAZARDOUS AIR POLLUTANT EMISSIONS FOR THE FACILITY	32
5.6 EXEMPT EMISSION SOURCES/PART 70 INSIGNIFICANT EMISSIONS	33

6.0	AIR QUALITY IMPACT ANALYSES.....	43
6.1	MODELING	43
6.2	INCREMENTS	43
6.3	MONITORING.....	43
6.4	HEALTH RISK ASSESSMENT	43
7.0	CAP CONSISTENCY, OFFSET REQUIREMENTS AND ERCS.....	44
7.1	GENERAL	44
7.2	CLEAN AIR PLAN	44
7.3	OFFSET REQUIREMENTS.....	44
7.4	EMISSION REDUCTION CREDITS	44
8.0	LEAD AGENCY PERMIT CONSISTENCY	45
9.0	PERMIT CONDITIONS	46
9.A	STANDARD ADMINISTRATIVE CONDITIONS.....	46
9.B	GENERIC CONDITIONS.....	51
9.C	REQUIREMENTS AND EQUIPMENT SPECIFIC CONDITIONS.....	53
9.D	DISTRICT AND STATE CONDITIONS	89
10.0	ATTACHMENTS.....	92
10.1	EQUIPMENT LIST	93
10.2	LIST OF EXEMPT/INSIGNIFICANT EMISSION UNITS	97
10.3	IDS DATABASE EMISSION TABLES	98
10.4	FACILITY MAP	99

LIST OF FIGURES and TABLES

<u>TABLE/FIGURE</u>	<u>PAGE</u>
TABLE 3.1	GENERIC FEDERALLY ENFORCEABLE DISTRICT RULES18
TABLE 3.2	UNIT-SPECIFIC FEDERALLY ENFORCEABLE DISTRICT RULES20
TABLE 3.3	UNIT-SPECIFIC FEDERALLY ENFORCEABLE RULES.....21
TABLE 3.4	NON-FEDERALLY ENFORCEABLE DISTRICT RULES.....20
TABLE 3.5	FEDERALLY ENFORCEABLE STATE RULES.....21
TABLE 4.1	BEST AVAILABLE CONTROL TECHNOLOGY REQUIREMENTS29
TABLE 4.2	PROCESS MONITORING REQUIREMENTS29
TABLE 4.3	ENCLOSED FLARE SOURCE TEST REQUIREMENTS.....30
TABLE 4.4	WASTE GRINDER ENGINE SOURCE TEST REQUIREMENTS.....31
TABLE 5.1-1	LANDFILL FUGITIVE EMISSIONS35
TABLE 5.1-2	CAPTURED LANDFILL GAS.....36
TABLE 5.2-1	COMBUSTION EQUIPMENT INFORMATION37
TABLE 5.2-2	COMBUSTION EQUIPMENT EMISSION FACTORS38
TABLE 5.2-3	COMBUSTION EQUIPMENT EMISSION LIMITS39
TABLE 5.3	FACILITY POTENTIAL TO EMIT39
TABLE 5.4	FEDERAL POTENTIAL TO EMIT40
TABLE 5.5	STATIONARY SOURCE POTENTIAL TO EMIT40
TABLE 5.6-1	HAZARDOUS AIR POLLUTANT EMISSION FACTORS.....41
TABLE 5.6-2	ANNUAL HAZARDOUS AIR POLLUTANT EMISSIONS.....42

ABBREVIATIONS/ACRONYMS

AP-42	USEPA's Compilation of Emission Factors
AQIA	Air Quality Impact Analysis
ASTM	American Society for Testing Materials
ATC	Authority to Construct
ATCM	Airborne Toxic Control Measure
BACT	Best Available Control Technology
bhp	brake horsepower
Btu	British thermal unit
C	degree Celsius
CAAA	Clean Air Act Amendments
CAM	Compliance Assurance Monitoring
CAP	Clean Air Plan
CARB	California Air Resources Board
CCR	California Code of Regulations
CEMS	continuous emissions monitoring
CEQA	California Environmental Quality Act
CFR	Code of Federal Regulations
CO ₂	carbon dioxide
CVR	Compliance Verification Report
DAS	Data Acquisition System
District	Santa Barbara County Air Pollution Control District
EIR	Environmental Impact Report
ERC	Emission Reduction Credit
F	degree Fahrenheit
g	gram
gr	grain
H ₂ S	hydrogen sulfide
HAP	hazardous air pollutant (as defined by CAAA, Section 112(b))
HDPE	high density polyethylene
HHV	higher heating value
hr	hour
HRA	Health Risk Assessment
IC	internal combustion
l	liter
lb	pound
lb/day	pounds per day
lb/hr	pounds per hour
LFG	landfill gas
M	mega (million)
m ³	cubic meter
MACT	Maximum Achievable Control Technology
MM	million
MSDS	material safety data sheet
MSW	municipal solid waste
NESHAP	National Emission Standards for Hazardous Air Pollutants
NFPA	National Fire Protection Agency
NMOC	non-methane organic compounds
NO _x	oxides of nitrogen
NO ₂	nitrogen dioxide
NOV	Notice of Violation
NSPS	New Source Performance Standards
NSR	New Source Review
O ₂	oxygen

PM	particulate matter
PM ₁₀	particulate matter less than 10 microns
PM _{2.5}	particulate matter less than 2.5 microns
ppm(vd or w)	parts per million (volume dry or weight)
PSD	Prevention of Significant Deterioration
psia	pound per square inch absolute
PT-70	Part 70
PTE	potential to emit
PTO	Permit to Operate
PVC	polyvinyl chloride
Reeval	Reevaluation
ROC	reactive organic compounds, same as “VOC” as used in this permit
scf	standard cubic foot
scfm	standard cubic feet per minute
SIP	State Implementation Plan
SMMR	Surface Monitoring, Maintenance, and Recordkeeping
SO _x	oxides of sulfur
SSID	stationary source identification
THC	total hydrocarbons
tpq, TPQ	tons per quarter
tpy, TPY	tons per year
USEPA	United States Environmental Protection Agency
VEE	visible emissions evaluation
VOC	volatile organic compound, same as “ROC” as used in this permit

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1.0 Introduction

1.1 Purpose

General: The Santa Barbara County Air Pollution Control District (District) is responsible for implementing all applicable federal, state and local air pollution requirements which affect any stationary source of air pollution in Santa Barbara County. The federal requirements include regulations listed in the Code of Federal Regulations (CFR): 40 CFR Parts 50, 51, 52, 60, 61, 62, 63, 68, 70 and 82. The State regulations may be found in the California Health & Safety Code, Division 26, Section 39000 et seq as well as California Code of Regulations (CCR), Title 17, Subchapter 10, Article 4, Subarticle 6, §95460 to §95476. The applicable local regulations can be found in the District's Rules and Regulations.

Santa Barbara County is designated as a non-attainment area for the state PM10 ambient air quality standard. On July 1, 2020, the County achieved attainment status for the ozone state ambient air quality standards, however in February 2021, the California Air Resources Board took action at a public hearing to change Santa Barbara County's designation from attainment to nonattainment for the State ozone standard. This change was based on data measured at multiple locations in the County for the 3-year period from 2017 to 2019. The California Office of Administrative Law (OAL) finalized the designation change on September 27, 2021.

Part 70 Permitting: This is the first renewal of the Part 70 permit for Lompoc Sanitary Landfill and it satisfies the permit issuance requirements of the District's Part 70 operating permit program. The District's permit reevaluation (Reeval) has been combined with this Part 70 Permit renewal. A Part 70 permit is required because the landfill is a designated facility subject to a standard adopted under Clean Air Act Section 111(d), implemented through the EPA-approved California State Plan and 40 CFR Part 62 Subpart OOO, and under the District's Part 70 Operating Permit program (Title V).

Lompoc Sanitary Landfill (SSID: 08772) is a Class III municipal solid waste (MSW) landfill (in accordance with CCR Title 27 §20260) owned and operated by the City of Lompoc. Conditions listed in this permit are based on federal, state, and local rules and requirements. Sections 9.A, 9.B and 9.C of this permit are enforceable by the District, United States Environmental Protection Agency (USEPA), and public since these sections are federally enforceable under Part 70. Where any reference contained in Sections 9.A, 9.B or 9.C refers to any other part of this permit that part of the permit is federally enforceable. Conditions listed in Section 9.D are enforceable by the state and District.

Pursuant to the stated aims of Title V of the Clean Air Act Amendments (CAAA) of 1990 (i.e. the Part 70 operating permit program), this permit has been designed to meet two objectives: first, compliance with all conditions in this permit would ensure compliance with all federally enforceable requirements for the facility; second, the permit would be a comprehensive document to be used as a reference by Lompoc Sanitary Landfill, the regulatory agencies and the public to assess compliance.

Part 70 (PT-70) 14708 and Part 70 Administrative Amendment (PT-70 ADM) 16562 are superseded by this permit.

1.2 Stationary Source/Facility Overview

1.2.1 Stationary Source/Facility Overview: Lompoc Sanitary Landfill is located at the south end of Avalon Street in Lompoc, California. The landfill began receiving refuse in 1961 and accepts MSW from the City of Lompoc. For District regulatory purposes, the facility location is in the Northern Zone of Santa Barbara County^a.

The processes involved at the stationary source are as follows:

- Landfill: The generation of LFG resulting from anaerobic biological decomposition of organic matter deposited in a landfill.
- LFG Collection System: A system to collect LFG generated by refuse deposited in Lompoc Sanitary Landfill and piping to transport the collected gas to the enclosed flare.
- Condensate Management System: After being collected, LFG is scrubbed using a stainless-steel mesh to remove condensate. The condensate is routed to a 50-gallon knockout tank. The condensate is then subsequently incinerated in the enclosed flare.
- Enclosed Flare: Collected LFG is destroyed in the enclosed flare through continuous combustion.
- Waste Grinder: A diesel-fired 630 brake horsepower (bhp) engine is used to power a portable waste grinder. The grinder is used to process wood and green waste.

1.2.2 Facility New Source Review (NSR) Overview: The equipment items subject to NSR at this facility consist of the combustion units and associated support equipment. The following is a summary of significant past and present Authority to Construct (ATC) and Permit to Operate (PTO) permits and applications for this facility:

PERMIT	FINAL ISSUED	PERMIT DESCRIPTION
Exempt 09707	3/15/1997	Exempt landfill.
ATC 13778	5/11/2012	Installation of a waste grinder.
PT-70/PTO 13563	11/20/2012	Permitting of the previously exempt landfill due to size.
PT-70 R 14511	11/17/2014	Revising Condition 9.C.1(c)(ii) from 2014 to 2015.
PTO 13778	12/16/2014	Operation of a waste grinder.
ATC 14708	12/19/2016	Installation of landfill gas collection system and enclosed flare.
PT-70 14708	08/20/2018	Installation of landfill gas collection and control system to comply with CARB Landfill Methane Capture Rule.
PT-70 ADM 15321	02/14/2019	Change of Responsible Official from Larry Bean to Brad Wilkie.
PT-70 ADM 16444	08/26/2025	Change of Responsible Official from Brad Wilkie to Keith Quinlan.
PT-70 ADM 16562	03/23/2026	Change of Responsible Official from Keith Quinlan to Michael Luther.

^a District Rule 102, Definition: "Northern Zone"

1.3 Emission Sources

The emissions subject to this permit come from the landfill surface fugitives, waste grinder engine, and enclosed flare. Section 4 of this permit provides the District's engineering analysis of these emission sources. Section 5 of this permit describes the allowable emissions from each permitted emissions unit and lists the potential emissions from non-permitted emission units.

1.4 Emission Control Overview

Air pollution emission controls are utilized at Lompoc Sanitary Landfill. The emission controls employed at this facility, which are subject to this permit, include:

- Use of LFG collection system to route hydrocarbon laden gases to an enclosed flare for destruction.
- Use of an enclosed flare with low oxides of nitrogen (NO_x) burner design, adequate combustion zone residence time and use of combustion zone temperature control system.
- Use of a Tier 4 transitional diesel engine that has been certified to meet EPA standards in the waste grinder.

1.5 Offsets/Emission Reduction Credit Overview

Offsets: Per the District's revised NSR rules adopted on August 25, 2016, the Lompoc Sanitary Landfill stationary source is not required to offset emissions at this time because this permitting action is not subject to NSR and the stationary source is not above the District's offset thresholds.

ERCs: Lompoc Sanitary Landfill does not generate emission reduction credits (ERCs).

1.6 Part 70 Operating Permit Overview

1.6.1 Federally-Enforceable Requirements: All federally enforceable requirements are listed in 40 CFR Part 70.2 (*Definitions*) under "applicable requirements" and other provisions. These include all State Implementation Plan (SIP)-approved District Rules, all conditions in the District-issued ATC permits and all conditions applicable to major sources under federally promulgated rules and regulations. All these requirements are also enforceable by the public under CAAA. See Tables 3.1, 3.2, 3.3 and 3.5 for a list of federally enforceable requirements.

1.6.2 Insignificant Emissions Units: Insignificant emission units are defined under District Rule 1301 as any regulated air pollutant emitted from the unit, excluding hazardous air pollutants (HAPs), that are less than 2 tons per year (TPY) based on the unit's potential to emit (PTE) and any HAP regulated under Section 112(g) of the Clean Air Act that does not exceed 0.5 TPY based on the unit's PTE. Insignificant activities must be listed in the Part 70 application with supporting calculations. Applicable requirements may apply to insignificant units. See Attachment 10.2 for a list of the insignificant emissions units.

1.6.3 Federal Potential to Emit: The federal PTE of a stationary source does not include fugitive emissions of any pollutant, unless the source is: (1) subject to a federal NSPS/National Emission Standards for Hazardous Air Pollutants (NESHAP) requirement which was in effect as of August 7, 1980, or (2) included in the categorical source list specified in 40 CFR 70.2. The federal PTE does include all emissions from any insignificant emissions units. Fugitive ROC emissions are not included in the federal PTE. See Section 5.4 for the federal PTE for this source.

- 1.6.4 Permit Shield: The operator of a major source may be granted a shield: (a) specifically stipulating any federally enforceable conditions that are no longer applicable to the source and (b) stating the reasons for such non-applicability. The permit shield must be based on a request from the source and its detailed review by the District. Permit shields cannot be granted indiscriminately with respect to all federal requirements. The City of Lompoc has not made a request for a permit shield.
- 1.6.5 Alternate Operating Scenarios: A major source may be permitted to operate under different operating scenarios if appropriate descriptions of such scenarios are included in its Part 70 permit application and if such operations are allowed under federally enforceable rules. The City of Lompoc has made no request for permitted alternative operating scenarios.
- 1.6.6 Compliance Certification: Part 70 permit holders shall certify compliance with all applicable federally enforceable requirements including permit conditions. Such certification must accompany each Part 70 permit application and be re-submitted annually on or before March 1st or on a more frequent schedule, as specified in the permit. Each certification is signed by a responsible official of the owner/operator company whose name and address is listed prominently in the Part 70 permit. See Section 1.6.10 below.
- 1.6.7 Permit Reopening: Part 70 permits are re-opened and revised if the source becomes subject to a new rule or new permit conditions are necessary to ensure compliance with existing rules. The permits are also re-opened if they contain a material mistake or the emission limitations or other conditions are based on inaccurate permit application data. See Part 70 Rule, 40 CFR 70.7.
- 1.6.8 MACT/Hazardous Air Pollutants: Part 70 permits also regulate emission of HAPs from sources through the imposition of Maximum Achievable Control Technology (MACT), where applicable. See the Subpart AAAA applicability discussion in Section 3 of the permit.
- 1.6.9 Compliance Assurance Monitoring: The Compliance Assurance Monitoring (CAM) rule became effective on April 22, 1998. This rule affects emission units at the source subject to a federally enforceable emission limit or standard that uses a control device to comply with the emission standard, and either pre-control or post-control emissions exceed the Part 70 source emission thresholds. Sources subject to CAM Rule must submit a *CAM Rule Compliance Plan* along with their Part 70 operating permit renewal applications. The District has determined that no emissions unit at this facility is subject to the CAM Rule. See Section 3.2.6.
- 1.6.10 Responsible Official: The designated responsible official and their mailing address is:

Michael Luther, Utilities Director
City of Lompoc
100 Civic Center Plaza
Lompoc, CA 93436

2.0 Source and Process Description

2.1 Source and Process Description

2.1.1 Facility Description: The facility began operations in 1961. Lompoc Sanitary Landfill is a canyon-type fill located at the south end of Avalon Street and encompasses 115.4 acres with a waste disposal footprint of 39 acres. As of December 31, 2025, the mass of waste-in-place at the landfill is approximately 2,597,412 tons. The maximum elevation at the site is 460 feet above the landfill while the maximum depth is 90 feet below grade surface. The estimated closure date is 2045.

In 1997, the City of Lompoc submitted an initial design capacity report to the District. Based on this filing, the design capacity of the landfill was 2.3 million tons (2.1 million Megagrams [Mg]). At that time, the facility was determined to be exempt from Subpart WWW requirements based on the reported design capacity. In 2012, the City of Lompoc submitted a revised design capacity report which increased the design capacity of the landfill to 6.1 million cubic meters (m³). Based on the revised landfill capacity, Lompoc Sanitary Landfill was required to comply with certain requirements of Subpart WWW. However, since the calculated landfill non-methane organic compounds (NMOC) emissions were below the Subpart WWW threshold of 55.1 TPY (50 Mg/yr), a LFG collection and control system was not required at that time. On September 27, 2021, MSW landfills became subject to California's Methane Emissions from MSW Landfills state regulation and portions of 40 CFR Part 62 Subpart OOO per the EPA's partial approval of California's State Plan. See Section 3.2 for more details.

The City of Lompoc submitted a *Landfill Gas Collection and Control System Plan* on September 7, 2012 to comply with the California Air Resources Board (CARB) California Regulation for Methane Emissions from Municipal Solid Waste Landfills. This regulation is applicable to all municipal solid waste landfills that received MSW after January 1, 1977 unless the landfill was currently closed or inactive with less than 450,00 tons of waste-in-place. When the plan was submitted, Lompoc Sanitary Landfill had more than 450,000 tons of waste-in-place and was receiving waste. Therefore, this regulation was applicable. The *Landfill Gas Collection and Control System Plan* was approved by the District on January 9, 2015. As part of the regulation, Lompoc Sanitary Landfill was required to install a landfill gas collection and control system by July 9, 2016.

The City of Lompoc did not install or operate the LFG collection and control systems by the July 9, 2016 deadline set by the CARB regulation. As a result, the permittee entered a compliance agreement with the District on December 21, 2016, which laid out steps that needed to be completed to ensure compliance with the CARB regulation. When the compliance agreement expired on November 8, 2017, the City of Lompoc completed all of the required steps.

The application for a LFG collection and control system was submitted by the City of Lompoc on August 7, 2015. The final permit for this equipment, ATC 14708, was issued final by the District on December 19, 2016. Operations for this equipment began on July 14, 2017.

- 2.1.2 Facility Operations: Lompoc Sanitary Landfill currently receives an average of 105.65 tons of MSW per day (based on 2025 Compliance Verification Reports [CVRs]). The landfill operates under a California Integrated Waste Management Board Solid Waste Facility Permit, which allows the landfill to handle up to 400 tons of waste per day and 6,000 vehicles per month. The facility includes designated areas for various types of recyclable materials including electronic waste. Landfill operations consist of a 'fill-and-cover method' using native soil or alternative daily cover including ground wood and green waste, water treatment plant filter material mixed with soil, ground construction and demolition materials and tarps. Native soil and all alternative daily cover, except tarps, are compacted to a minimum depth of six inches and an average compacted thickness of less than or equal to twelve inches. Cover materials are applied at the end of each operating day to control vectors, fires, odors, blowing litter and scavenging. The processes involved at the facility are as follows:
- 2.1.2.1 Landfill: LFG is generated as a result from anaerobic biological decomposition of organic matter deposited in a landfill. LFG consists primarily of methane and carbon dioxide (CO₂), with smaller amounts of non-methane organic compounds (NMOC). Some NMOCs are ROCs.
- 2.1.2.2 LFG Collection System: A system to collect the LFG generated by the deposited organic matter. This system is comprised of vertical and horizontal collection wells, piping system, gas collection blower, and gas metering system. A condensate knockout is used to remove water vapor from the LFG going to the blower and a collection tank is used to hold the condensate. Gas collected by this system is routed to the enclosed flare.
- 2.1.2.3 Enclosed Flare: The 12.010 MMBtu/hr enclosed flare is 6 feet in diameter and 25 feet tall. A small quantity of landfill condensate may be injected in the flare for disposal via evaporation. The enclosed flare is equipped with an automatic louver, automatic shutdown device, flame arrestor to prevent flashback, propane pilot, and thermocouples that monitor combustion temperature. The combustion temperature set point is maintained at the temperature observed during the most recent compliant source test. Propane for the pilot is stored in two 5-gallon tanks.
- 2.1.2.4 Green Waste Processing Activities: Wood and green waste received from self-haul customers is processed onsite and used for alternative daily cover. Source separated wood or green waste material is diverted to the recycling area where the material is off-loaded by the customer. A portable grinder powered by a 630 bhp diesel engine is used to grind the wood and green waste. The ground green and wood waste are used as alternative daily cover.
- 2.1.2.5 Recycling Activities: The facility has designated areas for recycling the following materials: metal and appliances, cardboard, tires, electronic waste, used oil and oil filters, treated wood waste, concrete, and topsoil.

2.2 Support Systems

- 2.2.1 Condensate Management System: Condensate is the liquid that condenses in the collection system piping via the cooling of the moist, warm LFG once it leaves the landfill as it is being transported to the enclosed flare. The collected condensate is stored in a 50-gallon storage tank. Condensate is disposed via injection into the enclosed flare.
- 2.2.2 Dust Control Measures: The site access road is paved. The site haul roads and dumping aprons are watered as required during dry weather conditions. Ground road base (asphalt and concrete) and leftover street slurry seal materials are used to control dust.

2.3 Detailed Process Equipment Listing

A detailed listing of permitted and exempt equipment authorized under this permit is included in Attachments 10.1 and 10.2 respectively.

3.0 Regulatory Review

3.1 Rule Exemptions

- District Rule 201 (Permits Required): The City of Lompoc qualifies for exemptions under this rule since the equipment does not have a PTE. The following exemption applies to Lompoc Sanitary Landfill:
 - Section A for one water storage tank (10,000 gallons)
- District Rule 202 (Exemptions to Rule 201): The City of Lompoc qualifies for a number of exemptions under this rule. An exemption from permit, however, does not grant relief from any applicable prohibitory rule unless specifically exempted by that prohibitory rule. The following exemptions apply to Lompoc Sanitary Landfill:
 - Section D.8 for routine surface coating maintenance activities.
 - Section F.1.c for internal combustion (IC) engines used to propel on and off-road vehicles at Lompoc Sanitary Landfill.
 - Section V.3 for storage of lubricating oils.
 - Section V.8 for propane storage tanks.
- District Rule 326 (Storage of Reactive Organic Compound Liquids): Per Section B.1.a or B.1.b, the following emission units are exempt from all provisions of this rule:
 - Used oil tanks (two 400 gallon tanks)
 - Condensate knockout (50 gallon tank)
- District Rule 333 (Control of Emissions from Reciprocating Internal Combustion Engines): Section B.1.b exempts engines from all the requirements of this rule which are Rule exempt from permit per Rule 202. This exemption includes IC engines propelling vehicles that power operational equipment at Lompoc Sanitary Landfill, such as compactors, loaders, etc.
- District Rule 341 (Municipal Solid Waste Landfills): Section B exempts landfills that are subject to the requirements of Subpart WWW. Since September 27, 2021, Landfills that previously followed Subpart WWW are now subject to a combination of California's Methane Emissions from MSW Landfills state regulation and portions of 40 CFR Part 62 Subpart OOO due to the EPA's partial approval of California's State Plan. The City of Lompoc Landfill complies with the requirements of Rule 341 because they are subject to the more stringent requirements in California's Methane Emissions from MSW Landfills state regulation and portions of 40 CFR Part 62 Subpart OOO per the EPA's partial approval of California's State Plan.

- District Rule 346 (Loading of Organic Liquids): Per Section B.4, the transfer of liquefied natural gas, propane, butane or liquefied petroleum gases is not subject to this rule. Therefore, the transfer of propane to the propane storage tanks is exempt from this rule.

3.2 Compliance with Applicable Federal Rules and Regulations

- 3.2.1 40 CFR Parts 51/52 (New Source Review [Nonattainment Area Review and Prevention of Significant Deterioration]): The 12.010 MMBtu/hr enclosed flare was permitted under ATC 14708 in December 2016. The waste grinder engine was permitted under ATC 13778 in May 2012. Both the enclosed flare and engine were permitted under District Regulation VIII (NSR). Compliance with this permit's requirements and Regulation VIII ensures the enclosed flare and waste grinder engine will comply with the federal NSR requirements.
- 3.2.2 40 CFR Part 60 (NSPS): Lompoc Sanitary Landfill equipment and operations are subject to Subpart A. Lompoc Sanitary Landfill is not subject to Subpart Cf. Rather, the District is subject to this Subpart. The Subpart Cf discussion below provides the reasoning of certain regulatory requirements:

Subpart A General Provisions

Subpart Cf Emission Guidelines and Compliance Times for Municipal Solid Waste Landfills

On August 29, 2016, this Subpart established Emission Guidelines and compliance times for the control of designated pollutants from certain designated MSW landfills in accordance with Section 111(d) of the Clean Air Act and 40 CFR Part 60 Subpart B. States were required to submit a State Plan no later than August 29, 2019 to demonstrate how the requirements of this Subpart (and subsequently 40 CFR Part 62 Subpart OOO) would be implemented. If States did not submit a plan or failed to receive approval of a Plan, 40 CFR Part 62 Subpart OOO would go into effect in their jurisdiction.

California submitted a State Plan in the form of Title 17 CCR, Subchapter 10, Article 4, Subarticle 6, §95460 to §95476: California Methane Emissions from MSW Landfills to demonstrate implementation of this Subpart's requirements. California's State Plan received partial approval from the EPA. Therefore, applicable MSW landfills in California are required to comply with the California Methane Emissions from MSW Landfills regulation as well as 40 CFR Part 62 Subpart OOO §62.16716(c), §62.16720(a)(4), §62.16722(a)(2), §62.16722(a)(3), §62.16724(k), §62.16726(e)(2) and §62.16726(e)(5).

Subpart WWW Standards of Performance for Municipal Solid Waste Landfills That Commenced Construction, Reconstruction, or Modification on or After May 30, 1991, but Before July 18, 2014

This landfill was previously subject to the requirements of Subpart WWW. With the partial approval of the California's State Plan from the EPA per Subpart Cf, California landfills are now required to comply with the California Methane Emissions from MSW Landfills regulation and 40 CFR Part 62 Subpart OOO §62.16716(c), §62.16720(a)(4), §62.16722(a)(2), §62.16722(a)(3), §62.16724(k), §62.16726(e)(2), and §62.16726(e)(5).

- 3.2.3 40 CFR Part 61 (NESHAP): This facility is not subject to the provisions of Part 61.

3.2.4 40 CFR Part 62 (Approval and Promulgation of State Plans for Designated Facilities and Pollutants):

Subpart OOO Federal Plan Requirements for Municipal Solid Waste Landfills That Commenced Construction On or Before July 17, 2014 and Have Not Been Modified or Reconstructed Since July 17, 2014

As discussed above, the requirements of Subpart OOO came into effect on September 27, 2021 if the requirements of 40 CFR Part 60 Subpart Cf were not fully addressed by a State Plan. California's State Plan received partial approval from the EPA. 40 CFR §62.1115(b)(2) incorporates exactly seven Subpart OOO provisions for California, since the state plan "does not provide for wellhead operational standards, wellhead monitoring, corrective action and recordkeeping related to temperature." Therefore, sections §62.16716(c), §62.16720(a)(4), §62.16722(a)(2), §62.16722(a)(3), §62.16724(k), §62.16726(e)(2) and §62.16726(e)(5) of this Subpart are applicable to this landfill.

3.2.5 40 CFR Part 63 (MACT)

Subpart AAAA (NESHAP for Municipal Solid Waste Landfills):

On March 26, 2020, the USEPA promulgated an updated Subpart AAAA, a NESHAP for HAPs from MSW landfills, to address changes to the federal landfill regulations. Beginning September 27, 2021, landfills meeting the following criteria became subject to this regulation:

- Does not have a bioreactor, if so
 - Has accepted waste since November 8, 1987, or has additional capacity for waste deposition, and meets one of the following:
 - A major source
 - Collocated with a major source
 - An area source landfill that has a design capacity equal to or greater than 2.5 million Mg and 2.5 million cubic meters and has estimated uncontrolled emissions equal to or greater than 50 megagrams per year of NMOC
- Has a bioreactor, if so
 - Has accepted waste since November 8, 1987, or has additional capacity for waste deposition, and meets one of the following:
 - A major source
 - Collocated with a major source
 - An area source landfill that has a design capacity equal to or greater than 2.5 million Mg and 2.5 million m³ and has not permanently closed as of January 16, 2003.

Lompoc Sanitary Landfill does not have a bioreactor, has accepted waste since November 8, 1987, and is an area source. The facility has a permitted design capacity of 6.1 million m³. Using the CARB's official *LMR Implementation Guidance Document and the User Guide for Landfill Methane Regulation Annual Reporting* default waste density of 1,300 lbs/yd³ (approximately 0.77 Mg/m³), this volumetric capacity converts to approximately 4.7 million Mg. Therefore, the landfill exceeds both the 2.5 million m³ and 2.5 million Mg design capacity thresholds. However, this landfill does not have estimated uncontrolled emissions equal to or greater than 50 Mg per

year of NMOC using the Tier 2 site-specific NMOC concentration (actual calculated value for AAAA compliance as of December 2025 is 6.415 Mg per year).

Because it exceeds the design capacity threshold but falls below the emission threshold, Lompoc Sanitary Landfill is not currently subject to the active gas collection, control, and operational monitoring requirements of Subpart AAAA. This determination relies on the Tier 2 site-specific NMOC concentration. Using the Tier 1 default concentration of 4,000 ppmv as hexane, the calculated rate would be approximately 130 Mg/yr, above the 50 Mg/yr trigger. Landfills that demonstrate they are below the 50 Mg/yr trigger via the Tier 2 analysis under 40 CFR §63.1959(a)(3), are subject to the following requirements in §63.1959(a)(3)(iii): the NMOC mass emission rate must be recalculated annually, an NMOC emission rate report must be submitted in accordance with §63.1981(c), and the site-specific NMOC concentration must be retested every five years.

- 3.2.6 40 CFR Part 64 (CAM): This rule became effective on April 22, 1998. This rule affects emission units at sources subject to a federally enforceable emission limit or standard that uses a control device to comply with the emission standard and pre-control emissions exceed the Part 70 source emission thresholds. Compliance with this rule was evaluated and it was determined that this Subpart is not applicable to the enclosed flare at Lompoc Sanitary Landfill. Though the flare qualifies as a control device, Part 64.2(b)(1)(i) exempts sources from CAM requirements when the sources are subject to emission limitations or standards proposed by the Administrator after November 15, 1990 pursuant to section 111 or section 112 of the Act, which includes the Subpart Cf emission guidelines implemented through the State Plan and 40 CFR Part 62 Subpart OOO.
- 3.2.7 40 CFR Part 70 (Operating Permits): This rule became effective on April 22, 1998. This rule affects emission units at sources subject to a federally enforceable emission limit or standard that uses a control device to comply with the emission standard and post-control emissions exceed the Part 70 source emission thresholds. Table 3.1 lists the federally enforceable District promulgated rules that are generic and apply to Lompoc Sanitary Landfill. Table 3.2 lists the federally enforceable promulgated rules that are unit-specific. These tables are based on data available from the District's administrative files.

In its permit renewal application, the City of Lompoc certified compliance with all existing District rules and permit conditions. Verification of ongoing compliance is required of the City of Lompoc semi-annually. Issuance of this permit and compliance with all its terms and conditions as well as with the compliance schedule will ensure that the City of Lompoc complies with the provisions of all applicable Subparts.

3.3 *Compliance with Applicable State Rules and Regulations*

- 3.3.1 Division 26, Air Resources (California Health and Safety Code): The administrative provisions of the Health and Safety Code apply to this facility.
- 3.3.2 California Administrative Code Title 17: These sections specify the standards by which abrasive blasting activities are governed throughout the State. All abrasive blasting activities at Lompoc Sanitary Landfill are required to conform to these standards. Compliance is typically assessed through onsite inspections. However, California Administrative Code Title 17 does not preempt enforcement of any SIP-approved rule that may be applicable to abrasive blasting activities.

- 3.3.3 Title 17, California Code of Regulations, Subchapter 10, Article 4, Subarticle 6, §95460 to §95476: The California Methane Emissions from Municipal Solid Waste Landfills regulation applies to active, inactive and closed MSW landfills which have 450,000 tons or greater of waste-in-place and received waste after January 1, 1977. The regulation contains performance standards for the LFG collection and control systems and specifies monitoring requirements to ensure that the systems are being maintained and operated in a manner to minimize methane emissions. Compliance is determined through monitoring requirements for wellheads, methane destruction efficiency requirement for most control devices, surface methane emission standards, and reporting requirements. The City of Lompoc's requirements for this new regulation are tabulated in Table 3.5 and the conditions found in Section 9.C and 9.D. The requirements of this regulation are federally enforceable due the partial approval of the California's State Plan from the EPA per Subpart Cf.
- 3.3.4 Title 17, California Code of Regulations, §93115: The Airborne Toxic Control Measure (ATCM) for Stationary Compression Ignition Engines applies to the diesel-fired waste grinder engine. The engine is considered a new stationary prime diesel-fueled CI engine per the definitions found in the ATCM. The engine satisfies the ATCM emission standards since it meets EPA Tier 4 transitional emission standards. This regulation requires the waste grinder engine to be fired exclusively on CARB ultra-low sulfur diesel. Compliance is assessed through records of hours of operation, fuel use and diesel fuel purchase records.

3.4 Compliance with Applicable Local Rules and Regulations

- 3.4.1 Applicability Tables: Tables 3.1, 3.2, and 3.3 list the federally enforceable District promulgated rules that apply to the facility. Table 3.4 list the non-federally enforceable District Rules. Table 3.5 lists the federally enforceable state regulations for MSW landfills.
- 3.4.2 Rules Requiring Further Discussion: This section provides a more detailed discussion regarding the applicability and compliance of certain rules.

The following is a rule-by-rule evaluation of compliance for Lompoc Sanitary Landfill:

Rule 301 - Circumvention: This rule prohibits the concealment of any activity that would otherwise constitute a violation of Division 26 (Air Resources) of the California Health and Safety Code and the District Rules and Regulations.

Rule 302 - Visible Emissions: This rule prohibits the discharge from any single source any air contaminants for a period or periods aggregating more than three minutes in any one hour which is as dark or darker in shade than a reading of 1 on the Ringelmann Chart or of such opacity to obscure an observer's view to a degree equal to or greater than a reading of 1 on the Ringelmann Chart. Sources subject to this rule include the enclosed flare and waste grinder engine. Improperly maintained engines and flares have the potential to violate this rule. Compliance will be assured by maintaining the units according to manufacturer maintenance schedules and adherence to the District-approved *Landfill Gas Collection and Control System Plan* and *Rule 333 Inspection and Maintenance Plan*.

Rule 303 - Nuisance: This rule prohibits the City of Lompoc from causing a public nuisance due to the discharge of air contaminants. There are no recent nuisance complaints in the District files that can be attributable to operation of the Lompoc Sanitary Landfill facility. All nuisance complaints are investigated by the District and follow the guidelines outlined in Policy and Procedure I.G.2 (Compliance Investigations).

Rule 304 - Particulate Matter, Northern Zone: Lompoc Sanitary Landfill is considered a Northern Zone source. This rule prohibits the discharge into the atmosphere from any source particulate matter (PM) in excess of 0.3 grains per standard cubic feet (gr/scf) at standard conditions.

Rule 306 - Dust and Fumes - Northern Zone: Lompoc Sanitary Landfill is considered a Northern Zone source. The maximum allowable concentrations are determined as a function of volumetric discharge, measured in standard cubic feet per minute (scfm), and are listed in Table 306(a) of the rule. Emission units subject to this rule include the enclosed flare and waste grinder engine. Additionally, earthmoving activities at the landfill are also subject to this rule. Compliance will be assured by requiring the equipment to be maintained according to manufacturer maintenance schedules and taking appropriate dust control measures.

Rule 309 - Specific Contaminants: Under Section A, no source may discharge sulfur compounds and combustion contaminants in excess of 0.2 percent (%) as sulfur dioxide by volume and 0.1 gr/scf (at 12% CO₂) respectively. Due to the use of LFG, CARB diesel, and propane as fuels, sulfur and particulate emissions are expected to comply with the specified limits.

Rule 310 - Odorous Organic Compounds: This rule prohibits the discharge of hydrogen sulfide (H₂S) and organic sulfides that result in a ground level impact beyond the property boundary in excess of either 0.06 parts per million by volume (ppmv) averaged over 3 minutes and 0.03 ppmv averaged over one hour. No measured data at the fenceline exists to confirm compliance with this rule. There are no recent complaints of H₂S or organic sulfide odors related to this source in the District files.

Rule 311 - Sulfur Content of Fuels: This rule limits the sulfur content of fuels combusted at Lompoc Sanitary Landfill to 50 gr/100 scf (calculated as H₂S) [or 796 ppmvd] for gaseous fuels. However, this permit restricts the sulfur content of LFG burned in the enclosed flare to 260 ppmvd. Propane used at the facility shall meet Gas Processors Association specifications for propane or HD-5 and shall have a total sulfur content no greater than 15 gr/100 scf (239 ppmv). CARB ultra-low sulfur diesel fuel with a maximum sulfur content of 15 parts per million by weight shall be used. Compliance with this requirement is demonstrated via gas analyses and vendor billing vouchers.

Rule 317 - Organic Solvents: This rule sets specific prohibitions against the usage of both photochemically and non-photochemically reactive organic solvents (40 pounds [lb] per day and 3,000 lb/day respectively). Solvents may be used by City of Lompoc during normal operations for degreasing by wipe cleaning and use in paints and coatings for maintenance operations. There is the potential to exceed the limits during significant surface coating activities. Per Condition 9.C.6 of this permit, the City of Lompoc is required to maintain records to ensure compliance with this rule.

Rule 321 - Solvent Cleaning Operations: This rule sets equipment and operational standards for degreasers using organic solvents. Small unheated solvent cleaners that are less than one gallon in capacity or have an evaporative surface area of less than one square foot (aggregate cap of ten square feet) are exempt from all rule provisions, except Section G.2. Compliance is determined via facility inspections.

Rule 322 - Metal Surface Coating Thinner and Reducer: This rule prohibits the use of photochemically reactive solvents for use as thinners or reducers in metal surface coatings. Per Condition 9.C.6 of this permit, the City of Lompoc is required to maintain records during maintenance operations to ensure compliance with this rule.

Rule 323 - Architectural Coatings: This rule sets standards for many types of architectural coatings. The primary coating standard that applies to the City of Lompoc is the industrial maintenance coating limit of 250 grams (g) ROC per liter (l) of coating, as applied. The City of Lompoc is required to comply with the administrative requirements under Section F for each container at the facility.

Rule 323.1 – Architectural Coatings: This rule became effective on January 1, 2015. It does not lower the volatile organic compound (VOC) limit for industrial maintenance coatings, but it does lower the limits for certain other coating types.

Rule 324 - Disposal and Evaporation of Solvents: This rule prohibits any source from disposing more than one and a half gallons of any photochemically reactive solvent per day by means that allows the evaporation of the solvent into the atmosphere. Per Condition 9.C.6 of this permit, the City of Lompoc is required to maintain records to ensure compliance with this rule.

Rule 326 - Storage of Reactive Organic Compound Liquids: This rule applies to equipment used to store reactive organic compound liquids with a vapor pressure greater than 0.5 pound per square inch absolute (psia) and has a capacity of 5,000 gallons or more. The two used oil tanks are exempt from this rule because the vapor pressure is less than 0.5 psia. The condensate tank is exempt from this rule because it has a capacity of less than 5,000 gallons. Compliance will be assessed via District inspections.

Rule 330 - Surface Coating of Metal Parts and Products: This rule sets standards for many types of coatings applied to metal parts and products. In addition to the ROC standards, this rule sets operating standards for application of the coatings, labeling and recordkeeping. This rule does not apply to architectural coatings. It is not anticipated that the City of Lompoc will trigger the requirements of this rule. Compliance shall be based on site inspections.

Rule 333 - Control of Emissions from Reciprocating Internal Combustion Engines: This rule applies to all engines with a rated bhp of 50 or greater that are fueled by liquid or gaseous fuels. The IC engine powering the waste grinder is subject to this rule. The engine will be monitored quarterly for NO_x and carbon monoxide. The permitted exhaust concentration limits are lower than the Rule 333 limits due to the Tier 4 engine rating. Compliance with the NSR exhaust concentration limits ensures compliance with the Rule 333 exhaust concentration limits.

Rule 341 - Municipal Solid Waste Landfills: This rule applies to all MSW landfills that commenced construction, reconstruction, or modification prior to May 30, 1991 and has accepted waste at any time since November 8, 1987, or has additional design capacity available for future expansion. MSW landfills that are subject to the provisions of NSPS Subpart WWW are exempt from Rule 341 requirements. Landfills that previously followed Subpart WWW are now subject to a combination of California's Methane Emissions from MSW Landfills state regulation and portions of 40 CFR Part 62 Subpart OOO due to the EPA's partial approval of California's State Plan. The City of Lompoc is subject to Rule 341 but complies with the Rule requirements by complying with the more stringent California Methane Emissions from MSW Landfills state regulation and portions of 40 CFR Part 62 Subpart OOO due to the EPA's partial approval of California's State Plan.

Rule 346 - Loading of Organic Liquid Cargo Vessels: This rule applies to the transfer of organic liquids into an organic liquid cargo vessel. For this rule only, an organic liquid cargo vessel is defined as a truck, trailer or railroad car. No loading of organic liquids occurs at Lompoc Sanitary Landfill.

Rule 353 - Adhesives and Sealants: This rule applies to the use of adhesives, adhesive bonding primers, adhesive primers, sealants, sealant primers, or any other primers. Compliance shall be based on site inspections, recordkeeping, and reporting.

Rule 359 - Flares and Thermal Oxidizers: This rule applies to the use of flares and thermal oxidizers at oil and gas production sources, petroleum refinery and related sources, natural gas services and transportation sources and wholesale trade in petroleum or petroleum products. Since the enclosed flare subject to this permit is not used at any of the sources detailed above, Rule 359 does not apply.

Rule 505 - Breakdown Conditions: This rule describes the procedures that the City of Lompoc must follow when a breakdown condition occurs to any emissions unit associated with the City of Lompoc's equipment or operations. A breakdown condition is defined as an unforeseeable failure or malfunction of (1) any air pollution control equipment or related operating equipment which causes a violation of an emission limitation or restriction prescribed in the District Rules and Regulations, or by State law, or (2) any in-stack continuous monitoring equipment, provided such failure or malfunction:

- a. Is not the result of neglect or disregard of any air pollution control law or rule or regulation;
- b. Is not the result of an intentional or negligent act or omission on the part of the permittee;
- c. Is not the result of improper maintenance;
- d. Does not constitute a nuisance as defined in Section 41700 of the Health and Safety Code;
- e. Is not a recurrent breakdown of the same equipment.

Rule 603 - Emergency Episode Plans: Section A of this rule requires the submittal of *Stationary Source Curtailment Plan* from any business, commercial, industrial or governmental facility or activity for all stationary sources which can be expected to exceed 100 TPY of hydrocarbons, oxides of nitrogen (NO_x), carbon monoxide (CO), or particulate matter (PM). The permittee is not required to submit an *Emergency Episode Plan* as part of permit issuance.

Rule 810 - Federal Prevention of Significant Deterioration: This rule was adopted January 20, 2011 and amended June 20, 2013 to incorporate the federal Prevention of Significant Deterioration (PSD) rule requirements into the District's Rules and Regulations. The permit does not trigger federal PSD permit requirements.

3.5 Compliance History

This section contains a summary of the compliance history for this facility and was obtained from documentation contained in the District's administrative file.

- 3.5.1 Source Tests: Since the issuance of the last permit reevaluation on August 20, 2018, there have been eight source tests conducted at the facility. These source tests were conducted on September 27, 2018, October 22, 2019, November 4, 2020, October 21, 2021, October 13, 2022, October 11, 2023, October 10, 2024, and October 22, 2025. The most recent source test for the enclosed flare showed compliance with permit limits.
- 3.5.2 Violations: Since the issuance of the last permit reevaluation on August 20, 2018, this facility has been inspected on December 20, 2018, April 26, 2019, November 15, 2019, May 29, 2020, November 6, 2020, May 19, 2021, December 17, 2021, June 17, 2022, June 28, 2023, September 10, 2024, March 27, 2025, November 12, 2025, January 22, 2026, and May 14, 2026. Since the issuance of the last permit reevaluation, the following Notice of Violations (NOVs) have been issued to this facility:

VIOLATION TYPE	NUMBER	ISSUE DATE	DESCRIPTION OF VIOLATION
PERMIT	11463	05/01/2019	Failing to conduct monthly wellhead monitoring in November 2017.
PERMIT	13250	01/20/2023	First half of 2020 Compliance Verification Report Deviations
PERMIT	13251	01/20/2023	Second half of 2020 Compliance Verification Report Deviations
PERMIT	13252	01/20/2023	First half of 2021 Compliance Verification Report Deviations
PERMIT	13439	06/21/2023	Second half of 2021 Compliance Verification Report Deviations
EMISSIONS	13461	07/11/2023	District Rule 206 and the Landfill Regulation were violated by exceeding a methane concentration of 500 ppm at two locations on the landfill surface, in excess of the Surface Methane Emissions Standards set by Condition 9.C.1.a.i of Pt-70 PTO 14708 and the California Code of Regulations Subchapter 10, Article 4, Subarticle 6 §95465(a)(1).
EMISSIONS	13815	10/03/2024	Exceeding the Surface Methane Emissions by exceeding a methane concentration of 500 ppm at 4 locations on the landfill surface.
PERMIT	13951	04/30/2025	Failing to re-monitor exceedance locations ten days after the detection of a second exceedance.
PERMIT	13952	04/30/2025	Failing to operate the flare at all times when combustible gases are routed through the flare, except for periods of startup, shutdown, or malfunction not to exceed one hour each and failing to operate the gas collection and control system continuously.
PERMIT	13953	04/30/2025	Failing to operate the enclosed flare within the parameter ranges established during the most recent source test.

VIOLATION TYPE	NUMBER	ISSUE DATE	DESCRIPTION OF VIOLATION
PERMIT	13954	04/30/2025	Failing to measure gauge pressure at each individual well on a monthly basis and failing to monitor each well monthly for Nitrogen or Oxygen and Temperature. Pressure monitoring was missed on three wells on January 12, 2023, and on one well on April 5, 2023. Nitrogen or Oxygen and Temperature monitoring was missed on two wells on January 12, 2023 and on one well on April 5, 2023.
PERMIT	13955	04/30/2025	Failing to measure gauge pressure at each individual well on a monthly basis and failing to monitor each well monthly for Nitrogen or Oxygen and Temperature. Pressure monitoring was missed on three wells and nitrogen/oxygen and temperature monitoring on five wells; all occurred in the month of June 2023.
PERMIT	13956	04/30/2025	Failing to request written approval from the Control Officer to waive the portable analyzer monitoring requirements established by Pt-70/Reeval 14708 Condition 9.C.4.c.vi and District Rule 333.F.3 when the engine was unable to operate due to mechanical failure.
EMISSIONS	14323	12/17/2025	Exceeding the Surface Methane Emissions Standards set by Condition 9.C.1.a.i of Pt-70 14708 and the California Code of Regulations Subchapter 10, Article 4, Subarticle 6 §95465(a)(1) by exceeding a methane concentration of 500 ppm at 4 locations on the landfill surface.
PERMIT	14339	01/15/2026	Failing to operate the enclosed flare within the parameter ranges established during the most recent source test.
PERMIT	14364	02/17/2026	Failing to monitor each well monthly for Nitrogen or Oxygen and Temperature.
EMISSIONS	14428	06/12/2026	Exceeding the Surface Methane Emissions Standards set by Condition 9.C.1.a.i of Pt-70 14708 and the California Code of Regulations Subchapter 10, Article 4, Subarticle 6 §95465(a)(1) by exceeding a methane concentration of 500 ppm at 2 locations on the landfill surface
PERMIT	14429	06/04/2026	Failing to operate the enclosed flare within the parameter ranges established during the most recent source test.
PERMIT	14430	06/12/2026	Failing to monitor each well monthly for Nitrogen or Oxygen and Temperature.

3.5.3 Variances: Since the issuance of the last permit reevaluation, the City of Lompoc has not sought any variances from the District.

3.5.4 Significant Historical Hearing Board Actions: Since the issuance of the last permit reevaluation, there have been no significant Hearing Board actions regarding this facility.

Table 3.1: Generic Federally Enforceable District Rules

Generic Requirements	Affected Emission Units	Basis for Applicability	Adoption Date
<u>RULE 101</u> : Compliance by Existing Installations: Conflicts	All emission units	Emission of pollutants	June 1981
<u>RULE 102</u> : Definitions	All emission units	Emission of pollutants	August 25, 2016
<u>RULE 103</u> : Severability	All emission units	Emission of pollutants	October 23, 1978
<u>RULE 201</u> : Permits Required	All emission units	Emission of pollutants	June 19, 2008
<u>RULE 202</u> : Exemptions to Rule 201	Applicable emission units	Insignificant activities/emissions, per size/rating/function	August 25, 2016
<u>RULE 203</u> : Transfer	All emission units	Change of ownership	May 16, 2024
<u>RULE 204</u> : Applications	All emission units	Addition of new equipment or modification to existing equipment.	August 25, 2016
<u>RULE 205</u> : Standards for Granting Permits	All emission units	Emission of pollutants	April 17, 1997
<u>RULE 206</u> : Conditional Approval of Authority to Construct or Permit to Operate	All emission units	Applicability of relevant Rules	October 15, 1991
<u>RULE 207</u> : Denial of Applications	All emission units	Applicability of relevant Rules	October 23, 1978
<u>RULE 208</u> : Action on Applications – Time Limits	All emission units. Not applicable to Part 70 permit applications.	Addition of new equipment of modification to existing equipment.	April 17, 1997
<u>RULE 212</u> : Emission Statements	All emission units	Administrative	October 20, 1992
<u>RULE 301</u> : Circumvention	All emission units	Any pollutant emission	October 23, 1978
<u>RULE 302</u> : Visible Emissions	All emission units	PM emissions	June 1981
<u>RULE 303</u> : Nuisance	All emission units	Emissions that can injure, damage or offend.	October 23, 1978
<u>RULE 304</u> : Particulate Matter – Northern Zone	Each PM source	Emission of PM	October 23, 1978
<u>RULE 306</u> : Dust and Fumes – Northern Zone	Each PM source	Emission of PM	October 23, 1978
<u>RULE 309</u> : Specific Contaminants	All emission units	Combustion contaminants	October 23, 1978
<u>RULE 311</u> : Sulfur Content of Fuel	All combustion units	Use of fuel containing sulfur	October 23, 1978
<u>RULE 317</u> : Organic Solvents	Emission units using solvents	Solvent used in process operations.	October 23, 1978
<u>RULE 321</u> : Solvent Cleaning Operations	Emission units using solvents	Solvent used in process operations.	June 21, 2012
<u>RULE 322</u> : Metal Surface Coating Thinner and Reducer	Emission units using solvents	Solvent used in process operations.	October 23, 1978
<u>RULE 323</u> : Architectural Coatings	Paints used in maintenance and surface coating activities	Application of architectural coatings.	November 15, 2001

Generic Requirements	Affected Emission Units	Basis for Applicability	Adoption Date
<u>RULE 323.1</u> : Architectural Coatings	Paints used in maintenance and surface coating activities.	Application of architectural coatings.	June 19, 2014
<u>RULE 324</u> : Disposal and Evaporation of Solvents	Emission units using solvents	Solvent used in process operations.	October 23, 1978
<u>RULE 353</u> : Adhesives and Sealants	Emission units using adhesives and sealants	Adhesives and sealants use.	June 21, 2012
<u>RULE 505</u> : Breakdown Conditions	All emission units	Breakdowns where permit limits are exceeded or rule requirements are not complied with.	October 23, 1978
<u>REGULATION VIII (RULE 801)</u> : New Source Review - Definitions and General Requirements	All emission units	Addition of new equipment or modification to existing equipment.	August 25, 2016
<u>REGULATION VIII (RULE 802)</u> : New Source Review	All emission units	Addition of new equipment or modification to existing equipment.	August 25, 2016
<u>REGULATION VIII (RULE 804)</u> : Offsets	All emission units	Addition of new equipment or modification to existing equipment.	August 25, 2016
<u>REGULATION VIII (RULE 805)</u> : Air Quality Impact Analysis, Modeling, Monitoring, and Air Quality Increment Consumption	All emission units	Addition of new equipment or modification to existing equipment.	August 25, 2016
<u>REGULATION VIII (RULE 806)</u> : Emission Reduction Credits	All emission units	Addition of new equipment or modification to existing equipment.	May 16, 2024
<u>REGULATION VIII (RULE 808)</u> : New Source Review for Major Sources of Hazardous Air Pollutants	All emission units	Addition of new equipment or modification to existing equipment.	May 20, 1999
<u>REGULATION VIII (RULE 809)</u> : Federal Minor Source New Source Review	All emission units	Addition of new equipment or modification to existing equipment.	August 25, 2016
<u>REGULATION VIII (RULE 810)</u> : Federal Prevention of Significant Deterioration (PSD)	All emission units	Addition of new equipment or modification to existing equipment.	June 20, 2013
<u>REGULATION IX (RULE 901)</u> : New Source Performance Standards (NSPS)	Landfill Surface	Landfill to comply with emission standards found in the regulation	September 20, 2010
<u>REGULATION XIII: PART 70 OPERATING PERMIT PROGRAM (RULE 1301)</u> : General Information	All emission units	Lompoc Sanitary Landfill is subject to regulations promulgated by the EPA	August 15, 2024

Generic Requirements	Affected Emission Units	Basis for Applicability	Adoption Date
<u>REGULATION XIII: PART 70 OPERATING PERMIT PROGRAM (RULE 1302): Permit Application</u>	All emission units	Lompoc Sanitary Landfill is subject to regulations promulgated by the EPA	August 15, 2024
<u>REGULATION XIII: PART 70 OPERATING PERMIT PROGRAM (RULE 1303): Permits</u>	All emission units	Lompoc Sanitary Landfill is subject to regulations promulgated by the EPA	August 15, 2024
<u>REGULATION XIII: PART 70 OPERATING PERMIT PROGRAM (RULE 1304): Issuance, Renewal, Modification and Reopening</u>	All emission units	Lompoc Sanitary Landfill is subject to regulations promulgated by the EPA	October 18, 2018
<u>REGULATION XIII: PART 70 OPERATING PERMIT PROGRAM (RULE 1305): Enforcement</u>	All emission units	Lompoc Sanitary Landfill is subject to regulations promulgated by the EPA	November 9, 1993

Table 3.2: Unit-Specific Federally Enforceable District Rules

Unit-Specific Requirements	Affected Emission Units	Basis for Applicability	Adoption Date
<u>RULE 333: Control of Emissions from Reciprocating Internal Combustion Engines</u>	Waste Grinder Engine	Engine rated greater than 50 bhp	June 19, 2008

Table 3.3: Unit-Specific Federally Enforceable Rules

40 CFR Part 62, Subpart OOO	Federal Plan Requirements for Municipal Solid Waste Landfills That Commenced Construction On or Before July 17, 2014 and Have Not Been Modified or Reconstructed Since July 17, 2014 (May 21, 2021)	Federally Enforceable (Y/N)
§62.16716(c)	Operate each interior wellhead with a landfill gas temperature less than 55 °C	Y
§62.16720(a)(4)	Monthly interior wellhead temperature monitoring and the corrective action sequence that follows a temperature exceedance	Y
§62.16722(a)(2)	Monitoring of the landfill gas nitrogen or oxygen concentration on a monthly basis	Y
§62.16722(a)(3)	Monitoring of the landfill gas temperature on a monthly basis	Y
§62.16724(k)	Reporting of corrective actions and associated timelines	Y
§62.16726(e)(2)	Recordkeeping of the landfill gas temperature, wellhead nitrogen level and wellhead oxygen level	Y
§62.16726(e)(5)	Root cause analysis for wellhead temperature corrective actions	Y

Table 3.4: Non-Federally Enforceable District Rules

Requirements	Affected Emission Units	Basis for Applicability	Adoption Date
<u>RULE 210</u> : Fees	All emission units	Administrative	May 16, 2024
<u>RULE 310</u> : Odorous Organic Sulfides	All emission units	Emission of organic sulfides	October 23, 1978
<u>RULES 501</u> : Variance Rule	All emission units	Administrative	October 23, 1978
<u>RULES 502</u> : Variance Rule	All emission units	Administrative	May 16, 2024
<u>RULES 503-504</u> : Variance Rules	All emission units	Administrative	October 23, 1978
<u>RULES 506-519</u> : Variance Rules	All emission units	Administrative	October 23, 1978

Table 3.5: Federally Enforceable State Rules

Methane Emissions from MSW Landfills Regulation	Section Description or Requirements
§95461	Regulation applies to all MSW landfills that received waste after January 1, 1977
§95464(a)	Gas collection and control system design plan and installation requirements
§95464(b)	General, flare, and other control devices requirements for the collection and control of gas and source test requirements
§95465	Instantaneous and integrated surface emission standards
§95466	Construction and working face exemptions.
§95467	Requirements to be met prior to permanent shutdown and removal of the gas collection and control systems
§95468	Alternative compliance options may be requested in place of the requirements of §95464, §95469, and §95471
§95469(a)	Permittee must monitor the landfill surface using the procedure specified in this section
§95469(b)	Permittee must monitor the gas control system using the procedure specified in this section
§95469(c)	Permittee must monitor the wellheads using the procedures specified in this section.
§95470(a)	Records listed in this section must be kept for a minimum of five years
§95470(b)	Reporting requirements include closure notification, equipment removal report, annual reports, waste-in-place report, and LFG heat input capacity report
§95471	Monitoring as specified in this regulation must be conducted according to the test methods and procedure specified in this section
§95472	Basis of penalties and the frequency that penalties can occur
§95473	Implementation, enforcement, and related fees
§95474	Other rules and regulations applying to MSW landfills
§95475	Definitions for this regulation
§95476	Severability condition of regulation

4.0 Engineering Analysis

4.1 General

The engineering analyses performed for this permit were limited to the review of:

- Emission factors and calculation methods for each emissions unit
- Emission control equipment (including Reasonably Available Control Technology, Best Available Control Technology [BACT], NSPS, NESHAP)
- Emission source testing, sampling, continuous emissions monitoring system (CEMS)
- Process monitors needed to ensure compliance

Unless noted otherwise, default ROC to total hydrogen carbon (THC) reactivity profiles from the District's document titled "*VOC to ROC Emission Factors and Reactivities for Common Source Types*" dated March 12, 2001 (version 1.2) were used to determine the non-methane, non-ethane fraction of THC.

The equipment located at the Lompoc Sanitary Landfill generates air emissions from the following sources:

- Landfill: Fugitive ROC emissions associated with the aerobic and anaerobic decomposition of the MSW deposited into the landfill.
- LFG Collection System: LFG is routed to the control system via a collection system. Due to the LFG composition and small number of fugitive components in the gas collection system, ROC emissions from the collection system are negligible.
- Enclosed Flare: NO_x, ROC, CO, oxides of sulfur (SO_x), PM, PM₁₀ and particulate matter less than 2.5 microns (PM_{2.5}) emissions are generated from the combustion of LFG and propane.
- Waste Grinder Engine: NO_x, ROC, CO, SO_x, PM, PM₁₀ and PM_{2.5} emissions are generated from the combustion of diesel.
- Vehicles: NO_x, ROC, CO, SO_x, PM, PM₁₀ and PM_{2.5} emissions associated with fuel combustion from mobile (vehicular) sources such as earthmoving equipment, garbage trucks, and light duty vehicle operations on the landfill. These are not regulated under this permit.
- Fugitive Dust: PM, PM₁₀ and PM_{2.5} emissions from fugitive dust associated with earthmoving, blasting of new fill material borrow areas, disturbed ground areas of the landfill, and traffic on the landfill's unpaved roads. These emissions have not been quantified in this permit.

4.2 Landfill

4.2.1 General: Table 5.1-1 of this permit shows the uncontrolled and controlled ROC emissions from the landfill surface associated with the aerobic and anaerobic decomposition of landfill waste. The data indicates a residual ROC fugitive emission rate of approximately 1.04 TPY occur when the LFG collection system is operating. The operation of the LFG collection system reduces the expected uncontrolled landfill fugitive emissions by approximately 73% on a mass basis (about 2.83 TPY of ROC). These residual fugitive emissions are evaluated within this permit for compliance with the District Rules and Regulations, since these emissions contribute to the Lompoc Sanitary Landfill stationary source emissions.

The landfill is required to be designed, maintained, monitored and operated to comply with 40 CFR Part 62 Subpart OOO and California's Methane Emissions from Municipal Solid Waste Landfills regulation. As such, this permit requires the implementation of a *Surface Monitoring, Maintenance, and Recordkeeping (SMMR) Plan* as well as monitoring and reporting the landfill surface emissions.

The basic element of the operating plan includes monitoring and recordkeeping of the following parameters:

- *Landfill Surface Methane Emissions Monitoring Program*. This determines if adequate and properly placed LFG collection wells are installed to collect LFG emissions. It also monitors the landfill's ground cover for cracks and other defects, and repairs any such defects that can create excessive direct-to-atmosphere leaks of LFG.

4.2.2 Emission Factors: Uncontrolled landfill gas (LFG) NMOC emissions are calculated using the emission equation specified in 40 CFR Part 63, Subpart AAAA § 63.1959(a)(1)(i)(A), as the actual year-to-year solid waste acceptance rate is known. This same equation is used for two separate purposes, specifically: (1) the Subpart AAAA applicability screen and (2) the NMOC potential to emit calculations in Table 5.1-1, with different values for the methane generation potential used for each purpose. For the Subpart AAAA applicability screen in Section 3.2.5, the subpart's default methane generation potential of 170 m³/Mg is required by §63.1959(a)(1), giving 6.415 Mg/yr. For the potential to emit calculations in Table 5.1-1 the District uses the AP-42 Section 2.4 arid-area default of 100 m³/Mg, giving 3.77 Mg/yr. The values listed below are those used for the applicability screen, together with the methane generation rate constant k. Because the facility is located in a geographical area with a 30-year annual average precipitation of less than 25 inches, the subpart's dry-climate default k value is applied. A site-specific value for NMOC concentration C_{NMOC} is utilized as a Tier 2 calculation, derived from gas removal system samples analyzed via EPA Method 25 or 25C. The calculation is performed using the following equation:

$$M_{NMOC} = \sum_{i=1}^n 2 k L_0 M_i (e^{-kt_i}) (C_{NMOC}) (3.6 \times 10^{-9}) \text{ (Eq. 1)}$$

Where:

- M_{NMOC} = Uncontrolled mass emission rate of NMOC in Mg/year
k = Methane generation rate constant (0.02/year, dry-climate default value)
L₀ = Methane generation potential (170 m³ per Mg of waste, default value)
M_i = Mass of the waste in the the ith section (Mg, from CVRs)
t_i = Age of the ith section (years)
C_{NMOC} = Concentration of NMOC (198 ppmv as hexane, City of Lompoc second half 2023 CVR; highest sampled value from 2021 to 2025 Tier 2 value)

93% of NMOC in the LFG is assumed to be ROC based on a staff report for District Rule 341. See Table 5.1-1 for details on the emission calculation used to establish the NMOC potential to emit for the permit.

- 4.2.3 Emission Controls: LFG is extracted from the landfill and transported to the enclosed flare for ROC and methane destruction. The required efficiency rate for methane is 99% or greater (see Section 4.4).

4.3 Landfill Gas Collection System

- 4.3.1 General: This system is comprised of vertical and horizontal wells that draw the produced LFG out of the refuse deposition zones in the landfill and into two inch diameter well pipes. The LFG is drawn out of the wells into an aboveground piping system that transmits the gas to the centralized collection point.

At the centralized location, condensate is removed from the collected LFG and delivered to the condensate storage tank. Collected condensate is disposed via direct injection into an enclosed flare. Following the condensate knockout, two electric motors create a suction pressure (vacuum) on the wells and gas collection piping system such that the LFG is drawn out of the landfill. After the gas exits the blowers, it is sent to an enclosed flare.

The LFG collection system is required to be designed, maintained, monitored and operated to comply with 40 CFR Part 62 Subpart OOO and California's Methane Emissions from Municipal Solid Waste Landfills regulation. As such, this permit conditionally requires the use of a *Landfill Gas Collection and Control System Plan*, as well as monitoring and reporting parameters related to the active collection system's operation.

The basic elements of the operating plan include monitoring and recordkeeping of the following parameters:

- *Monitoring Each LFG Collection Well for Temperature, Pressure, and Oxygen/Nitrogen Content*. This ensures that the landfill is not "aerobicized" to prevent the possibility of initiating an underground landfill fire or killing the anaerobes that generate the methane from the deposited refuse.

4.4 Enclosed Flare

- 4.4.1 General: The collected LFG is routed to the LFG Specialties EF625I6 12.010 MMBtu/hr enclosed flare. The enclosed flare is equipped with an automatic louver (which is a type of damper), automatic shutdown device, flame arrestor to prevent flashback, propane pilot, and thermocouples. Gas flow is continuously measured upstream of the flare by a flow meter. The maximum designed blower capacity is 400 scfm. Additionally, collected condensate from the condensate tank may be injected into the enclosed flare no more than 130 gallons/day for disposal via evaporation.

- 4.4.2 **Emission Factors:** The flare emission factors for NO_x and CO were set based on BACT requirements at the time of permit issuance for the enclosed flare. The NO_x emission factor is 0.060 lb/MMBtu. The CO emission factor is 0.200 lb/MMBtu. The ROC emission factor of 0.048 lb/MMBtu is based on the manufacturer's emission guarantee of 20 ppmv at 3% O₂ (as hexane). The PM emission factor is 0.020 lb/MMBtu based on the District default value for LFG fired flares. The PM₁₀ and PM_{2.5} emission factors are assumed to be equal to the PM factor. The SO_x emission factor was determined using mass balance.

$$ER = EF * FPP * HHV$$

Where:

ER = Emission rate (lb/unit time period, i.e., day, year)
EF = Pollutant specific emission factor (lb/MMBtu)
FPP = Gas flow rate per operating period (MMscf/time)
HHV = LFG fuel high heating value (Btu/scf)

- 4.4.3 **Emission Controls:** Emissions from the enclosed flare are controlled with high efficiency burner design, low NO_x burner, adequate combustion zone residence time (>0.6 seconds) and use of combustion zone temperature control systems.

The flare must operate at a minimum temperature based on a three-hour block average. This minimum temperature requirement is established by California's Regulation to Reduce Methane Emissions from Municipal Solid Waste Landfills.

4.5 Waste Grinder Engine

- 4.5.1 **General:** The waste grinder is used to process wood and green waste at the facility. The engine is permitted to operate up to 8 hours per day and 1,000 hours per year.

- 4.5.2 **Emission Factors:** The NO_x (2.239 g/bhp-hr), ROC (0.213 g/bhp-hr), CO (3.265 g/bhp-hr), and PM (0.022 g/bhp-hr) emission factors are based on EPA Tier 4 transitional engine emission standards as specified in CARB Executive Order U-R-001-0415 adjusted by "Not-to Exceed" multipliers. The engine family (BCPXL18.1HPA) is certified to 1.27 g/bhp-hr for NO_x and 0.001 g/bhp-hr for PM. Therefore, a multiplier of 1.5 has been applied to the Tier 4 transitional emission standards for NO_x, ROC and PM. A multiplier of 1.25 was applied to the CO factor. The PM₁₀ and PM_{2.5} emission factors are assumed to be equal to the PM factor. The SO_x emission factor was determined using mass balance.

Emissions are determined by the following equations:

E1, lb/day = Engine Rating (bhp) * EF (g/bhp-hr) * Daily Hours (hr/day) * (lb/453.6 g)
E2, tpy = Engine Rating (bhp) * EF (g/bhp-hr) * Annual Hours (hr/yr) * (lb/453.6 g) * (ton/2000 lb)

4.6 Condensate Management System

- 4.6.1 **General:** Condensate is removed from the collected LFG and routed to the 50-gallon condensate storage tank. Collected condensate is injected into the enclosed flare for disposal via evaporation. No more than 130 gallons of collected condensate may be injected into the enclosed flare for disposal via evaporation on a daily basis. The emissions from the incineration of the condensate in the enclosed flare are negligible.

4.7 Other Emission Sources

- 4.7.1 Onsite Mobile Source Emissions: The California Integrated Waste Management Board Solid Waste Facility Permit allows an average of 6,000 vehicles per month to use the facility. No emission estimates are available for this emissions source. Since these emissions are permit exempt, they are not included in the PTE for the facility or stationary source.
- 4.7.2 Fugitive Dust: Fugitive dust is created by earthmoving activities, wind action on disturbed ground areas, and vehicular traffic on unpaved roads. Ground road base (asphalt and concrete) is used to control dust. No emission estimates are available for this emissions source. Since these emissions are permit exempt, they are not included in the PTE for the facility or stationary source.

4.8 BACT/NSPS/NESHAP/MACT

- 4.8.1 BACT: Best Available Control Technology was required for the enclosed flare for NO_x, ROC, and CO at the time of ATC 14708 permit issuance. Evaluation of NO_x, ROC, and CO BACT included a review of South Coast Air Quality Management District, Bay Area Air Quality Management District, and San Joaquin Valley United Air Pollution Control District BACT databases applicable to non-hazardous landfill enclosed flares. BACT for the 12.010 MMBtu/hr enclosed flare was determined to be 0.060 lb/MMBtu for NO_x, 98% destruction efficiency or 20 ppmv at 3% O₂ (as hexane) outlet for ROC, and 0.200 lb/MMBtu for CO. Further discussion of the emission factors can be found in Section 4.4.2 and Table 4.1.
- 4.8.2 NSPS: Discussion of applicability regarding NSPS (40 CFR Part 60 Subpart Cf) is presented in Section 3.2.2.
- 4.8.3 NESHAP: This facility is not subject to the provisions of 40 CFR Part 61.
- 4.8.4 MACT: Lompoc Sanitary Landfill is not subject to the gas collection, control and operational monitoring standards of the USEPA-promulgated MACT of 40 CFR Part 63 Subpart AAAA, because its uncontrolled NMOC emission rate calculated under §63.1959 is below 50 Mg/yr. As discussed in Section 3.2.5, that determination rests on the Tier 2 site-specific NMOC concentration and carries the continuing obligations of §63.1959(a)(3)(iii), which are implemented at Conditions 9.C.1.c.xv, 9.C.1.c.xv.2 and 9.C.8.a.viii.

4.9 CEMS/Process Monitoring/Meter Calibration

- 4.9.1 CEMS: The City of Lompoc is not required to install CEMS.
- 4.9.2 Process Monitoring: In many instances, ongoing compliance beyond a single snapshot source test is assessed through process monitoring systems. Once these process monitors are in place, it is important that they be well maintained and calibrated to ensure that the required accuracy and precision of the devices are within specifications. At a minimum, the following process monitors are required to be operated, calibrated, and maintained in good working order:

Landfill Surface

- Portable analyzer for surface emissions monitoring
- Anemometer for wind speed

LFG Collection System

- Portable analyzer for nitrogen or oxygen wellhead monitoring
- Manometer or magnehelic gauge for wellhead pressure
- Thermocouple or thermometer for wellhead temperature
- Flow meter for totalized collected LFG
- Portable analyzer for components under positive pressure

Enclosed Flare

- Flow meter for LFG
- Flow meter for LFG condensate injection
- Thermocouples for combustion temperature
- Portable analyzer for components under positive pressure

Condensate Knockout

- Flow meter for LFG condensate

Waste Grinder Engine

- NO_x, CO, and O₂ portable analyzer for exhaust stack
- Non-resettable hour meter for hours of operation

The above process monitoring requirements shall be implemented according to a *Process Monitor Calibration and Maintenance Plan* and *Rule 333 Engine Inspection and Maintenance Plan*. These plans shall detail the specific meters and related monitoring and recording system required to be installed at this facility per the conditions of this permit. The plans shall identify the operating ranges of each meter, as well as meter calibration methodologies and frequencies. These plans shall take into consideration manufacturer recommended maintenance and calibration schedules. Where manufacturer guidance is not available, the recommendations of comparable equipment manufacturers and good engineering judgment shall be utilized.

As necessary to ensure compliance with this permit and applicable rule and regulations, the District may require City of Lompoc, by written notice, to install additional process monitors. Table 4.2 identifies the minimum emission sources, emissions control operating parameters, and monitoring frequencies that the District requires to be monitored.

4.10 Source Testing/Sampling

- 4.10.1 **Source Testing:** City of Lompoc is required to follow the District's *Source Test Procedures Manual* (May 24, 1990 and all subsequently approved updates). Source testing and sampling are required to ensure compliance with BACT, permitted emission limits, prohibitory rules, control measures, and the assumptions that form the basis of this operating permit.

The parameters to be source tested are listed below and include more specific requirements as identified in Table 4.3 and Table 4.4. Source testing requirements can be found in Condition [9.C.10](#). The District may require additional source testing if problems develop or if unique circumstances occur that warrant special testing. The following emissions points and control/monitoring systems are required to be source tested:

- Enclosed Flare (NO_x, ROC, Methane, CO, NMOC)
- Waste Grinder Engine (NO_x, ROC, CO, and PM)

4.10.2 Sampling: At a minimum, the following process streams are required to be sampled and analyzed:

- On an annual basis, a LFG sample shall be extracted downstream of the collection system blowers and analyzed for total sulfur content (ppmv) and higher heating value (HHV) [Btu/scf], and NMOC concentration (C_{NMOC}) [ppmv (as carbon)]. If any annual sulfur content measurement exceeds 208 ppmv, future sulfur content measurements shall be conducted on a quarterly basis.
- On a quarterly basis, a LFG sample shall be extracted downstream of the collection system blowers and analyzed for methane (percent by volume) and CO₂ (percent by volume).

As necessary to ensure compliance with this permit and applicable rules and regulations, the District may require the project, by written notice, to sample additional process streams in a manner and frequency specified by the District. All sampling and analyses are required to be performed according to District-approved procedures and methodologies. Typically, the appropriate American Society for Testing Materials (ASTM) methods are acceptable. It is important that all sampling and analysis be traceable by chain of custody procedures.

4.11 Part 70 Engineering Review: Hazardous Air Pollutant Emissions

HAP emissions were estimated for the landfill fugitive emissions, enclosed flare, and waste grinder engine. The HAP emission factors and emission estimates for these sources are shown in Table 5.6-1 and 5.6-2.

Table 4.1: Best Available Control Technology Requirements

Emission Source	Pollutant	BACT Technology	BACT Performance Standard
Enclosed Flare	NO _x	Low NO _x Burner	0.060 lb/MMBtu, 47 ppmvd at 3% O ₂
Enclosed Flare	ROC	Combustion temperature of 1,400 degrees Fahrenheit (°F) with 0.60 second residence time	0.048 lb/MMBtu, 98% destruction efficiency or 20 ppmvd at 3% O ₂ (as hexane)
Enclosed Flare	CO	Low NO _x Burner	0.200 lb/MMBtu, 256 ppmvd at 3% O ₂

Table 4.2: Process Monitoring Requirements

Monitoring Location	Parameter Monitored	Monitoring Method	Minimum Monitoring Frequency
Landfill Surface	Methane Concentration	Portable Analyzer	Quarterly
	Wind Speed	Anemometer	Quarterly
LFG Collection System	Oxygen/Nitrogen	Portable Analyzer	Monthly
	Pressure	Manometer or Magnehelic Gauge	Monthly
	Temperature	Thermocouple or Thermometer	Monthly
	LFG Flow	Flow meter	Continuously
	LFG Components	Portable Analyzer	Quarterly
Enclosed Flare	LFG Flow	Flow meter	Continuously
	LFG Condensate Flow	Flow meter	Continuously
	Combustion Temperature	Thermocouple or thermometer	Continuously (recorded at least every 15 minutes)
	LFG Components	Portable Analyzer	Quarterly
Condensate Knockout	LFG Condensate Flow	Flow meter	Continuously
Waste Grinder Engine	NO _x (ppmvd at 3% O ₂)	NO _x Portable Analyzer	Quarterly ^a
	O ₂ (ppmvd, raw value)	O ₂ Portable Analyzer	Quarterly ^a
	CO (ppmvd at 3% O ₂)	CO Portable Analyzer	Quarterly ^a
	Operational Hours	Non-resettable hour meter	Continuously

Notes:

- a. Portable analyzer testing of the Waste Grinder Engine exhaust is required during any quarter in which a source test is not performed and the engine is operated in excess of 20 hours per quarter. If such an engine cannot be operated for portable analyzer emissions testing due to mechanical failure or lack of fuel, the monitoring requirement may be waived provided written Control Officer approval is obtained prior to the end of the quarter.

Table 4.3: Enclosed Flare Source Test Requirements

Emission and Limit Test Points ⁽ⁱ⁾	Pollutants	Parameters ^(a)	Test Methods ^{(b)(c)}	Destruction Efficiency ^(d)	Concentration (ppmvd at 3% O ₂)	Mass Emissions (lb/hr)
Exhaust Stack	NO _x	ppmv, lb/hr	EPA Method 7E, CARB Method 100		47	0.72
	ROC	ppmv, lb/hr	EPA Method 18, SCAQMD 25.3	98% (mass basis)	20	0.58
	Methane	Inlet and outlet ppmv, lb/hr	EPA Method 18, EPA Method 25, EPA Method 25A ⁽ⁱ⁾	99% (mass basis)		
	CO	ppmv, lb/hr	EPA Method 10, CARB Method 100		256	2.40
	NMOC ^{(e)(k)}	Inlet ppmv, lb/hr	EPA Method 25, EPA Method 25A ⁽ⁱ⁾ , EPA Method 25C			
	Sampling Point Det.		EPA Method 1			
	Stack Gas Flow Rate	scfm	EPA Method 2			
	O ₂	Dry, Mol. Wt	EPA Method 3			
	Moisture Content	%	EPA Method 4			
	Temp. ^(f)	°C or °F	Thermocouple			
Fuel Gas	Fuel Gas Flow Rate	scfm	Fuel Gas Meter ^(g)			
	HHV	Btu/scf	ASTM D 1826-88			
	Total Sulfur Content ^(h)	ppmv	ASTM D 1072			

Notes:

- a. The emission rates shall be based on EPA Methods 2 and 4, or Method 19 along with the heat input rate.
- b. Alternative methods may be acceptable on a case-by-case basis.
- c. A minimum of three 40-minute runs shall be obtained during each test.
- d. Destruction rate efficiency = $[100 \times (\text{inlet mass} - \text{outlet mass})] \div (\text{inlet mass})$
- e. NMOC samples shall be collected from the common header pipe per the requirements of 9.C.1.c.xv.1. The sample location on the common header pipe shall be before any gas moving, condensate removal, or treatment system equipment. For active collection systems, a minimum of three samples shall be collected from the header pipe.
- f. Temperature to be measured every 15 minutes at a minimum and averaged over the course of the source test.
- g. Fuel meter shall be calibrated in accordance with the procedures and timelines specified by the manufacturer. Results shall be corrected for temperature and pressure at standard temperature and pressure (60 °F and 14.7 psia).
- h. Total sulfur content fuel samples shall be obtained using EPA Method 18 with Tedlar Bags (or equivalent) equipped with Teflon tubing and fittings. Turnaround time for laboratory analysis of these samples shall be no more than 24 hours from sampling in the field. Results shall be reported as H₂S.
- i. All emission determinations shall be made in an “as found” operating condition, at the maximum attainable firing rate to be approved by the source test plan.
- j. The methane as carbon should be subtracted from the EPA Method 25A total hydrocarbon value as carbon to give NMOC concentration as carbon; then, the NMOC concentration as carbon must be divided by 6 to convert from NMOC as carbon to NMOC as hexane.
- k. EPA Method 25A shall be used in cases where the inlet concentration is expected to be less than 50 ppm NMOC as carbon (8 ppm NMOC as hexane).

Table 4.4: Waste Grinder Engine Source Test Requirements

Emission and Limit Test Points	Pollutants	Parameters^(a)	Test Methods^{(b)(c)}	Concentration (ppmvd at 15% O₂)	Mass Emissions (lb/hr)
Exhaust Stack	NO _x	ppmv, lb/hr	EPA Method 7E, CARB Method 1-100	126	2.07
	ROC (as hexane)	ppmv, lb/hr	EPA Method 18	6	0.20
	CO	ppmv, lb/hr	EPA Method 7E, CARB Method 1-100	364	3.63
	PM ^(d)	lb/hr	CARB Method 5 (if requested per ATCM)		0.02
	Sampling Point Det.		EPA Method 1		
	Stack Gas Flow Rate	scfm	EPA Method 2, EPA Method 19		
	O ₂	Dry, Mol. Wt	EPA Method 3		
	Moisture Content	percent	EPA Method 4		

Table Notes:

- a. The emission rates shall be based on EPA Methods 2 and 4, or Method 19 along with the heat input rate.
- b. Alternative methods may be acceptable on a case-by-case basis.
- c. A minimum of three 40-minute runs shall be obtained during each test for NO_x, ROC, CO, and O₂.
- d. PM testing may be required by the District upon written notification to determine compliance with the ATCM.
- e. All emission determinations shall be made in an “as found” operating condition, at a representative, District-approved, IC engine load (gallon/hr).

5.0 Emissions

5.1 General

Emissions calculations are divided into permitted and exempt categories. District Rule 202 lists what equipment is exempt from permit. The permitted emissions for each emissions source are based on the equipment's PTE as defined by Rule 102. Section 5.2 details the permitted emission limits for each emission unit. Section 5.3 details the overall permitted emissions for the facility based on reasonable worst case scenarios using the PTE for each emissions source. Section 5.4 provides the federal PTE calculation using the definition of federal PTE used in Rule 1301. Section 5.5 provides the estimated HAP emissions from the equipment subject to this permit. Section 5.6 provides the estimated emissions from permit exempt equipment. In order to accurately track the emissions from a facility, the District uses a computer database. Attachment 10.3 contains the District's documentation for the information entered into that database.

5.2 Permitted Emission Limits - Emission Units

Landfill NMOC and ROC fugitive emissions are calculated using the formula provided in Section 4.2.2 and captured LFG data found in Table 5.1-2. The landfill fugitive PTE is listed in Table 5.1-1. The landfill NMOC and ROC fugitive data is calculated using a site specific NMOC value of 198 ppmv as hexane in this permit, based on the highest reported LFG sampling results from 2021 to 2025. This site specific NMOC concentration value is enforced under Condition 9.C.1.a.v. If future sampling indicates an NMOC reading over 198 ppmv as hexane, the permittee is required to modify the permit to address the higher site specific NMOC concentrations and NSR implications.

Table 5.2-1 lists the heat input ratings for the enclosed flare, horsepower rating of the waste grinder engine, and operating schedule for each of the combustion units. Table 5.2-2 lists the emission factors used in calculating the enclosed flare and waste grinder engine PTE. The daily and annual combustion unit PTE are listed in Table 5.2-3 using the input parameters provided in Tables 5.2-1 and 5.2-2.

ROC emissions related to the condensate evaporation in the flare are considered insignificant.

5.3 Permitted Emission Limits - Facility Totals

The total permitted facility emissions, based on permitted emissions from each emissions source are reported in Table 5.3. Additionally, the PTE for the Lompoc Sanitary Landfill stationary source is shown in Table 5.5.

5.4 Part 70: Federal Potential to Emit for the Facility

Table 5.4 lists the federal Part 70 PTE. Fugitives are counted in the federal PTE if the facility was subject to any applicable NSPS or NESHAP requirement was in effect as of August 7, 1980, or included in the categorical source list specified in 40 CFR 70.2. Lompoc Sanitary Landfill is not subject to an NSPS or NESHAP. Additionally, landfills are not listed in 40 CFR 70.2. Therefore, landfill fugitive emissions are not included in the federal PTE.

5.5 Part 70: Hazardous Air Pollutant Emissions for the Facility

Total emissions of hazardous air pollutants (HAPs) attributed to this facility were calculated for this permit reevaluation. HAP emission factors are listed in Table 5.6-1 and HAP emission estimates for the equipment subject to this permit are shown in Table 5.6-2.

5.6 *Exempt Emission Sources/Part 70 Insignificant Emissions*

The following facility equipment and activities are exempt from permit: water storage tank (Rule 201.A), routine surface coating maintenance (Rule 202.D.8), IC engines associated with propelling vehicles (Rule 202.F.1.c and Rule 333.B.1.b), lubricating oil tanks (Rule 202.V.3), and propane storage tanks (Rule 202.V.8). Insignificant activities are defined under District Rule 1301 as any activities with a PTE less than 2 TPY, or any HAP PTE less than 0.5 TPY. No emission units owned or operated by the City of Lompoc are considered insignificant emission units.

Table 5.1-1
Lompoc Sanitary Landfill - PT-70/Reeval 14708-R1
Landfill Fugitive Emissions

Date Landfill Opened 1961
Evaluation Year 2025

$$M_{\text{NMOC}} = \Sigma [2kL_0M_i(e^{-kt_i})(C_{\text{NMOC}})(3.6 \times 10^{-9})]$$

Name	Variable	Value	Units
Refuse methane generation potential ²	L_0	100	m ³ /Mg
Mass of waste accepted in year i (Mg) ³	M_i	--	Mg/yr
Methane generation constant ²	k	0.02	1/yr
Age of waste section i in Evaluation Year = (Eval Year - Waste Year)	t_i	--	yr
Concentration of NMOC ⁴	C_{NMOC}	198	ppmv (as hexane)
Conversion factor	--	3.60E-09	--

Uncontrolled NMOC Emissions, Mg/yr	3.77	Mg NMOC/yr
Uncontrolled NMOC Emissions, tons/yr	4.16	tons NMOC/year
Amount of NMOC Collected, tons/yr ⁵	3.04	tons NMOC/year
Fugitive NMOC Emissions to Atmosphere, tons/yr	1.12	tons NMOC/year
Fugitive ROC ⁶ Emissions to Atmosphere, tons/yr	1.04	tons ROC/year
Fugitive ROC Emissions to Atmosphere, lb/day	5.72	lb ROC/day

Notes:

1. Mass Conversion from Mg to ton = 1.1024
2. Reference: AP-42 Section 2.4 for Municipal Solid Waste Landfills (November 1998 and October 2008)
3. Uses waste in place data from second half 2025 CVR.
4. Reference: City of Lompoc; second half 2023 CVR; Highest sampled value from 2021 to 2025
5. See Table 5.1-2 for calculation.
6. ROC/NMOC = 0.93 (ref: SBCAPCD Rule 341, Staff Report September 18, 1997)

Table 5.1-2
Lompoc Sanitary Landfill - PT-70/Reeval 14708-R1
Captured Landfill Gas

Month	Gas Collected (scf) ¹
January	10,432,525
February	9,448,604
March	10,824,543
April	12,583,081
May	12,149,488
June	9,859,736
July	11,011,807
August	11,831,772
September	11,084,201
October	11,757,256
November	11,766,899
December	12,400,498
Total	135,150,409
Daily Average ²	370,275

Conversion and Captured Gas Calculation

370,275	scf/day of captured landfill gas
10,485	m ³ /day of captured landfill gas ³
2.08	m ³ /day of captured NMOC ⁴
7.55	kg/day of captured NMOC ⁵
2.76	Mg/year of captured NMOC
3.04	TPY of captured NMOC ⁶

Notes:

1. Monthly gas collected volumes are from 2025 CVRs.
2. Days in reporting period is 365 days.
3. 1 m³ is equal to 35.3147 cubic feet
4. NMOC concentration based City of Lompoc: second half 2023 CVR; Highest sampled value from 2021 to 2025
5. 1 kg NMOC is equal to 0.2749304 m³ NMOC (see the administrative file of this permit for calculations)
6. 1 Mg is equal to 1.1024 tons.

Convert NMOC m³ to kg
379.62 scf/lbmol
0.30 m/ft
86.20 lb/lb-mol
0.45 kg/lb
0.27 m³/kg NMOC

Table 5.2-1
Lompoc Sanitary Landfill - PT-70/Reeval 14708-R1
Combustion Equipment Information

No.	Make/Model	Device ID	Flare Use	Specifications				Operating Limitations				Fuel Properties	
				Burner Type	Fuel Type	Unit Rating (MMBtu/hr)	Fuel Flow Rate (scf/hr)	On-Line		Heat Input Limit		HHV ¹ (Btu/scf)	Total Sulfur ² (ppmv)
								hr/day	hr/year	per day	per year		
1	LFG Specialities EF62516	390236	LFG Combustion	Gas	LFG	12.010	21,562	24	8,760	288.240	105,207.600	557	260

No.	Make/Model	Device ID	Engine Use	Horsepower Rating	Operating Limitations	
					hr/day	hr/year
2	Caterpillar C18	114674	Waste Grinder	630	8	1,000

Notes:

1. 557 Btu/scf is a representative heating value, the actual heat value of the gas varies throughout the year.
2. The 260 ppmv total sulfur value represents a worst case value.

Table 5.2-2
Lompoc Sanitary Landfill - PT-70/Reeval 14708-R1
Combustion Equipment Emission Factors

No.	NO _x	ROC	CO	SO _x	PM	PM ₁₀	PM _{2.5}	Units	References
1	0.060	0.048	0.200	0.084	0.020	0.020	0.020	lb/MMBtu	NO _x and CO are manufacturer's guaranteed values. ROC is a calculated value based on 20 ppmv (as hexane) and the formula in Note 1 below. SO _x is a calculated value based on sulfur content and higher heating value of the LFG. PM, PM ₁₀ , and PM _{2.5} factors are based on District default values for flares.
	47	20	256	--	--	--	--	ppmvd @ 3% O ₂	NO _x and CO are calculated based on the lb/MMBtu values above and the formula in Note 1. ROC is a manufacturer's guaranteed value (as hexane).
2	2.000	0.190	3.500	--	0.020	0.020	0.020	g/kW-hr	NO _x , ROC, CO, and PM values are Tier 4 Interim emission factors for engines rated 120<=kW<=560 as specified in Caterpillar's CARB Executive Order U-R-001-0415 certification. PM ₁₀ and PM _{2.5} are assumed to be equal to the PM factor.
	1.493	0.142	2.612	0.0055	0.015	0.015	0.015	g/bhp-hr ²	NO _x , ROC, CO, PM, PM ₁₀ , and PM _{2.5} values were converted from g/kW-hr to g/bhp-hr. SO _x is based on the CARB diesel sulfur content of 0.0015% by weight.
	126	6	364	--	--	--	--	ppmvd @ 15% O ₂	NO _x , ROC (as hexane), and CO are calculated based on the g/bhp-hr values above and the formula in Note 3.

Notes:

1. Conversion between lb/MMBtu and ppmv used the following equation:

$$ppmv = \frac{lb}{MMBtu} * \text{Molar Volume} * 10^6 * \frac{(20.9 - \%O_2)}{20.9} * \frac{1}{\text{Molar Weight}} * \frac{1}{F_d}$$

Where:

Molar Volume = 385.3 dscf/lb-mol for LFG based on ATC 14708 application material.

O₂ = 3% for the flare.

Molar Weight = 46.01 lb/lb-mol for NO_x, 86.18 lb/lb-mol for ROC (as hexane), and 28.01 lb/lb-mol for CO.

F_d = 9,210 dscf/MMBtu based on ATC 14708 application material.

2. Conversion factor: 1 kW = 1.34 bhp

3. Conversion between g/bhp-hr and ppmv used the following equation:

$$ppmv = \frac{\frac{g}{bhp-hr} * MV * 10^{12}}{F_d * \frac{20.9}{20.9 - O_2} * BSFC * \text{Molar Weight} * \frac{g}{lb}}$$

Where:

Molar Volume = 379.7 dscf/lb-mol at 1 atm and 60 °F.

F_d = 9,080 dscf/MMBtu at 60 °F per SBCAPCD TRD Table 5.

O₂ = 15% for the engine.

BSFC = 6,676.03 Btu/bhp-hr based 137,000 Btu/gal heating value for diesel and 30.7 gal/hr fuel consumption.

Molar Weight = 46.01 lb/lb-mol for NO_x, 86.18 lb/lb-mol for ROC (as hexane), and 28.01 lb/lb-mol for CO.

Table 5.2-3

Lompoc Sanitary Landfill - PT-70/Reeval 14708-R1

Combustion Equipment Emission Limits

No.	NO _x		ROC		CO		SO _x		PM		PM ₁₀		PM _{2.5}	
	lb/day	TPY	lb/day	TPY	lb/day	TPY	lb/day	TPY	lb/day	TPY	lb/day	TPY	lb/day	TPY
1	17.29	3.16	13.84	2.52	57.65	10.52	24.16	4.41	5.76	1.05	5.76	1.05	5.76	1.05
2	16.58	1.04	1.58	0.10	29.02	1.81	0.06	0.00	0.17	0.01	0.17	0.01	0.17	0.01
Total	33.88	4.19	15.41	2.62	86.67	12.33	24.22	4.41	5.93	1.06	5.93	1.06	5.93	1.06

Table 5.3

Lompoc Sanitary Landfill - PT-70/Reeval 14708-R1

Facility Potential to Emit (FID: 08774)

Facility Potential to Emit														
Equipment Category	NO _x		ROC		CO		SO _x		PM		PM ₁₀		PM _{2.5}	
	lb/day	TPY	lb/day	TPY	lb/day	TPY	lb/day	TPY	lb/day	TPY	lb/day	TPY	lb/day	TPY
Landfill Fugitives			5.72	1.04										
Combustion Equipment	33.88	4.19	15.41	2.62	86.67	12.33	24.22	4.41	5.93	1.06	5.93	1.06	5.93	1.06
Total Emissions	33.88	4.19	21.13	3.67	86.67	12.33	24.22	4.41	5.93	1.06	5.93	1.06	5.93	1.06

Table 5.4
Lompoc Sanitary Landfill - PT-70/Reeval 14708-R1
Federal Potential to Emit (FID: 08774)

Federal Potential to Emit														
Equipment Category	NO _x		ROC		CO		SO _x		PM		PM ₁₀		PM _{2.5}	
	lb/day	TPY	lb/day	TPY	lb/day	TPY	lb/day	TPY	lb/day	TPY	lb/day	TPY	lb/day	TPY
Landfill Fugitives			--	--										
Combustion Equipment	33.88	4.19	15.41	2.62	86.67	12.33	24.22	4.41	5.93	1.06	5.93	1.06	5.93	1.06
Total Emissions	33.88	4.19	15.41	2.62	86.67	12.33	24.22	4.41	5.93	1.06	5.93	1.06	5.93	1.06

Table 5.5
Lompoc Sanitary Landfill - PT-70/Reeval 14708-R1
Stationary Source Potential to Emit (SSID: 08772)

Stationary Source Potential to Emit														
Facility	NO _x		ROC		CO		SO _x		PM		PM ₁₀		PM _{2.5}	
	lb/day	TPY	lb/day	TPY	lb/day	TPY	lb/day	TPY	lb/day	TPY	lb/day	TPY	lb/day	TPY
Lompoc Sanitary Landfill (FID: 08774)	33.88	4.19	21.13	3.67	86.67	12.33	24.22	4.41	5.93	1.06	5.93	1.06	5.93	1.06
Total Emissions	33.88	4.19	21.13	3.67	86.67	12.33	24.22	4.41	5.93	1.06	5.93	1.06	5.93	1.06

Table 5.6-1
Lompoc Sanitary Landfill - PT-70/Reeval 14708-R1
Hazardous Air Pollutant Emission Factors

HAP Emission Factors																			
Equipment	Acetaldehyde	Acetonitrile	Acrolein	Acrylonitrile	Arsenic	Benzene	Benzyl chloride	Bromomethane	1,2-Dibutadiene	Cadmium	Carbon disulfide	Carbon tetrachloride	Carbonyl sulfide	Chlorobenzene	Chlorodifluoromethane	Chloroethane	Chloroform	Chloromethane	Chromium
Fugitives	7.74E-02	5.56E-01	--	3.00E-01	--	5.09E-01	1.81E-02	2.10E-02	1.66E-01	--	2.00E-01	4.00E-02	1.22E-01	7.20E-02	7.96E-01	9.10E-02	4.00E-02	2.44E-01	--
Flare	1.17E-03	1.43E-02	1.68E-04	1.00E-05	1.31E-04	1.54E-03	--	--	--	3.17E-06	--	6.75E-05	--	1.56E-03	--	--	1.01E-04	--	1.03E-05
IC Engine	7.83E-01	--	3.39E-02	--	1.60E-03	1.86E-01	--	--	2.17E-01	1.50E-03	--	--	--	2.00E-04	--	--	--	--	6.00E-04

HAP Emission Factors																			
Dichlorobenzene	Dichloromethane	1,4-Dioxane	Ethylbenzene	Ethylene dibromide	Ethylene dichloride	Ethylidene dichloride	Formaldehyde	Hexachlorobutadiene	Hexane	Hydrogen chloride	Hydrogen fluoride	Isopropylbenzene	Lead	Manganese	Mercury	Methyl chloroform	Methyl ethyl ketone	Methyl isobutyl ketone	Methyl tert but
6.47E-01	6.00E-02	8.29E-03	5.28E+00	4.80E-03	6.00E-02	6.00E-02	1.17E-02	3.49E-03	3.10E+00	--	--	4.30E-01	--	--	1.22E-04	4.00E-02	5.44E+00	8.83E-01	1.18E-01
--	--	1.01E-05	--	7.85E-04	2.42E-03	--	6.79E-04	--	--	3.30E-06	8.13E-04	--	--	6.47E-06	--	6.05E-04	--	--	--
--	--	--	1.09E-02	--	--	--	1.73E+00	--	2.69E-02	1.86E-01	--	--	8.30E-03	3.10E-03	2.00E-03	--	--	--	--

HAP Emission Factors																				Units	References
Allyl ether	Methylene chloride	Naphthalene	Nickel	PAHs (not incl. naphthalene)	Propylene dichloride	Selenium	Styrene	1,1,2,2-Tetrachloroethane	Tetrachloroethylene	1,1,2-Trichloroethane	Toluene	Tribromomethane	1,2,4-Trichlorobenzene	Trichloroethylene	2,2,4-Trimethylpentane	Vinyl acetate	Vinyl chloride	Vinylidene chloride	Xylenes		
--	1.07E-01	--	--	5.20E-02	--	4.11E-01	6.00E-02	1.57E-01	6.00E-02	3.90E+00	1.24E-02	5.51E-03	8.50E-02	6.14E-01	2.48E-01	1.33E-01	6.00E-02	1.47E+01	ppmv	A	
1.69E-02	6.36E-02	3.17E-06	--	--	--	--	--	--	--	1.96E-01	--	--	--	--	--	1.37E-04	--	1.43E-03	lb/MMBtu	B	
--	1.97E-02	3.90E-03	3.62E-02	--	2.20E-03	--	--	--	--	1.05E-01	--	--	--	--	--	--	--	4.24E-02	lb/1000 gal	C	

References:

A1 - Tajiguas Landfill fugitives source test (2009-2013)

A2 - USEPA's AP-42 draft Table 2.4-1 Default Concentrations for LFG Constituents for Landfills with Waste in Place on or after 1992 (October 2008)

B1 - J&A Santa Maria Marian Medical LFG-fired flare source test (September 9-11, 2010)

B2 - CARB's CATEF for LFG-fired flares

B3 - HHV of 557 BTU/scf from Table 5.2-1 of this permit

C - VCAPCD's AB 2588 Combustion Emission Factors - Diesel Combustion Factors (internal combustion) (May 2001)

Table 5.6-2
Lompoc Sanitary Landfill - PT-70/Reeval 14708-R1
Annual Hazardous Air Pollutant Emissions

HAP Annual Emissions																			
Equipment	Acetaldehyde	Acetonitrile	Acrolein	Acrylonitrile	Arsenic	Benzene	Benzyl chloride	Bromomethane	1,3-Butadiene	Cadmium	Carbon disulfide	Carbon tetrachloride	Carbonyl sulfide	Chlorobenzene	Chlorodifluoromethane	Chloroethane	Chloroform	Chloromethane	Chromium
Fugitives ¹	2.22E-07	1.48E-06	--	1.04E-06	--	2.59E-06	1.49E-07	1.30E-07	5.84E-07	--	9.90E-07	4.00E-07	4.77E-07	5.27E-07	4.48E-06	3.82E-07	3.11E-07	8.01E-07	--
Flare	6.17E-02	7.52E-01	8.81E-03	5.26E-04	6.89E-03	8.11E-02	--	--	--	1.67E-04	--	3.55E-03	--	8.21E-02	--	--	5.29E-03	--	5.42E-04
IC Engine ²	7.21E-01	--	3.12E-02	--	1.47E-03	1.72E-01	--	--	2.00E-01	1.38E-03	--	--	--	1.84E-04	--	--	--	--	5.53E-04
	7.83E-01	7.52E-01	4.00E-02	5.27E-04	8.36E-03	2.53E-01	1.49E-07	1.30E-07	2.00E-01	1.55E-03	9.90E-07	3.55E-03	4.77E-07	8.23E-02	4.48E-06	3.82E-07	5.29E-03	8.01E-07	1.09E-03

HAP Emission Factors																			
Dichlorobenzene	Dichloromethane	1,4-Dioxane	Ethylbenzene	Ethylene dibromide	Ethylene dichloride	Ethylidene dichloride	Formaldehyde	Hexachlorobutadiene	Hexane	Hydrogen chloride	Hydrogen fluoride	Isopropylbenzene	Lead	Manganese	Mercury	Methyl chloroform	Methyl ethyl ketone	Methyl isobutyl ketone	Methyl tert but
6.19E-06	3.31E-07	4.75E-08	3.65E-05	5.86E-08	3.86E-07	3.86E-07	2.28E-08	5.92E-08	1.74E-05	--	--	3.36E-06	--	--	1.59E-09	3.47E-07	2.55E-05	5.75E-06	6.76E-07
--	--	5.31E-04	--	4.13E-02	1.27E-01	--	3.57E-02	--	--	1.74E-04	4.28E-02	--	--	3.40E-04	--	3.18E-02	--	--	--
--	--	--	1.00E-02	--	--	--	1.59E+00	--	2.48E-02	1.72E-01	--	--	7.64E-03	2.86E-03	1.84E-03	--	--	--	--
6.19E-06	3.31E-07	5.31E-04	1.01E-02	4.13E-02	1.27E-01	3.86E-07	1.63E+00	5.92E-08	2.48E-02	1.72E-01	4.28E-02	3.36E-06	7.64E-03	3.20E-03	1.84E-03	3.18E-02	2.55E-05	5.75E-06	6.76E-07

HAP Emission Factors																			
Methyl ether	Methylene chloride	Naphthalene	Nickel	PAHs (not incl. naphthalene)	Propylene dichloride	Selenium	Styrene	1,1,2,2-Tetrachloroethane	Tetrachloroethylene	1,1,2-Trichloroethane	Toluene	Tribromomethane	1,2,4-Trichlorobenzene	Trichloroethylene	2,2,4-Trimethylpentane	Vinyl acetate	Vinyl chloride	Vinylidene chloride	Xylenes
--	8.92E-07	--	--	3.82E-07	--	2.78E-06	6.55E-07	1.69E-06	5.20E-07	2.34E-05	2.04E-07	6.50E-08	7.26E-07	4.56E-06	1.39E-06	5.41E-07	3.78E-07	1.01E-04	
8.89E-01	3.34E+00	1.67E-04	--	--	--	--	--	--	--	1.03E+01	--	--	--	--	--	7.22E-03	--	7.52E-02	
--	1.81E-02	3.59E-03	3.33E-02	--	2.03E-03	--	--	--	--	9.71E-02	--	--	--	--	--	--	--	3.91E-02	
8.89E-01	3.36E+00	3.76E-03	3.33E-02	3.82E-07	2.03E-03	2.78E-06	6.55E-07	1.69E-06	5.20E-07	1.04E+01	2.04E-07	6.50E-08	7.26E-07	4.56E-06	1.39E-06	7.22E-03	3.78E-07	1.14E-01	

Notes:

1. Emissions were calculated by multiplying the concentration in ppm by the molecular weight of each HAP in lb/lbmol, dividing by the molecular weight of ROC (assumed to be equal to CH₄, 16.04 lb/lbmol) and multiplying by the fugitive ROC emissions in ton/yr.
2. Fuel consumption of 30.7 gal/min for this engine comes from Table 5.2-2 of this permit.
3. These are estimates only, and are not intended to represent emission limits.

6.0 Air Quality Impact Analyses

6.1 *Modeling*

Air quality modeling was not required for this facility or stationary source.

6.2 *Increments*

An air quality increment analysis was not required for this facility or stationary source.

6.3 *Monitoring*

Air quality monitoring was not required for this facility or stationary source.

6.4 *Health Risk Assessment*

A Health Risk Assessment was not required for this facility or stationary source.

7.0 CAP Consistency, Offset Requirements and ERCs

7.1 General

Santa Barbara County is in nonattainment for the state ozone ambient air quality standards. In addition, the County is nonattainment with the state PM₁₀ ambient air quality standard. Emissions from all emission units at the stationary source and its constituent facilities must be consistent with the provisions of the USEPA and State-approved Clean Air Plans (CAP) and must not interfere with progress towards attainment of federal and state ambient air quality standards. Under District regulations, any modifications at the source that result in an emissions increase of any nonattainment pollutant exceeding 25 lb/day must apply BACT. Additional increases may trigger offsets at the source or elsewhere so that there is a net air quality benefit for Santa Barbara County. These offset threshold levels are 240 lb/day for all attainment pollutants and precursors (except CO and PM_{2.5}) and 25 TPY for all non-attainment pollutants and precursors (except CO and PM_{2.5}).

7.2 Clean Air Plan

The 2007 Clean Air Plan, adopted by the District Board on August 16, 2007, addressed both federal and state requirements, serving as the maintenance plan for the federal eight-hour ozone standard and as the state triennial update required by the Health and Safety Code to demonstrate how the District will expedite attainment of the state eight-hour ozone standard. The plan was developed for Santa Barbara County as required by both the 1998 California Clean Air Act and the 1990 Federal Clean Air Act Amendments.

In December 2022 the District Board adopted the 2022 Ozone Plan which satisfies all state triennial planning requirements.

7.3 Offset Requirements

Per the District's revised NSR rules adopted on August 25, 2016, the Lompoc Sanitary Landfill stationary source is not required to offset emissions at this time because this permitting action is not subject to NSR and the stationary source PTE does not exceed the offset thresholds.

7.4 Emission Reduction Credits

The Lompoc Sanitary Landfill stationary source does not generate or provide ERCs.

8.0 Lead Agency Permit Consistency

The District is the lead agency for this permitting process. Pursuant to California Environmental Quality Act (CEQA) Guidelines §15300.4 and Section 1 of Appendix A (District List of Exempt Projects) of the District's *Environmental Review Guidelines* document (dated 11/2000), the issuance of this reevaluation/Permit to Operate is exempt from CEQA.

9.0 Permit Conditions

This section lists the applicable permit conditions for Lompoc Sanitary Landfill. Section A lists the standard administrative conditions. Section B lists generic permit conditions, including emission standards, for all equipment in this permit. Section C lists conditions affecting specific equipment. Section D lists non-federally enforceable permit conditions. Conditions listed in Sections A, B, and C are enforceable by the USEPA, the District, the State of California and the public. Conditions listed in Section D are enforceable only by the District and the State of California. Where any reference contained in Sections 9.A, 9.B, or 9.C refers to any other part of this permit, that part of the permit referred to is federally enforceable. In case of a discrepancy between the wording of a condition and the applicable federal or District rule(s), the wording of the rule shall control.

For the purposes of submitting compliance certifications or establishing whether or not a person has violated or is in violation of any standard in this permit, nothing in the permit shall preclude the use, including the exclusive use, of any credible evidence or information, relevant to whether a source would have been in compliance with applicable requirements if the appropriate performance or compliance test had been performed.

9.A Standard Administrative Conditions

The following federally enforceable administrative permit conditions apply to the City of Lompoc:

- A.1 **Consistency with Analysis.** Operation under this permit shall be conducted by the permittee consistent with all written data, specifications and assumptions included with the application and supplements thereof (as documented in the District's project file) and with the District's analyses under which this permit is issued as documented in the permit analyses prepared for and issued with this permit. [Ref: District Rule 206]
- A.2 **Grounds for Revocation.** Failure to abide by and faithfully comply with this permit shall constitute grounds for the Control Officer to petition for permit revocation pursuant to California Health and Safety Code Section 42307 et seq. [Ref: District Rule 1303]
- A.3 **Equipment Maintenance.** The equipment listed in this permit shall be properly maintained and kept in good condition at all times. The equipment manufacturer's maintenance manual, maintenance procedures and/or maintenance checklists (if any) shall be kept on site. [Ref: District Rule 206]
- A.4 **Reimbursement of Costs.** All reasonable expenses, as defined in District Rule 210, incurred by the District, District contractors, and legal counsel for all activities that follow the issuance of this permit, including but not limited to permit condition implementation, compliance verification and emergency response, directly and necessarily related to enforcement of the permit shall be reimbursed by the permittee as required by Rule 210. Reimbursable activities include work involving: permitting, compliance, CEMS, modeling/Air Quality Impact Analysis (AQIA), Data Acquisition System (DAS) and data telemetry. Notwithstanding the above, DAS system operation and maintenance shall be assessed fees based on a fee schedule as provided by the District. [Ref: District Rule 210]

- A.5 **Access to Records and Facilities.** As to any condition that requires for its effective enforcement the inspection of records or facilities by the District or its agents, the permittee shall make such records available or provide access to such facilities upon notice from the District. Access shall mean access consistent with California Health and Safety Code Section 41510 and Clean Air Act Section 114A. [Ref: District Rule 1303]
- A.6 **Compliance.** Nothing contained within this permit shall be construed by the permittee to allow the violation of any local, State or Federal rule, regulation, ambient air quality standard or air quality increment. [Ref: District Rule 1303]
- A.7 **Conflict Between Permits.** The requirements or limits that are more protective of air quality shall apply if any conflict arises between the requirements and limits of this permit and any other permitting actions associated with the equipment permitted herein. [Ref: District Rule 1303]
- A.8 **Complaint Response.** The permittee shall provide the District with the current name and position, address and 24 hour phone number of a contact person who shall be available to respond to complaints from the public concerning nuisance or odors. This contact person shall aid the District staff, as requested by the District, in the investigation of any complaints received; the permittee shall take corrective action, to correct the facility activity which is reasonably believed to have caused the complaint. [Ref: District Rule 206]
- A.9 **Consistency with State and Local Permits.** Nothing in this permit shall relax any air pollution control requirements imposed on the project by the permits required by federal, state, or other local agencies and any subsequent modifications of those permits. [Ref: District Rule 206]
- A.10 **Compliance with Permit Conditions.**
- a. The permittee shall comply with all permit conditions.
 - b. This permit does not convey property rights or exclusive privilege of any sort.
 - c. Any permit noncompliance constitutes a violation of the Clean Air Act and is grounds for enforcement action; for permit termination, revocation and re-issuance, or modification; or for denial of a permit renewal application.
 - d. It shall not be a defense for the permittee in an enforcement action that it would have been necessary to halt or reduce the permitted activity in order to maintain compliance with the conditions of this permit.
 - e. A pending permit action or notification of anticipated noncompliance does not stay any permit condition.
 - f. Within a reasonable time period, the permittee shall furnish any information requested by the Control Officer, in writing, for the purpose of determining:
 - i. Compliance with the permit, or
 - ii. Whether or not cause exists to modify, revoke and reissue, or terminate a permit or for an enforcement action.

- g. In the event that any condition herein is determined to be in conflict with any other condition contained herein, then, if principles of law do not provide to the contrary, the condition most protective of air quality and public health and safety shall prevail to the extent feasible. [Ref: 40 CFR §70.5(a)(6)(iii); District Rules 1303.D.1.j, 1303.D.1.n, 1303.D.1.l, 1303.D.1.k, and 1303.D.1.o]

A.11 **Emergency Provisions.** *Revoked.*

A.12 **Compliance Plan.**

- a. The permittee shall comply with all federally-enforceable requirements that become applicable during the permit term, in a timely manner.
- b. For all applicable equipment, the permittee shall implement and comply with any specific compliance plan required under any federally-enforceable rules or standards. [Ref: District Rule 1302.D.2]

A.13 **Right of Entry.** The Control Officer or their authorized representatives, upon the presentation of credentials, shall be permitted to enter upon the premises where a source is located or where records must be kept:

- a. To inspect at reasonable times the stationary source, including monitoring and control equipment, work practices, operations, and emission-related activity;
- b. To inspect and duplicate, at reasonable times, records required by this Authority to Construct;
- c. To sample substances or monitor emissions from the source or assess other parameters to assure compliance with the permit or applicable requirements, at reasonable times. [Ref: District Rule 1303.D.2.a]

A.14 **Severability.** The provisions of this permit are severable and if any provision of this permit is held invalid, the remainder of this permit shall not be affected thereby. [Ref: District Rule 103; District Rule 1303.D.1.i]

A.15 **Permit Life.** The Part 70 permit shall become invalid three years from the date of issuance unless a timely and complete renewal application is submitted to the District. Any operation of the source to which this Part 70 permit is issued beyond the expiration date of this Part 70 permit and without a valid Part 70 operating permit (or a complete Part 70 permit renewal application) shall be a violation of the CAAA, § 502(a) and 503(d) as well as District rules.

The permittee shall apply for renewal of the Part 70 permit no earlier than 18 months and not later than six months before the date of the permit expiration. Upon submittal of a timely and complete renewal application, the Part 70 permit shall remain in effect until the Control Officer issues or denies the renewal application. [Re: District Rule 1304.D.1]

- A.16 **Payment of Fees.** The permittee shall reimburse the District for all its Part 70 permit processing and compliance expenses for the stationary source on a timely basis. Failure to reimburse on a timely basis shall be a violation of this permit and of applicable requirements and can result in forfeiture of the Part 70 permit. Operation without a Part 70 permit subjects the source to potential enforcement action by the District and the USEPA pursuant to Section 502(a) of the Clean Air Act. [Re: *District Rules 1303.D.1; District Rule 1304.D.11; 40 CFR 70.6(a)(7)*]
- A.17 **Prompt Reporting of Deviations.** The permittee shall submit a written report to the District documenting each and every deviation from the requirements of this permit or any applicable federal requirements within 7 days after discovery of the violation, but not later than 180 days after the date of occurrence. The report shall clearly document 1) the probable cause and extent of the deviation, 2) equipment involved, 3) the quantity of excess pollutant emissions, if any, and 4) actions taken to correct the deviation. The requirements of this condition shall not apply to deviations reported to District in accordance with Rule 505: Breakdown Conditions. [Ref: *District Rule 1303.D.1; 40 CFR §70.6(a)(3)*]
- A.18 **Reporting Requirements/Compliance Certification.** The permittee shall submit compliance certification reports to the Control Officer every six months. These reports shall be submitted on District forms and shall identify each applicable requirement/condition of the permit, the compliance status with each requirement/condition, the monitoring methods used to determine compliance, whether the compliance was continuous or intermittent, and include detailed information on the occurrence and correction of any deviations (excluding emergency upsets) from permit requirement. The reporting periods shall be each half of the calendar year, e.g. January through June for the first half of the year. These reports shall be submitted by September 1st and March 1st, respectively, each year. Supporting monitoring data shall be submitted in accordance with the Condition 9.C.8. The permittee shall include a written statement from the responsible official, which certifies the truth, accuracy, and completeness of the reports. [Ref: *District Rule 1303.D.1; District Rule 1302.D.3; District Rule 1303.2.c*]
- A.19 **Recordkeeping Requirements.** A record of required monitoring information includes the following:
- a. The date, place as defined in the permit, and time of sampling, measurements, or maintenance activity;
 - b. The date(s) analyses or measurements were performed;
 - c. The company or entity that performed the analyses, measurements, or maintenance activities;
 - d. The analytical techniques or methods used;
 - e. The results of such analyses or measurements;
 - f. The operating conditions as existing at the time of sampling, measurements, or maintenance activity.

The records (electronic and hard copy), as well as all supporting information including calibration and maintenance records, shall be maintained for a minimum of five (5) years from date of initial entry by the permittee and shall be made available to the District upon request.

[Ref: District Rule 1303.D.1.f; 40 CFR §70.6(a)(3)(ii)(A)]

A.20 Conditions for Permit Reopening. The permit shall be reopened and revised for cause under any of the following circumstances:

- a. *Additional Requirements:* If additional applicable requirements (e.g. NSPS or MACT) become applicable to the source which has an unexpired permit term of three (3) or more years, the permit shall be reopened. Such a reopening shall be completed no later than 18 months after promulgation of the applicable requirement. However, no such reopening is required if the effective date of the requirement is later than the date on which the permit is due to expire, unless the original permit or any of its terms and conditions has been extended. All such re-openings shall be initiated only after a 30 day notice of intent to reopen the permit has been provided to the permittee, except that a shorter notice may be given in case of an emergency.
- b. *Inaccurate Permit Provisions:* If the District determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emission standards or other terms or conditions of the permit, the permit shall be reopened. Such re-openings shall be made as soon as practicable.
- c. *Applicable Requirement:* If the District determines that the permit must be revised or revoked to assure compliance with any applicable requirement, the permit shall be reopened. Such re-openings shall be made as soon as practicable.
- d. *Administrative Procedures:* To reopen a permit shall follow the same procedures as apply to initial permit issuance. Re-openings shall affect only those parts of the permit for which cause to reopen exists. If the permit is reopened, and revised, it will be reissued with the expiration date that was listed in the permit before the re-opening.

Administrative procedures to reopen and revise/revoke/reissue a permit shall follow the same procedures as apply to initial permit issuance. Re-openings shall affect only those parts of the permit for which cause to reopen exists. If the permit is reopened, and revised, it will be reissued with the expiration date that was listed in the permit before the re-opening.

[Ref: 40 CFR §70.6(a); 40 CFR §70.7(f)]

A.21 Emission Factor Revisions. The District may update the emission factors for any calculation based on USEPA AP-42 or District emission factors at the next permit modification or permit reevaluation to account for USEPA and/or District revisions to the underlying emission factors.

A.22 Federally-Enforceable Conditions. Each federally-enforceable condition in this permit shall be enforceable by the USEPA and members of the public. None of the conditions in the District-only enforceable section of this permit are federally-enforceable or subject to the public/USEPA review. [Ref: CAAA §502(b)(6); 40 CFR §70.6(b)]

9.B Generic Conditions

The generic conditions listed below apply to all emission units, regardless of their category or emission rates. These conditions are federally-enforceable. These rules apply to the equipment and operations at Lompoc Sanitary Landfill, as they currently exist. Compliance with these requirements is discussed in Section 3.4.2. In case of a discrepancy between the wording of a condition and the applicable federal or District rule(s), the wording of the rule shall control.

- B.1 **Circumvention (Rule 301).** A person shall not build, erect, install, or use any article, machine, equipment or other contrivance, the use of which, without resulting in a reduction in the total release of air contaminants to the atmosphere, reduces or conceals an emission which would otherwise constitute a violation of Division 26 (Air Resources) of the Health and Safety Code of the State of California or of these Rules and Regulations. This Rule shall not apply to cases in which the only violation involved is of Section 41700 of the Health and Safety Code of the State of California, or of District Rule 303. [*Ref: District Rule 301*]
- B.2 **Visible Emissions (Rule 302).** The permittee shall not discharge into the atmosphere from any single source of emission any air contaminants for a period or periods aggregating more than three minutes in any one hour that is:
- a. As dark or darker in shade as that designated as No. 1 on the Ringelmann Chart, as published by the United States Bureau of Mines, or
 - b. Of such opacity as to obscure an observer's view to a degree equal to or greater than does smoke described in subsection B.2.a above. [*Ref: District Rule 302*]
- B.3 **Nuisance (Rule 303).** No pollutant emissions from any source at the permittee shall create nuisance conditions. No operations shall endanger health, safety or comfort, nor shall they damage any property or business. [*Ref: District Rule 303*]
- B.4 **Particulate Matter – Northern Zone (Rule 304).** The permittee shall not discharge into the atmosphere, from any source, particulate matter in excess of 0.3 gr/scf of gas at standard conditions. [*Ref: District Rule 304*]
- B.5 **Dust and Fumes - Northern Zone (Rule 306).** The permittee shall not discharge into the atmosphere, from any source, dust or fumes in excess of the concentrations listed in Table 306(a) of Rule 306. [*Ref: District Rule 306*]
- B.6 **Specific Contaminants (Rule 309).** The permittee shall not discharge into the atmosphere, from any single source, sulfur compounds, combustion contaminants, NO_x and CO in excess of the standards listed in Sections A, E, and G of Rule 309. [*Ref: District Rule 309*]
- B.7 **Sulfur Content of Fuels (Rule 311).** The permittee shall not burn fuels with a sulfur content in excess of 0.5% (by weight) for liquid fuels and 796 ppmvd or 50 gr/100 scf (calculated as H₂S) for gaseous fuel. Compliance with this condition shall be based on annual hydrogen sulfide and total sulfur content measurements of the LFG using ASTM methods or other District-approved methods, and diesel and propane fuel billing records or other data showing the certified sulfur content for each shipment. [*Ref: District Rule 311*]

- B.8 **Organic Solvents (Rule 317).** The permittee shall comply with the emission standards listed in Section B of Rule 317. Compliance with this condition shall be based on the permittee's compliance with the Condition 9.C.6 in this permit. [*Ref: District Rule 317*]
- B.9 **Solvent Cleaning Operations (Rule 321).** The permittee shall comply with the operating requirement, equipment requirements and emission control requirements for all solvent cleaning subject to this Rule. Compliance shall be based on District inspection of operations and with the Condition 9.C.6 in this permit. [*Ref: District Rule 321*]
- B.10 **Metal Surface Coating Thinner and Reducer (Rule 322).** The use of photochemically reactive solvents as thinners or reducers in metal surface coatings is prohibited. Compliance with this condition shall be based on the Condition 9.C.6 in this permit and facility inspections. [*Ref: District Rule 322*]
- B.11 **Architectural Coatings (Rule 323).** The permittee shall comply with the emission standards listed in Section D of Rule 323 as well as the Administrative requirements listed in Section F of Rule 323. Compliance with this condition shall be based on the Condition 9.C.6 in this permit and facility inspections. [*Ref: District Rule 323*]
- B.12 **Disposal and Evaporation of Solvents (Rule 324).** The permittee shall not dispose through atmospheric evaporation more than one and a half gallons of any photochemically reactive solvent per day. Compliance with this condition shall be based on the Condition 9.C.6 in this permit and facility inspections. [*Ref: District Rule 324*]
- B.13 **Adhesives and Sealants (Rule 353).** The permittee shall not use adhesives, adhesive bonding primers, adhesive primers, sealants, sealant primers, or any other primers, unless the permittee comply with the following:
- a. Such materials used are purchased or supplied by the manufacturer or suppliers in containers of 16 fluid ounces or less; or alternately
 - b. When the permittee use such materials from containers larger than 16 fluid ounces and the materials are not exempt by Rule 353, Section B.1, the total ROC emissions from the use of such material shall not exceed 200 pounds per year unless the substances used and the operational methods comply with Sections D, E, F, G, and H of Rule 353. Compliance shall be demonstrated by recordkeeping in accordance with Section B.2 and/or Section O of Rule 353. [*Ref: District Rule 353*]
- B.14 **Breakdowns (Rule 505).** The permittee shall promptly report: (a) breakdowns that result in violations of emission limitations or restrictions prescribed by District Rules or by this permit, or (b) any in-stack, continuous monitoring equipment breakdowns; such reporting shall be made in conformance with the requirements of Rule 505, Sections A, B.1 and D. [*Ref: District Rule 505*]
- B.15 **CARB Registered Portable Equipment.** State registered portable equipment shall comply with State registration requirements. A copy of the State registration shall be readily available whenever the equipment is at the facility. [*Ref: District Rule 202*]

9.C Requirements and Equipment Specific Conditions

C.1 **Landfill.** The following equipment items are included in this emissions category:

District Device No.	Name
114827	Municipal Solid Waste Landfill

- a. **Emission Limits:** Mass emissions from the landfill shall not exceed the limits listed in Table 5.1-1. Compliance with this condition shall be based on the operational, monitoring, recordkeeping, and reporting conditions in this permit. In addition, the following specific emission limits apply:
- i. **Instantaneous Landfill Surface Emissions:** Except as provided in Conditions [9.C.1.a.iii](#) (*Construction Activities & Landfill Working Face*), [9.C.1.a.iv](#) (*Well Raising*), and [9.C.2.a.vi](#) (*Repairs and Temporary Shutdown of LFG Collection System Components*) or as otherwise specified in a District-approved GCCS Design Plan or Alternative Compliance Option, no location on the landfill surface may exceed a methane concentration of 500 ppmv, other than non-repeatable, momentary readings, as determined by the instantaneous surface emissions monitoring requirements of Conditions [9.C.1.c.i](#) (*Instantaneous Surface Monitoring*). [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95465(a)(1) and §95468; 40 CFR §62.1100(b)(7)]
 - ii. **Integrated Landfill Surface Emissions:** Except as provided in Conditions [9.C.1.a.iii](#) (*Construction Activities & Landfill Working Face*), [9.C.1.a.iv](#) (*Well Raising*), and [9.C.2.a.vi](#) (*Repairs and Temporary Shutdown of LFG Collection System Components*) or as otherwise specified in an District-approved GCCS Design Plan or Alternative Compliance Option, no location on the landfill surface may exceed an average methane concentration of 25 ppmv as determined by integrated surface emissions monitoring requirements of Conditions [9.C.1.c.ii](#) (*Integrated Surface Monitoring*). [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95465(a)(2) and §95464(a)(1)(C); 40 CFR §62.1100(b)(7)]
 - iii. **Construction Activities & Landfill Working Face:** The requirements of Condition [9.C.1.a.i](#) (*Instantaneous Landfill Surface Emissions*) and [9.C.1.a.ii](#) (*Integrated Landfill Surface Emissions*) do not apply to the working face of the landfill or to areas of the landfill surface where the landfill cover material has been removed and refuse has been exposed for the purpose of installing, expanding, replacing, or repairing components of the LFG, leachate, or gas condensate collection and removal system, or for law enforcement activities requiring excavation. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95466(a); 40 CFR §62.1100(b)(7)]

- iv. *Well Raising*: The requirements of Condition [9.C.1.a.i](#) (*Instantaneous Landfill Surface Emissions*) and [9.C.1.a.ii](#) (*Integrated Landfill Surface Emissions*) do not apply to individual wells involved in well raising provided the following conditions are met:
 - 1. New fill is being added or compacted in the immediate vicinity around the well. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95464(d)(1); 40 CFR §62.1100(b)(7)]
 - 2. Once installed, an LFG collection well extension is sealed or capped until the raised well is reconnected to a vacuum source. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95464(d)(2); 40 CFR §62.1100(b)(7)]
- v. *Application Submittal*: If an ATC application to modify the facility's NMOC and ROC PTE is submitted within 30 days of the discovery of measured NMOC concentration exceeding 198 ppmv, the permittee will not be deemed to be out of compliance with the mass emissions specified in Table 5.1-1. NMOC sampling shall be conducted in accordance with EPA Method 25 or 25C as specified in 40 CFR §63.1959(a)(3) and Condition [9.C.1.c.xv.1](#). The results of Method 25 or 25C shall be divided by 6 to convert C_{NMOC} as carbon to C_{NMOC} as hexane. [Ref: District Rule 206; 40 CFR §63.1959(a)(3)(iii)]
- b. Operational Limits: The landfill is subject to the operational restriction listed below:
 - i. *Design Capacity*: The total amount of MSW placed in Lompoc Sanitary Landfill shall not exceed a maximum of 6.1 million m³. [Ref: PT-70/PTO 13563]
- c. Monitoring: The following monitoring conditions apply to the landfill:
 - i. *Instantaneous Surface Monitoring*: The permittee shall conduct instantaneous surface monitoring of the landfill surface on a quarterly basis unless the provisions identified in Condition [9.C.1.c.x](#) (*Instantaneous Monitoring Frequency*) have been fulfilled and monitoring is conducted on an annual basis. Any reading exceeding the 500 ppmv limit, as specified in Condition [9.C.1.a.i](#) (*Instantaneous Landfill Surface Emissions*) shall be recorded as an exceedance and the following actions shall be taken:
 - 1. *First Exceedance*: Corrective action shall be taken by the owner or operator such as, but not limited to, cover maintenance or repair, or well vacuum adjustments and the location shall be re-monitored within ten calendar days of a measured exceedance. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95469(a)(1)(B); 40 CFR §62.1100(b)(7)]
 - 2. *Second Exceedance*: If the re-monitoring of the location shows a second exceedance, additional corrective action shall be taken, and the location shall be re-monitored again no later than 10 calendar days after the second exceedance. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95469(a)(1)(B)1; 40 CFR §62.1100(b)(7)]

3. *Third Exceedance:* If the re-monitoring shows a third exceedance, the owner or operator shall install a new or replacement well as determined to achieve compliance no later than 120 calendar days after detecting the third exceedance or it is a violation of this permit. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95469(a)(1)(B)2; 40 CFR §62.1100(b)(7)]

A reading found by the permittee exceeding the limit of 500 ppmv as specified in Condition [9.C.1.a.i](#) (*Instantaneous Landfill Surface Emissions*) shall be recorded as an exceedance, but will not be considered a violation of this permit if the actions specified above are taken. A reading found by a District inspector during a compliance inspection exceeding the limit of 500 ppmv as specified in Condition [9.C.1.a.i](#) (*Instantaneous Landfill Surface Emissions*) shall be considered a violation of this permit unless the permittee had previously discovered the exceedance and is in the process of correcting the exceedance per the actions listed above. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95469(a)(1); CARB Implementation Guidance Document for the Regulation to Reduce Methane Emissions from Municipal Solid Waste Landfills. Section II, Subsection E, Question 2, Page II-13; 40 CFR §62.1100(b)(7)]

- ii. *Integrated Surface Monitoring:* The permittee shall conduct integrated surface monitoring of the landfill surface on a quarterly basis unless the provisions identified in Condition [9.C.1.c.xi](#) (*Integrated Monitoring Frequency*) have been fulfilled and monitoring is conducted on an annual basis. Any reading exceeding the 25 ppmv limit, as specified in [9.C.1.a.ii](#) (*Integrated Landfill Surface Emissions*) shall be recorded as an exceedance and the following actions shall be taken:
 1. *First Exceedance:* Corrective action shall be taken by the owner or operator such as, but not limited to, cover maintenance or repair, or well vacuum adjustments and the location shall be re-monitored within ten calendar days of a measured exceedance. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95469(a)(2)(B); 40 CFR §62.1100(b)(7)]
 2. *Second Exceedance:* If the re-monitoring of the location shows a second exceedance, additional corrective action shall be taken and the location shall be re-monitored again no later than 10 calendar days after the second exceedance. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95469(a)(2)(B)1; 40 CFR §62.1100(b)(7)]
 3. *Third Exceedance:* If the re-monitoring shows a third exceedance, the owner or operator shall install a new or replacement well as determined to achieve compliance no later than 120 calendar days after detecting the third exceedance or it is a violation of this permit. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95469(a)(2)(B)2; 40 CFR §62.1100(b)(7)]

A reading found by the permittee exceeding the limit of 25 ppmv as specified in Condition [9.C.1.a.ii](#) (*Integrated Landfill Surface Emissions*) shall be recorded as an exceedance, but will not be considered a violation of this permit if the actions specified above are taken. A reading found by a District inspector during a compliance inspection exceeding the limit of 25 ppmv as specified in Condition [9.C.1.a.ii](#) (*Integrated Landfill Surface Emissions*) shall be considered a violation of this permit unless the permittee had previously discovered the exceedance and is in the progress of correcting the exceedance per the actions listed above. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95469(a)(2); CARB Implementation Guidance Document for the Regulation to Reduce Methane Emissions from Municipal Solid Waste Landfills. Section II, Subsection E, Question 2, Page II-13; 40 CFR §62.1100(b)(7)]

- iii. *Instantaneous and Integrated Monitoring Spacing:* The permittee shall conduct instantaneous and integrated surface emissions monitoring in a walking pattern of no more than a 25-foot intervals. These intervals shall traverse each monitoring grid for both the instantaneous and integrated surface emissions monitoring. If the permittee has no exceedances of the limits after any four consecutive quarterly monitoring periods or can demonstrate that in the past three years that there were no measured exceedances of the limits, the walking pattern spacing may be increased to 100-foot intervals. The permittee shall submit an updated *SMMR Plan* prior to the implementation of any spacing increase. The permittee shall return to a 25-foot spacing interval upon any exceedances of the limits specified in Condition [9.C.1.a.i](#) (*Instantaneous Landfill Surface Emissions*) or [9.C.1.a.ii](#) (*Integrated Landfill Surface Emissions*) that cannot be remediated within ten calendar days or upon any exceedances detected during a compliance inspection. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95471(c)(1)(B); 40 CFR §62.1100(b)(7)]
- iv. *Instantaneous and Integrated Monitoring Grids:* The permittee shall monitor the landfill surface based on a topographic map of the landfill drawn to scale. This map shall divide the entire landfill surface into individually identified 50,000 square foot grids with the location of the grids and the LFG collection system clearly marked and identified. The grids shall be used for instantaneous and integrated surface emissions monitoring. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95471(c)(1); 40 CFR §62.1100(b)(7)]
- v. *Instantaneous and Integrated Monitoring Areas:* The landfill surface areas with cover penetrations, distressed vegetation, cracks or seeps shall also be inspected visually and with a hydrocarbon detector. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95471(c)(2)(D); 40 CFR §62.1100(b)(7)]

- vi. *Portable Analyzer Calibration Requirements:* The portable analyzer used for the instantaneous surface emission monitoring and integrated surface emission monitoring shall adhere to the following requirements [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95471(a); 40 CFR 62.1100(b)(7)]:
 - 1. *Calibration Method:* The portable analyzer shall meet the calibration, performance, and instrument specifications provided in EPA Method 21, except that methane shall replace all references to VOC. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95471(a); CCR Subchapter 10, Article 4, Subarticle 6 §95471(a)(1); 40 CFR 62.1100(b)(7)]
 - 2. *Calibration Gas:* The calibration gas shall be methane. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95471(a)(2); 40 CFR 62.1100(b)(7)]
- vii. *Probe Height from Ground:* The hydrocarbon detector's probe inlet shall be placed within three inches of the landfill surface while conducting instantaneous surface emission monitoring and integrated surface emission monitoring. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95471(c)(1)(A); 40 CFR 62.1100(b)(7)]
- viii. *Wind Speeds:* Instantaneous surface emission monitoring and integrated surface emission monitoring shall be terminated when the average wind speed exceeds five miles per hour or the instantaneous wind speed exceeds ten miles per hour. Average wind speed shall be determined in fifteen-minute intervals using an on-site anemometer with a continuous recorder for the entire duration of the monitoring event. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95471(c)(1)(C); 40 CFR 62.1100(b)(7)]
- ix. *Meteorological Conditions:* Instantaneous surface emission monitoring and integrated surface emission monitoring shall be conducted only when there has been no measurable precipitation in the preceding 72 hours. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95471(c)(1)(D); 40 CFR 62.1100(b)(7)]
- x. *Instantaneous Monitoring Frequency:* Any closed or inactive landfill, or any closed or inactive areas on an active landfill that have no instantaneous surface monitoring exceedances of the permitted limits, found by a District inspector or the permittee, after four consecutive quarterly monitoring periods may be monitored annually. The permittee shall submit an updated *SMMR Plan* prior to the implementation of any monitoring frequency changes. Any exceedances of the permitted limits specified in Condition [9.C.1.a.i](#) (*Instantaneous Landfill Surface Emissions*) during the annual monitoring that cannot be remediated within ten calendar days will result in a return to quarterly integrated surface monitoring of the landfill. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95469(a)(1)(C); CCR Subchapter 10, Article 4, Subarticle 6 §95469(a)(1)(D); CARB Implementation Guidance Document for the Regulation to Reduce Methane Emissions from Municipal Solid Waste Landfills. Section II, Subsection E, Question 2, Page II-13; 40 CFR 62.1100(b)(7)]

- xi. *Integrated Monitoring Frequency:* Any closed or inactive areas on the landfill that have no integrated surface monitoring exceedances of the permitted limits, found by a District inspector or the permittee, after four consecutive quarterly monitoring periods may be monitored annually. The permittee shall submit an updated *SMMR Plan* prior to the implementation of any monitoring frequency changes. Any exceedances of the permitted limits specified in Condition [9.C.1.a.ii](#) (*Integrated Landfill Surface Emissions*) during the annual monitoring that cannot be remediated within ten calendar days will result in a return to quarterly integrated surface monitoring of the landfill. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95469(a)(2)(C); CCR Subchapter 10, Article 4, Subarticle 6 §95469(a)(2)(D); CARB Implementation Guidance Document for the Regulation to Reduce Methane Emissions from Municipal Solid Waste Landfills. Section II, Subsection E, Question 2, Page II-13; 40 CFR 62.1100(b)(7)]
- xii. *Waste Values:* The permittee shall monitor current amount of solid waste-in-place and the year-by-year waste acceptance rate. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95470(a)(1)(F); 40 CFR 62.1100(b)(7)]
- xiii. *Asbestos and Non-Degradable Waste:* The permittee shall monitor the nature, date of deposition, amount, and location of asbestos-containing or non-degradable waste for any landfill areas excluded from the collection system, as well as any nonproductive areas excluded from collection. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95470(a)(1)(G); 40 CFR 62.1100(b)(7)]
- xiv. *Calibration and Maintenance Logs:* Calibration and maintenance of the portable analyzers shall be maintained, including the results of each calibration. [Ref: ATC 14708]
- xv. *NMOC Emission Rate Monitoring and Calculation:* The permittee shall calculate the annual NMOC emission rate using the equations and procedures provided in 40 CFR Subpart AAAA § 63.1959(a). The NMOC calculation must be updated annually using actual waste acceptance rates for the preceding calendar year and current waste-in-place totals. [40 CFR Subpart AAAA § 63.1959(a)]
 - 1. *NMOC Tier 2 Sampling:* The landfill owner or operator must determine the site-specific NMOC concentration using the following sampling procedure. The landfill owner or operator must install at least two sample probes per hectare, evenly distributed over the landfill surface that has retained waste for at least 2 years. If the landfill is larger than 25 hectares in area, only 50 samples are required. The probes should be evenly distributed across the sample area. The sample probes should be located to avoid known areas of nondegradable solid waste. The owner or operator must collect and analyze one sample of landfill gas from each probe to determine the NMOC concentration using EPA Method 25 or 25C of appendix A-7 to part 60. Taking composite samples from different probes into a single cylinder is allowed; however, equal sample volumes must be taken from each probe. For each composite, the sampling rate, collection times, beginning and ending cylinder vacuums, or alternative volume measurements must be recorded to verify that composite volumes are equal. Composite sample volumes should not be

less than one liter unless evidence can be provided to substantiate the accuracy of smaller volumes. Terminate compositing before the cylinder approaches ambient pressure where measurement accuracy diminishes. If more than the required number of samples are taken, all samples must be used in the analysis. The landfill owner or operator must divide the NMOC concentration from EPA Method 25 or 25C of appendix A-7 to part 60 by 6 to convert from CNMOC as carbon to CNMOC as hexane. If the landfill has an active or passive gas removal system in place, EPA Method 25 or 25C samples may be collected from these systems instead of surface probes provided the removal system can be shown to provide sampling as representative as the two sampling probe per hectare requirement. For active collection systems, samples may be collected from the common header pipe. The sample location on the common header pipe shall be before any gas moving, condensate removal, or treatment system equipment. For active collection systems, a minimum of three samples shall be collected from the header pipe.

[Ref: 40 CFR Subpart AAAA §63.1959(a)(3)]

2. *NMOC Tier 2 Retesting:* The site-specific NMOC concentration shall be retested at least every five years using the methods specified in Condition 9.C.1.c.xv.1. The annual LFG sampling required by Condition 9.C.10.a satisfies this requirement.

[Ref: 40 CFR Subpart AAAA §63.1959(a)(3)(iii)]

- d. Recordkeeping: The following records for the landfill shall be maintained by the permittee and shall be made available to the District upon request:

- i. *Instantaneous Surface Emissions Monitoring Recordkeeping:*

1. For all Instantaneous Surface Emission readings in excess of 200 ppmv but less than or equal to 500 ppmv, the permittee shall record the concentration in ppmv, date, time, and location of the reading.

[Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95470(a)(1)(D); 40 CFR §62.1100(b)(7)]

2. For all Instantaneous Surface Emission readings in excess of 500 ppmv, the permittee shall record the concentration in ppmv, date, time, and location of the reading, identify the reading as an exceedance and record the following additional information: [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95470(a)(1)(D); 40 CFR §62.1100(b)(7)]

- a. A description of the corrective action(s) and the date each corrective action was taken to repair the leak as a result of measured exceedances over 500 ppmv.

- b. The concentration, date, time and location of all re-monitoring events that took place for each location with a measured concentration greater than 500 ppmv and whether the re-monitoring event showed compliance.

- c. For any re-monitoring events that show a third exceedance of the 500 ppmv leak limit during a quarterly monitoring event, the permittee shall also record whether a new or replacement well was installed and whether the well was installed within 120 calendar days of the third exceedance.
 3. Wind speed during all instantaneous surface sampling, including all re-monitoring events. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95470(a)(1)(D); 40 CFR §62.1100(b)(7)]
- ii. *Integrated Surface Emissions Monitoring Recordkeeping:*
 1. The concentration, date, time, and location of the affected grid of each integrated monitoring reading in excess of 25 ppmv (measured as methane). [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95471(c)(3)(B); 40 CFR 62.1100(b)(7)]
 2. The concentration of the re-monitoring events for each grid with a measured concentration greater than 25 ppmv and if the re-monitoring event showed compliance. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95471(c)(3)(B); 40 CFR 62.1100(b)(7)]
 3. Description of the corrective actions taken to repair the leaks as a result of measured exceedances and dates of repair. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95471(c)(3)(B); 40 CFR 62.1100(b)(7)]
 4. Wind speed during all integrated surface sampling including re-monitoring events. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95471(c)(3)(C); 40 CFR 62.1100(b)(7)]
- iii. *Flow Rate:* The expected gas generation flow rate determined as prescribed in the 2006 Intergovernmental Panel on Climate Change (IPCC) Guidelines for National Greenhouse Gas Inventories, Chapter 3 using a recovery rate of 75 percent. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95470(a)(1)(C); 40 CFR 62.1100(b)(7)]
- iv. *Waste Values:* The current amount of solid waste in-place and the year-by-year waste acceptance rate. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95470(a)(1)(F); 40 CFR 62.1100(b)(7)]
- v. *Asbestos and Non-Degradable Waste:* Records detailing the nature, date of deposition, amount, and location of asbestos-containing or non-degradable waste excluded from the collection system as well as any nonproductive areas excluded from the collection system. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95470(a)(1)(G); 40 CFR 62.1100(b)(7)]
- vi. *Landfill Information:* MSW landfill name, owner and operator, address, solid waste information system (SWIS) identification number, and status (active, inactive, closed). [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95470(b)(3)(A); 40 CFR 62.1100(b)(7)]

- vii. *Calibration and Maintenance:* Records of calibration and maintenance of the portable analyzers, including the results of each calibration. [Ref: ATC 14708]
- viii. *NMOC Emission Rate Recordkeeping:* The permittee shall maintain the following records on-site in a readily accessible format for a period of at least five (5) years and make them available to the District upon request:
 - a. Maximum design capacity, current waste-in-place mass, and annual waste acceptance records. [Ref: 40 CFR Subpart AAAA § 63.1983(a)]
 - b. All data, calculations, site-specific sampling reports (e.g., Tier 2 test results), and measurements used to estimate annual or 5-year NMOC emission rates. [Ref: 40 CFR Subpart AAAA § 63.1983(b)]
- e. Reporting: On a semi-annual basis, a report detailing the previous six months' activities shall be provided to the District. The report must list all data required by Condition [9.C.8](#) of this permit.

C.2 **Landfill Gas Collection System.** The following equipment items are included in this emissions category:

District Device No.	Name
390237	Landfill Gas Collection Wells
390241	Landfill Gas Collection Piping
390238	Landfill Gas Blowers

- a. Operational Limits: The LFG collection system equipment permitted herein is subject to the following operational restrictions listed below:
 - i. *Positive Pressure Components:* The permittee shall operate the LFG collection system so that there are no LFG leaks that exceed 500 ppmv, measured as methane, at any component under positive pressure. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95464(b)(1)(B); 40 CFR 62.1100(b)(7)]
 - ii. *Gas Collection System Design:* The gas collection and control system shall be designed to handle the expected gas generation flow rate from the entire area of the MSW landfill and to collect gas at an extraction rate to comply with the surface methane emission limits in Condition [9.C.1.a.i](#) (*Instantaneous Landfill Surface Emissions*) and [9.C.1.a.ii](#) (*Integrated Landfill Surface Emissions*). [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95464(a)(1)(F); 40 CFR 62.1100(b)(7)]
 - iii. *Routing of the LFG:* Route all the collected LFG to a gas control device and operate the LFG collection and control system continuously except during well raising activities as defined by Condition [9.C.1.a.iv](#) (*Well Raising*) as well as repairs and temporary shutdown of gas collection system components as defined by Condition [9.C.2.a.vi](#) (*Repairs and Temporary Shutdown of LFG Collection System Components*). [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95464(b)(1)(A); 40 CFR 62.1100(b)(7)]

- iv. *Wellhead Gauge Pressure Requirement:* Each wellhead shall be operated under a vacuum (negative pressure) except during the following allowances:
1. Well raising activities as defined by Condition [9.C.1.a.iv](#) (*Well Raising*) are occurring for the well.
 2. Repairs and temporary shutdown of gas collection system components are occurring as defined by Condition [9.C.2.a.vi](#) (*Repairs and Temporary Shutdown of LFG Collection System Components*).
 3. When using a geomembrane or synthetic cover which has acceptable pressure limits for the wellhead included in the approved design plan.
 4. When the well has been decommissioned.

[Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95464(c); 40 CFR §62.1100(b)(7)]

- v. *Subpart OOO Wellhead Temperature:* Operate each interior wellhead in the collection system with an LFG temperature less than 55 °C (131°F); The permittee may establish a higher operating temperature value at a particular well. A higher operating value demonstration shall be submitted to the EPA Administrator for approval and shall include supporting data demonstrating that the elevated parameter neither causes fires nor significantly inhibits anaerobic decomposition by killing methanogens. The demonstration shall satisfy both criteria in order to be approved. [Ref: 40 CFR Subpart OOO §62.16716(c)]

- vi. *Repairs and Temporary Shutdown of LFG Collection System Components:* The requirements of Conditions [9.C.1.a.i](#) (*Instantaneous Landfill Surface Emissions*), [9.C.1.a.ii](#) (*Integrated Landfill Surface Emissions*), [9.C.2.a.i](#) (*Positive Pressure Components*), [9.C.2.a.iii](#) (*Routing of the LFG*), [9.C.2.a.iv](#) (*Wellhead Gauge Pressure Requirement*) do not apply to individual LFG collection system components that must be temporarily shut down to repair the components due to catastrophic events such as earthquakes, to connect new LFG collection system components to the existing system, to extinguish landfill fires, or to perform construction activities pursuant to Condition [9.C.1.a.iii](#) (*Construction Activities & Landfill Working Face*), provided the following requirements are met:

1. Any new LFG collection system components required to maintain compliance with this permit shall be included in the most recent Design Plan. The existing Design Plan must be amended to include any necessary updates or addenda, and shall be certified by a professional engineer. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95464(e)(1); CCR Subchapter 10, Article 4, Subarticle 6 §95464(a)(4); 40 CFR §62.1100(b)(7)]
2. Methane emissions are minimized during shutdown in accordance with industry-wide accepted practices. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95464(e)(2); 40 CFR §62.1100(b)(7)]

- b. Monitoring: The following monitoring conditions apply to the LFG collection system equipment:
- i. *Positive Pressure Components*: Components containing LFG and under positive pressure shall be monitored quarterly for leaks using a portable analyzer meeting the requirements of Condition [9.C.1.c.vi](#) (*Portable Analyzer Calibration Requirements*). Any component leak shall be tagged and repaired within ten calendar days. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95469(b)(3); 40 CFR 62.1100(b)(7)]
 - ii. *LFG Collected*: The annual volume (in units of scf) of LFG collected shall be monitored. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95470(b)(3)(B); 40 CFR 62.1100(b)(7)]
 - iii. *Wellhead Pressure*: Monitor each individual wellhead monthly to determine the gauge pressure. If there is any positive pressure reading except during well raising activities as defined by Condition [9.C.1.a.iv](#) (*Well Raising*) or repairs and temporary shutdown of gas collection system components as defined by Condition [9.C.2.a.vi](#) (*Repairs and Temporary Shutdown of LFG Collection System Components*), the permittee shall take the following actions: [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95469(c); 40 CFR 62.1100(b)(7)]
 1. *Initial Corrective Action*: The permittee shall initiate corrective action within five calendar days of the positive pressure measurement. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95469(c)(1); 40 CFR 62.1100(b)(7)]
 2. *Further Corrective Actions*: If the problem cannot be corrected within fifteen calendar days of the date the positive pressure was first measured, the permittee must initiate further action, including, but not limited to, any necessary expansion of the gas collection system, to mitigate any positive pressure readings. Corrective actions, including any expansion of the gas collection and control system, must be completed and any new wells must be operating within 120 calendar days of the date the positive pressure was first measured. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95469(c)(2); CCR Subchapter 10, Article 4, Subarticle 6 §95469(c)(3); 40 CFR 62.1100(b)(7)]
 - a. If corrective action is expected to take longer than 120 days to complete after the initial exceedance, the permittee shall:
 - i. Submit a deviation report to the District (engr@sbcapcd.org) for any corrective actions that take more than 120 days to complete. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95469(c)(3); 40 CFR 62.1100(b)(7)]

- iv. *Subpart OOO Wellhead Temperature:* Each well shall be monitored monthly for temperature. The temperature measuring device shall be calibrated annually using the procedure in 40 CFR part 60, Appendix A-1, EPA Method 2, Section 10.3. If a well exceeds 55 °C (131°F) the permittee shall take the following actions: [Ref: 40 CFR Subpart OOO §62.16720(a)(4)]
1. *Initial Corrective Action:* The permittee shall initiate corrective action within five calendar days of the measured exceedance. Any attempted corrective measure shall not cause exceedances of other operational or performance standards. [Ref: 40 CFR Subpart OOO §62.16720(a)(4)]
 2. *Further Corrective Actions:*
 - a. If a correction of the exceedance cannot be achieved within fifteen calendar days of the first temperature exceedance measurement, the permittee shall:
 - i. Conduct a root cause analysis and correct the exceedance as soon as practicable, but no later than 60 days after the exceedance was first measured. [Ref: 40 CFR Subpart OOO §62.16720(a)(4)(i)]
 - ii. Maintain records in accordance with Condition [9.C.2.c.x.1](#) (*Wellhead Temperature Root Cause Analysis Records*). [Ref: 40 CFR Subpart OOO §62.16726(e)(5)]
 - b. If corrective actions cannot be fully implemented within 60 days following the measurement of the initial landfill gas temperature exceedance for which the root cause analysis was required, the permittee shall also:
 - i. Conduct a corrective action analysis and develop an implementation schedule to complete the corrective action(s) as soon as practicable, but no more than 120 days after the exceedance was first measured. [Ref: 40 CFR Subpart OOO §62.16720(a)(4)(ii)]
 - ii. Submit a notification to the EPA Administrator as soon as practicable but no later than 75 days after the initial temperature exceedance measurement. [Ref: 40 CFR Subpart OOO §62.16724(k)(2)]
 - iii. Maintain records in accordance with Condition [9.C.2.c.x.2](#) (*Wellhead Temperature Root Cause Analysis Records*). [Ref: 40 CFR Subpart OOO §62.16726(e)(5)]

- c. If corrective action is expected to take longer than 120 days to complete following the initial temperature exceedance measurement, the permittee shall:
 - i. Submit the root cause analysis, corrective action analysis, plan for corrective action and corresponding implementation timelines to the EPA Administrator for approval as soon as practicable but no later than 75 days after the initial temperature exceedance measurement. [Ref: 40 CFR Subpart OOO §62.16720(a)(4)(iii), 40 CFR Subpart OOO §62.16724(k)(1)]
 - ii. Maintain records in accordance with Condition [9.C.2.c.x.3](#) (*Wellhead Temperature Root Cause Analysis Records*). [Ref: 40 CFR Subpart OOO §62.16726(e)(5)]
- v. *Wellhead Nitrogen or Oxygen:* Each well shall be monitored monthly for nitrogen or oxygen concentration. [Ref: 40 CFR Subpart OOO §62.16722(a)(2)]
 - 1. *Nitrogen:* The nitrogen level shall be determined using EPA Method 3C of Appendix A-2 of 40 CFR Part 60, unless an alternative test method has been approved by the EPA Administrator. [Ref: 40 CFR Subpart OOO §62.16722(a)(2)(i)]
 - 2. *Oxygen:* Unless an alternative test method has been approved by the EPA Administrator, the oxygen level shall be determined by an oxygen meter using EPA Method 3A of Appendix A-2 of 40 CFR Part 60, EPA Method 3C of Appendix A-2 of 40 CFR Part 60, or ASTM D6522-11, except that: [Ref: 40 CFR Subpart OOO §62.16722(a)(2)(ii)]
 - a. The span shall be set between 10% and 12% oxygen;
 - b. A data recorder is not required;
 - c. Only two calibration gases are required, a zero and span;
 - d. A calibration error check is not required;
 - e. The allowable sample bias, zero drift, and calibration drift are $\pm 10\%$.
 - 2. *Oxygen Alternative:* A portable gas composition analyzer may be used to monitor the oxygen levels provided: [Ref: 40 CFR Subpart OOO §62.16722(a)(2)(iii)]
 - a. The analyzer is calibrated.
 - b. The analyzer meets all quality assurance and quality control requirements for EPA Method 3A or ASTM D6522-11.

- vi. *Construction Activities:* The permittee shall maintain a log of construction activities at the landfill including a description of the actions being taken, the areas of the MSW landfill that will be affected by these actions, the reason the actions are required, any LFG collection system components that will be affected by these actions, and if these construction activities are part of an LFG collection system expansion. This log shall also include the construction start and finish dates, projected equipment installation dates, and projected shut down times for individual LFG collection system components; and a description of the mitigation measures taken to minimize methane emissions and other potential air quality impacts. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95470(a)(1)(J); 40 CFR 62.1100(b)(7)]
 - vii. *Downtimes:* Date and duration of all periods when the entire collection system is not operating in excess of five days, including individual well shutdown and disconnection times, and the reason for the downtime. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95470(a)(1)(A); 40 CFR 62.1100(b)(7)]
 - viii. *Well Installations:* The permittee shall maintain a log of installation dates and location of each well installed as part of a gas collection system expansion. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95470(a)(1)(D); 40 CFR 62.1100(b)(7)]
 - ix. *Quarterly LFG Sampling:* On a quarterly basis, a sample of the LFG shall be extracted downstream of the collection system blower and analyzed for methane (% by volume) and CO₂ (% by volume) using a District approved portable gas analyzer or appropriate ASTM method. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95470(b)(3)(C); 40 CFR 62.1100(b)(7)]
 - x. *Calibration and Maintenance Logs:* Calibration and maintenance of the LFG collection system's monitoring devices and meters shall be maintained, including the results of each calibration.
- c. Recordkeeping: The following records for the LFG collection system equipment shall be maintained by the permittee and shall be made available to the District upon request:
- i. *Positive Pressure Components:* Results of the quarterly inspections for components containing LFG and under positive pressure. The permittee shall record the dates of the inspections, concentration of any components exceeding the permitted limit, description of any corrective actions taken, and dates of the corrective actions. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95469(b)(3); 40 CFR 62.1100(b)(7)]
 - ii. *LFG Collected:* The annual volume of collected LFG (in units of scf). [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95470(b)(3)(B); 40 CFR 62.1100(b)(7)]
 - iii. *Wellhead Gauge Pressure:* Records of any positive wellhead gauge pressure measurements, the date of the measurements, the well identification number, and the corrective action taken. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95470(a)(1)(E); 40 CFR 62.1100(b)(7)]

- iv. *Construction Activities:* Records of any construction activities including a description of the actions being taken, the areas of the MSW landfill that will be affected by these actions, the reason the actions are required, any LFG collection system components that will be affected by these actions, and if these construction activities are part of an LFG collection system expansion. Construction start and finish dates, projected equipment installation dates, and projected shut down times for individual LFG collection system components; and a description of the mitigation measures taken to minimize methane emissions and other potential air quality impacts. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95470(a)(1)(J); 40 CFR 62.1100(b)(7)]
- v. *Downtimes:* Periods when the entire collection system is not operating in excess of five days, including individual well shutdown and disconnection times, and the reason for the downtime. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95470(a)(1)(A); 40 CFR 62.1100(b)(7)]
- vi. *Well Installations:* Installation dates and location of each well installed as part of a gas collection system expansion. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95470(a)(1)(D); 40 CFR 62.1100(b)(7)]
- vii. *Quarterly LFG Sampling:* Results of the quarterly measurements of the LFG for methane (% by volume) and CO₂ (% by volume). [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95470(b)(3)(C); 40 CFR 62.1100(b)(7)]
- viii. *Plot Map:* Most recent topographic map of the site showing the areas with final cover and a geomembrane and the areas with final cover without a geomembrane with corresponding percentages over the landfill surface, each existing and planned collector in the system, and providing a unique identification location label for each collector [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95470(b)(3)(I); 40 CFR 62.1100(b)(7)]
- ix. *Wellhead Temperature:* Records of the monthly measurements of wellhead temperature including the dates of the measurements and if the wellhead temperature exceeded 55 °C (131 °F). [Ref: 40 CFR Subpart OOO §62.16726(e)(2)]
- x. *Wellhead Temperature Root Cause Analysis Records:* For any wellhead temperature root cause analysis listed below for which corrective actions are required, the permittee shall maintain the following records: [Ref: 40 CFR Subpart OOO §62.16726(e)(5)]
 - 1. For any Root Cause Analysis for which corrective actions are required by Condition [9.C.2.b.iv.2.a](#):
 - a. Keep a record of the root cause analysis conducted, including a description of the recommended corrective action(s) taken, and the date(s) the corrective action(s) were completed.

2. For any Root Cause Analysis for which corrective actions are required by Condition [9.C.2.b.iv.2.b](#):
 - a. Keep a record of the root cause analysis conducted, the corrective action analysis, the date for corrective action(s) already completed following the high temperature reading, and, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates.
3. For any Root Cause Analysis for which corrective actions are required by Condition [9.C.2.b.iv.2.c](#):
 - a. Keep a record of the root cause analysis conducted, the corrective action analysis, the date for corrective action(s) already completed following the high temperature reading, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates, and a copy of any comments or final approval on the corrective action analysis or schedule from the EPA Administrator.
- xi. *Wellhead Nitrogen or Oxygen*: Records of the monthly measurements of wellhead nitrogen or oxygen concentration including the dates of the measurements and whether the nitrogen level was at or above 20% or the oxygen level at or above 5% . [Ref: 40 CFR Subpart OOO §62.16726(e)(2)]
- xii. *Calibration and Maintenance*: Records of calibration and maintenance of the LFG collection system's monitoring devices and meters, including the results of each calibration. [Ref: ATC 14708]
- d. Reporting: On a semi-annual basis, a report detailing the previous six months' activities shall be provided to the District. The report must list all data required by Condition [9.C.8](#) of this permit.

C.3 **Enclosed Flare.** The following equipment items are included in this emissions category:

District Device No.	Name
390236	Enclosed Flare

- a. Emission Limits: Mass emissions from the enclosed flare shall not exceed the limits listed in Table 5.2-3. Compliance with this condition shall be based on the operational, monitoring, recordkeeping, reporting, and source testing conditions in this permit. In addition, the following specific emission limits apply:
 - i. *Oxides of Nitrogen (NO_x) Emission Limits*: Emissions of NO_x (as NO₂) from the enclosed flare shall not exceed a stack concentration of 47 ppmv at 3% O₂ or a stack emission rate of 0.060 lb/MMBtu. Compliance with this condition shall be based on the source testing condition of this permit. [Ref: ATC 14708]

- ii. *Reactive Organic Compounds Emission Limits:* Emissions of ROC from the enclosed flare shall not exceed a stack concentration of 20 ppmvd at 3% O₂ (as hexane) or a stack emission rate of 0.048 lb/MMBtu. Compliance with this condition shall be based on the source testing condition of this permit. [Ref: ATC 14708]
 - iii. *Carbon Monoxide Emission Limits:* Emissions of CO from the enclosed flare shall not exceed a stack concentration of 256 ppmvd at 3% O₂ or a stack emission rate of 0.200 lb/MMBtu. Compliance with this condition shall be based on the source testing condition of this permit. [Ref: ATC 14708]
 - iv. *LMR Methane Control Requirements:* The enclosed flare shall reduce methane by 99 percent by weight. Compliance with this condition shall be based on the source testing condition of this permit. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95464(b)(2)(A)1; 40 CFR 62.1100(b)(7)]
- b. Operational Limits: The enclosed flare permitted herein are subject to the following operational restrictions listed below:
- i. *Heat Input Limits:* The hourly, daily, and annual heat input limits to the enclosed flare shall not exceed the values listed below. These limits are based on the design rating of the enclosed flare. Compliance with heat input limits shall be based on the fuel meter readings and the most recent gas analysis. [Ref: ATC 14708]
- | | |
|-------------------|-------------------------------|
| Hourly Heat Input | <u>12.010</u> MMBtu/hour |
| Daily Heat Input | <u>288.240</u> MMBtu/day |
| Annual Heat Input | <u>105,207.600</u> MMBtu/year |
- ii. *Fuel Type Limit:* The enclosed flare shall only combust LFG and propane. [Ref: ATC 14708]
 - iii. *LFG Sulfur Content:* The total sulfur content (calculated as H₂S at standard conditions, 60 °F and 14.7 psia) of the LFG burned in the enclosed flare shall not exceed 260 ppmvd. [Ref: ATC 14708]
 - iv. *Propane Pilot Gas:* Propane shall be used as the enclosed flare's pilot fuel gas. The propane shall meet Gas Processors Association or HD-5 specifications for propane and shall have a total sulfur content no greater than 15 gr/100 scf (239 ppmv). Compliance with this condition shall be based on the listed sulfur content of each fuel shipment as certified in the fuel suppliers billing vouchers. [Ref: ATC 14708]
 - v. *Flame Present:* A flame shall be present at all times combustible gases are routed to the enclosed flare. [Ref: ATC 14708]
 - vi. *Visible Emissions:* The enclosed flare shall not emit visible emissions as dark or darker than 20 percent opacity for a period or periods aggregating more than three minutes in any one hour. [Ref: District Rule 302]

- vii. *Condensate Injection:* Condensate injected into the enclosed flare for destruction shall not exceed 130 gallons per day. [Ref: ATC 14708]
 - viii. *Flare Operational Temperature:* The enclosed flare shall be operated within the parameter ranges established during the most recent source test. Except for startup and shutdown periods, the enclosed flare combustion temperature shall not operate less than 28 °C (or 50° F) below the average combustion temperature during the most recent source test for any three-hour block monitoring period. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95470(a)(1)(K)1; 40 CFR 62.1100(b)(7)]
 - ix. *Venting:* During restart or startup of the enclosed flare, there shall be a sufficient flow of propane to the burner to prevent unburned collected LFG from being emitted to the atmosphere. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95464(b)(2)(A)3; 40 CFR 62.1100(b)(7)]
 - x. *Positive Pressure Components:* The permittee shall operate the enclosed flare so that there are no LFG leaks that exceeds 500 ppmv, measured as methane, at any component under positive pressure. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95464(b)(1)(B); 40 CFR 62.1100(b)(7)]
 - xi. *Flare Features:* The enclosed flare shall be equipped with automatic dampers, an automatic shutdown device, and a flame arrester. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95464(b)(2)(A)2; 40 CFR 62.1100(b)(7)]
- c. Monitoring: The following monitoring conditions apply to the enclosed flare:
- i. *LFG Volume:* The permittee shall monitor the daily and annual volume of LFG combusted in the enclosed flare (in units of scf). The enclosed flare shall be equipped with at least one dedicated District-approved gas flow measuring device, which records the flow to the device at least every 15 minutes. The gas flow measuring device shall be installed, calibrated, maintained, and operated according to the manufacturer's specifications. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95469(b)(1)(B); 40 CFR 62.1100(b)(7)]
 - ii. *Operational Temperature:* The enclosed flare combustion temperature data shall be monitored at least every fifteen minutes with a District-approved thermocouple, which has an accuracy of plus or minus (±) 1 percent of the temperature being measured expressed in degrees Celsius or Fahrenheit and equipped with an electronic or other District-approved data recorder. This equipment shall be installed, calibrated, maintained, and operated according to the manufacturer's specifications. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95469(b)(1); 40 CFR 62.1100(b)(7)]
 - iii. *Propane:* The volume of propane delivered and the date of each delivery shall be recorded. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95470(b)(3)(G); 40 CFR 62.1100(b)(7)]

- iv. *Downtime:* For all enclosed flare downtimes in excess of one hour, monitor the reason for the downtime and the length of time enclosed flare was shutdown. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95470(a)(1)(B); 40 CFR 62.1100(b)(7)]
- v. *Positive Pressure Components:* Components containing LFG and under positive pressure shall be monitored quarterly for leaks using a portable analyzer meeting the requirements of Condition [9.C.1.c.vi](#) (*Portable Analyzer Calibration Requirements*). Any component leak shall be tagged and repaired within ten calendar days. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95469(b)(3); 40 CFR 62.1100(b)(7)]
- vi. *Source Testing:* The permittee shall perform annual source testing of the emissions and process parameters listed in Table 4.3. The permittee shall adhere to the requirements of Condition [9.C.10](#). [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95464(b)(4); 40 CFR 62.1100(b)(7)]
- vii. *Flare Flame:* The presence of a flame in the enclosed flare shall be continuously monitored by a flame detector or equivalent device that detects the presence of a pilot flame. [Ref: ATC 14708]
- viii. *LFG Sampling:* On an annual basis, a sample of the LFG shall be extracted downstream of the collection system blowers and analyzed for total sulfur content (ppmv), hydrogen sulfide (ppmv), and HHV (Btu/scf) using appropriate ASTM sampling and analysis techniques. If any annual sulfur content measurement exceeds 208 ppmv, future sulfur content measurements shall be conducted on a quarterly basis. [Ref: ATC 14708]
- ix. *Visible Emissions:* Once per calendar quarter for the enclosed flare, the permittee shall perform a visible emissions inspection for a one-minute period while the enclosed flare is operating. If the enclosed flare does not operate during a calendar quarter, no monitoring is required. If visible emissions are detected from the enclosed flare during any inspection, then a USEPA Method 9 visible emissions evaluation (VEE) shall be performed immediately for a six-minute period for the flare. City of Lompoc staff or their consultant, certified in VEE, shall perform the VEE. A visible emissions inspection is not required for the enclosed flare if the flare did not burn LFG during the calendar quarter. [Ref: District Rule 302]
- x. *Calibration and Maintenance Logs:* Calibration and maintenance of the enclosed flare's monitoring devices and meters, including the results of each calibration. [Ref: ATC 14708]
- d. Recordkeeping: The following records for the enclosed flare shall be maintained by the permittee and shall be made available to the District upon request:
 - i. *LFG Volume:* Records of the daily and annual volume of LFG combusted in the enclosed flare (in units of scf). [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95469(b)(1)(B); 40 CFR 62.1100(b)(7)]

- ii. *Heat Input:* Records of the calculated daily heat input to the enclosed flare (in units of MMBtu/day) based on the LFG daily volume (scf/day) and most recently measured LFG HHV (Btu/scf). [Ref: PT-70/Reeval 14708-R1]
- iii. *Flare Operational Temperature:* All block three-hour periods of enclosed flare operation during which the average temperature difference was more than 28 °C (or 50° F) below the average combustion temperature during the most recent source test. Records shall include the flare set point temperature from the most recent source test and the date and time of any changes to the set point temperature. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95470(a)(1)(K)1; 40 CFR 62.1100(b)(7)]
- iv. *Propane:* Records of the date and volume of each propane delivery and the total volume delivered for the year. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95470(b)(3)(G); 40 CFR 62.1100(b)(7)]
- v. *Downtime:* All enclosed flare downtimes in excess of one hour, the reason for the downtime, and the length of time the enclosed flare was shutdown. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95470(a)(1)(B); 40 CFR 62.1100(b)(7)]
- vi. *Positive Pressure Components:* Results of the quarterly inspections for components containing LFG and under positive pressure. The permittee shall record the dates of the inspections, concentration of any components exceeding the permitted limit, description of any corrective actions taken, and dates of the corrective actions. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95469(b)(3); 40 CFR 62.1100(b)(7)]
- vii. *Source Test Results:* Results of any source tests conducted, average combustion temperature measured at least every 15 minutes, and average temperature over the course of the source test. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95470(a)(1)(H); 40 CFR 62.1100(b)(7)]
- viii. *Control Device Parameters:* The permittee shall maintain the following records of each LFG control device: LFG control device type, year of installation, rating, fuel type, and the total amount of LFG combusted in the control device. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95470(b)(3)(D); 40 CFR 62.1100(b)(7)]
- ix. *Control Device Life Records:* The permittee shall maintain the following records, whether in paper, electronic, or other format, for the life of each LFG control device: the control device vendor specifications, expected gas generation flow rate, and percent reduction of methane achieved during the initial source test or compliance determination. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95470(a)(2); 40 CFR 62.1100(b)(7)]
- x. *Flare Flame:* The date and time whenever the flame detector indicates the loss of a flame in the enclosed flare, the corrective actions taken, and the date and time when the flare was restarted. [Ref: ATC 14708]

- xi. *LFG Sampling*: Results of the annual measurements of the LFG for total sulfur content (ppmv), hydrogen sulfide (ppmv), and HHV (Btu/scf). [Ref: ATC 14708]
- xii. *Visible Emissions Monitoring*: Records of each quarterly inspection shall be maintained. The records shall include the date and time of each inspection, whether a Method 9 VEE was required and the opacity of any visible emissions detected. [Ref: District Rule 302]
- xiii. *Calibration and Maintenance*: Records of calibration and maintenance of the enclosed flare's monitoring devices and meters, including the results of each calibration. [Ref: ATC 14708]
- e. Reporting: On a semi-annual basis, a report detailing the previous six months' activities shall be provided to the District. The report must list all data required by Condition [9.C.8](#) of this permit.

C.4 **Condensate Management System.** The following equipment items are included in this emissions category:

District Device No.	Name
390240	Condensate Knockout

- a. Monitoring: The following monitoring conditions apply to the condensate management system equipment:
 - i. *Flared Condensate*: The volume (in units of gallons) of condensate combusted in the flare on a monthly and annual basis. [Ref: ATC 14708]
- b. Recordkeeping: The following records for the condensate management system equipment shall be maintained by the permittee and shall be made available to the District upon request:
 - i. *Flared Condensate*: The volume (in units of gallons) of condensate combusted in the flare on a monthly and annual basis. [Ref: ATC 14708]
- c. Reporting: On a semi-annual basis, a report detailing the previous six months' activities shall be provided to the District. The report must list all data required by Condition [9.C.8](#) of this permit.

C.5 **Waste Grinder Engine.** The following equipment is included in this emissions unit category:

District Device No.	Name
114674	Waste Grinder Engine

- a. Emission Limits: Mass emissions from the waste grinder engine shall not exceed the limits listed in Table 5.2-3. Compliance with this condition shall be based on the operational, monitoring, recordkeeping, reporting, and source testing conditions in this permit. In addition, the following specific emission limits apply:
 - i. *Rule 333 Emission Limits:* Emissions from the waste grinder engine shall not exceed a stack concentration of 700 ppmv NO_x at 15% O₂, 750 ppmv ROC at 15% O₂, and 4,500 ppmv CO at 15% O₂, as specified in District Rule 333. Compliance with these limits shall be based on portable analyzer monitoring and source testing of this engine. [Ref: ATC 13778]
 - ii. *Diesel PM Standard:* The diesel PM emission rate of the waste grinder engine shall be less than or equal to 0.01 g/bhp-hr (0.02 g/kW-hr) as specified in the ATCM for Stationary CI Engines. [Ref: ATC 13778; Stationary Compression Ignition Engines ATCM §93115.7(a)]
 - iii. *ATCM Emission Standards:* Emissions from the waste grinder engine shall not exceed 1.5 g/bhp-hr (2.0 g/kW-hr) for NO_x, 0.14 g/bhp-hr (0.19 g/kW-hr) for NMHC, and 2.6 g/bhp-hr (3.5 g/kW-hr) for CO, as specified in Table 4 of the ATCM for Stationary CI Engines for a new stationary prime diesel-fueled CI engine rated 175 to 750 brake horsepower, model year 2011 through 2013. [Ref: Stationary Compression Ignition Engines ATCM §93115.7(a), Table 4]
- b. Operational Limits: The waste grinder engine permitted herein are subject to the following operational restrictions listed below:
 - i. *Heat Input Limits:* The daily and annual heat input limits to the waste grinder engine shall not exceed the values listed below. These limits are based on the design rating of the engine. Compliance with heat input limits shall be based on an engine fuel consumption rate of 30.7 gallons per hour, 8 hours of operation per day, and 1,000 hours of operations per year. [Ref: ATC 13778]

Daily Heat Input	<u>33.647</u> MMBtu/day
Annual Heat Input	<u>4,205.900</u> MMBtu/year
 - ii. *Hours of Operation:* The waste grinder engine subject to this permit shall not be operated for more than 8 hours per day and 1,000 hours per year. [Ref: ATC 13778]
 - iii. *Fuel and Fuel Additive Requirements:* The permittee may only add fuel and/or fuel additives to the engine, or any fuel tank directly attached to the engine that comply with the ATCM. [Ref: ATC 13778; Stationary Compression Ignition Engines ATCM §93115.5(b)(5)]

- iv. *Diesel Fuel Sulfur Limit:* The total sulfur content of the diesel fuel used shall not exceed 15 ppmv. Compliance with this condition shall be based on Condition [9.C.5.c.iii](#) (*Diesel Fuel Sulfur Limit*).
[Ref: *Stationary Compression Ignition Engines ATCM §93115.5(a)*]
- c. Monitoring: The following monitoring conditions apply to the waste grinder engine:
 - i. *Non-Resettable Hour Meter:* The waste grinder engine subject to this permit shall have installed a non-resettable hour meter with a minimum display capability of 9,999 hours, unless the District has determined (in writing) that a non-resettable hour meter with a different minimum display capability is appropriate in consideration of the historical use of the engine and the permittee's compliance history. [Ref: *ATC 13778; Stationary Compression Ignition Engines ATCM §93115.10(d)(1)*]
 - ii. *Fuel Usage Metering:* The volume of diesel (in units of gallons) combusted in the waste grinder engine shall be based on the actual hours of operation and the manufacturer specified engine fuel use rate at 100% load of 30.7 gallons per hour. A log shall be maintained that records the fuel usage of the engine.
[Ref: *ATC 13778*]
 - iii. *Diesel Fuel Sulfur Limit:* The diesel fuel total sulfur content shall be based on the fuel vendor's diesel fuel analysis, or documentation that each fuel shipment met CARB Clean Diesel requirements. Alternately, the permittee shall annually sample and perform a fuel total sulfur analysis consistent with appropriate ASTM procedures. [Ref: *ATC 13778; Stationary Compression Ignition Engines ATCM §93115.10(f)(1)(H)(1)*]
 - iv. *Portable Analyzer Monitoring:* The permittee shall perform portable analyzer NO_x and CO monitoring during each calendar quarter in which a source test is not performed and the engine operates in excess of 20 hours. The compliance procedures outlined in Section F.3 of Rule 333 shall be followed for the portable analyzer monitoring. Portable analyzer instrument readings shall not exceed the District Rule 333 emission limits specified in Condition 9.C.5.a.i of this permit. Following the portable analyzer testing, permittee shall determine if the results of the portable analyzer testing trigger a source test per the requirements of Condition [9.C.10.b](#). [Ref: *ATC 13778*]
 - v. *Visual Leak Check:* The permittee shall perform a visual check of each exhaust system every 200 hours of operation to check for signs of exhaust leaks, such as evidence of soot. The components to be checked include the piping, fittings, clamps, and gaskets. Corrective action shall be taken within 24 hours of when leaks are found. [Ref: *ATC 13778*]
 - vi. *Source Testing:* If required, the permittee shall perform source testing of the emissions and process parameters listed in Table 4.4. The permittee shall adhere to the requirements of Condition [9.C.10](#). [Ref: *ATC 13778*]

- d. Recordkeeping: The following records for the waste grinder engine shall be maintained by the permittee and shall be made available to the District upon request:
- i. *Operating Hours*: A log shall be maintained that details the number of hours that the waste grinder engine operated each day and total number of operational days per month. In addition, the cumulative total annual hours shall be recorded. [Ref: ATC 13778]
 - ii. *Fuel Use*: The total amount of diesel fuel combusted in the waste grinder engine shall be recorded on a monthly and annual basis (in units of gallons). [Ref: ATC 13778]
 - iii. *Diesel Fuel Purchase*: Fuel purchase records that demonstrate that only fuel meeting the requirements of the ATCM is purchased and added to the waste grinder engine, or to any fuel tank directly attached to the waste grinder engine. [Ref: ATC 13778; Stationary Compression Ignition Engines ATCM §93115.5(a)(6)]
 - iv. *Portable Analyzer Monitoring Results*: The permittee shall record the results of the quarterly portable analyzer monitoring. [Ref: ATC 13778]
 - v. *Engine Inspection and Maintenance Logs*: Engine inspection and maintenance logs shall be maintained, including quarterly inspection results. A visual leak check form must be included as part of the engine inspection and maintenance logs. [Ref: ATC 13778]
 - vi. *Source Test Results*: Results of any source tests conducted. [Ref: ATC 13778]
- e. Reporting: On a semi-annual basis, a report detailing the previous six months' activities shall be provided to the District. The report must list all data required by Condition [9.C.8](#) of this permit.

C.6 **Solvent Usage**. The following equipment is included in this emissions unit category:

District Device No.	Name
114829	Solvent Usage

- a. Operational Limits: Use of solvents for cleaning, degreasing, thinning and reducing shall conform to the requirements of District Rules 317, 321 and 324. Compliance with these rules shall be assessed through compliance with the monitoring, recordkeeping and reporting conditions in this permit and facility inspections. In addition, the permittee shall comply with the following:
- i. *Containers*: Vessels or containers used for storing materials containing organic solvents shall be kept closed unless adding to or removing material from the vessel or container. [Ref: PT-70/PTO 13563]

- ii. *Materials:* All materials that have been soaked with cleanup solvents shall be stored, when not in use, in closed containers that are equipped with tight seals.
[Ref: PT-70/PTO 13563]
- iii. *Solvent Leaks:* Solvent leaks shall be minimized to the maximum extent feasible or the solvent shall be removed to a sealed container and the equipment taken out of service until repaired. A solvent leak is defined as either the flow of three liquid drops per minute or a discernable continuous flow of solvent.
[Ref: PT-70/PTO 13563]
- b. Recordkeeping: The permittee shall record in a log the following on a monthly basis for each solvent used which is subject to Rule 317, 321 or 324: amount used; purpose for its use; the percentage of ROC by weight (as applied); the solvent density; whether the solvent is photochemically reactive; and, the resulting emissions of ROC to the atmosphere in units of pounds per month and the resulting emissions of photochemically reactive solvents to the atmosphere in units of pounds per month. Product sheets (Material Safety Data Sheet {MSDS} or equivalent) detailing the constituents of all solvents shall be maintained in a readily accessible location at the landfill facility.
[Ref: PT-70/PTO 13563]
- c. Reporting: On a semi-annual basis, a report detailing the previous six months' activities shall be provided to the District. The report must list all data required by Condition [9.C.8](#) of this permit.

C.7 **Recordkeeping.** All records and logs required by this permit and any applicable District, state or federal rule or regulation shall be maintained for a minimum of five calendar years from the date of information collection and log entry at the facility unless otherwise noted in a permit condition. These records or logs shall be readily accessible and be made available to the District upon request. Copies of records and reports required by Subpart OOO that are maintained offsite shall be retrievable within four hours. Copies of records and reports required by the California Methane Regulation shall be maintained for at least five years, whether in paper, electronic, or other format, and provide them to the District within five business days upon request. These records and reports must be kept at a location within the State of California.
[Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95470(a)(3); 40 CFR §62.1115(b)(2); 40 CFR 62.1100(b)(7)]

C.8 **Compliance Verification Reports.** Twice a year, the permittee shall submit a CVR to the District. Each report shall be used to verify compliance with the prior two calendar quarters. The first report shall cover calendar quarters 1 and 2 (January through June) and shall be submitted no later than September 1st. The second report shall cover calendar quarters 3 and 4 (July through December) and shall be submitted no later than March 1st. Each report shall contain information necessary to verify compliance with the emission limits and other requirements of this permit. These reports shall be in a format approved by the District. All logs and other basic source data not included in the report shall be available to the District upon request. The second report shall also include an annual report summarizing the activities for the calendar year. Pursuant to Rule 212, a completed *District Annual Emissions Inventory* questionnaire shall be included in the annual report or submitted electronically via the District website. The report shall include the following information:

a. Landfill:

i. *Instantaneous Surface Emissions Monitoring Recordkeeping:*

1. The concentration, date, time, and location of each instantaneous monitoring reading in excess of 200 ppmv (measured as methane). [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95470(a)(1)(D); 40 CFR 62.1100(b)(7)]
2. The concentration of the re-monitoring events for each location with a measured concentration greater than 500 ppmv and if the re-monitoring event showed compliance. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95470(a)(1)(D); 40 CFR 62.1100(b)(7)]
3. Description of the corrective actions taken to repair the leaks as a result of measured exceedances, and dates of repair. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95470(a)(1)(D); 40 CFR 62.1100(b)(7)]
4. Wind speed during instantaneous surface sampling. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95470(a)(1)(D); 40 CFR 62.1100(b)(7)]
5. Installation date and location of each well installed as part of a gas collection system expansion. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95470(a)(1)(D); 40 CFR 62.1100(b)(7)]

ii. *Integrated Surface Emissions Monitoring Recordkeeping:*

1. The concentration, date, time, and location of the affected grid of each integrated monitoring reading in excess of 25 ppmv (measured as methane). [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95471(c)(3)(B); 40 CFR 62.1100(b)(7)]
2. The concentration of the re-monitoring events for each grid with a measured concentration greater than 25 ppmv and if the re-monitoring event showed compliance. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95471(c)(3)(B); 40 CFR 62.1100(b)(7)]

3. Description of the corrective actions taken to repair the leaks as a result of measured exceedances, and dates of repair. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95471(c)(3)(B); 40 CFR 62.1100(b)(7)]
 4. Wind speed during integrated surface sampling.
[Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95471(c)(3)(C); 40 CFR 62.1100(b)(7)]
- iii. *Flow Rate:* The expected gas generation flow rate determined as prescribed in the 2006 Intergovernmental Panel on Climate Change (IPCC) Guidelines for National Greenhouse Gas Inventories, Chapter 3 using a recovery rate of 75 percent. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95470(a)(1)(C) and §95470(b)(3)(J); 40 CFR 62.1100(b)(7)]
 - iv. *Waste Values:* The current amount of solid waste in-place and the year-by-year waste acceptance rate in units of tons. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95470(a)(1)(F); 40 CFR 62.1100(b)(7)]
 - v. *Asbestos and Non-Degradable Waste:* Records detailing the nature, date of deposition, amount, and location of asbestos-containing or non-degradable waste excluded from collection as well as any nonproductive areas excluded from the collection system. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95470(a)(1)(G); 40 CFR 62.1100(b)(7)]
 - vi. *Landfill Information:* MSW landfill name, owner and operator, address, solid waste information system (SWIS) identification number, and status (active, inactive, closed). [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95470(b)(3)(A); 40 CFR 62.1100(b)(7)]
 - vii. *Calibration and Maintenance:* Records of calibration and maintenance of the portable analyzers, including the results of each calibration.
 - viii. *Annual NMOC Emission Rate Report:* The permittee shall recalculate the uncontrolled NMOC mass emission rate annually in accordance with Condition [9.C.1.c.xv](#) and shall submit an NMOC emission rate report to the USEPA Administrator annually. The report shall contain the estimated NMOC emission rate and all data, calculations, sample reports and measurements used to derive it. The report shall be submitted electronically to the USEPA via the Compliance and Emissions Data Reporting Interface (CEDRI), accessed through the USEPA Central Data Exchange, and a copy shall be submitted to the District with the second half CVR.
[Ref: 40 CFR Subpart AAAAA §63.1959(a)(3)(iii); §63.1981(c); §63.1981(l)(2)]

b. Landfill Gas Collection System:

- i. *Positive Pressure Components:* Results of the quarterly inspections for components containing LFG and under positive pressure. The permittee shall record the dates of the inspections, concentration of any components exceeding the permitted limit, description of any corrective actions taken, and dates of the corrective actions. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95469(b)(3); 40 CFR 62.1100(b)(7)]
- ii. *LFG Collected:* The annual volume of collected LFG (in units of scf). [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95470(b)(3)(B); 40 CFR 62.1100(b)(7)]
- iii. *Wellhead Gauge Pressure:*
 1. Records of any positive wellhead gauge pressure measurements including the dates of the measurements. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95470(a)(1)(E); 40 CFR 62.1100(b)(7)]
 2. Location and well identification number of gauge pressure exceedances including the dates and results of re-monitoring events. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95470(a)(1)(E); 40 CFR 62.1100(b)(7)]
- iv. *Wellhead Temperature:* Records of the monthly measurements of wellhead temperature including the dates of the measurements and if the wellhead temperature exceeded 55 °C (131 °F). [Ref: 40 CFR Subpart OOO §62.16726(e)(2)]
- v. *Wellhead Temperature Corrective Action Analysis:* For any corrective action analysis for which corrective actions are required in Condition [9.C.2.b.iv.2](#) and that take more than 60 days to correct the exceedance, submit the following records annually and semi-annually: [Ref: 40 CFR Subpart OOO §62.16726(e)(5); District Rule 206]
 1. the root cause analysis conducted, including a description of the recommended corrective action(s),
 2. the date for corrective action(s) already completed following the positive pressure or high temperature reading,
 3. and, for action(s) not already completed, a schedule for implementation, including proposed commencement and completion dates.
- vi. *Wellhead Nitrogen or Oxygen:* Records of the monthly measurements of wellhead nitrogen or oxygen concentration including the dates of the measurements and if the wellhead nitrogen level was at or above 20% or the oxygen level at or above 5%. [Ref: 40 CFR Subpart OOO §62.16726(e)(2)]

- vii. *Construction Activities:* Records of any construction activities including a description of the actions being taken, the areas of the MSW landfill that will be affected by these actions, the reason the actions are required, any LFG collection system components that will be affected by these actions, and if these construction activities are part of a LFG collection system expansion. The log of construction start and finish dates, projected equipment installation dates, and projected shut down times for individual LFG collection system components; and a description of the mitigation measures taken to minimize methane emissions and other potential air quality impacts. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95470(a)(1)(J); 40 CFR 62.1100(b)(7)]
- viii. *Downtimes:* Periods when the entire collection system is not operating in excess of five days, including individual well shutdown and disconnection times, and the reason for the downtime. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95470(a)(1)(A); 40 CFR 62.1100(b)(7)]
- ix. *Well Installations:* Installation dates and location of each well installed as part of a gas collection system expansion. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95470(a)(1)(D); 40 CFR 62.1100(b)(7)]
- x. *Quarterly LFG Sampling:* Results of the quarterly measurements of the LFG for methane (percent by volume) and CO₂ (percent by volume). [Ref: ATC 14708; CCR Subchapter 10, Article 4, Subarticle 6 §95470(b)(3)(C); 40 CFR 62.1100(b)(7)]
- xi. *Plot Map:* Most recent topographic map of the site showing the areas with final cover and a geomembrane and the areas with final cover without a geomembrane with corresponding percentages over the landfill surface, each existing and planned collector in the system, and providing a unique identification location label for each collector [Ref: ATC 14708; CCR Subchapter 10, Article 4, Subarticle 6 §95470(b)(3)(I); 40 CFR 62.1100(b)(7)]
- xii. *Collection System Installation and Operation:* The date that the gas collection system was installed and in full operation. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95470(b)(3)(E); 40 CFR 62.1100(b)(7)]
- xiii. *Gas Shipped Offsite:* The total volume of LFG shipped offsite, the composition of the landfill gas collected (reported in percent methane, and CO₂ by volume), and the recipient of the gas. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95470(b)(3)(H); 40 CFR 62.1100(b)(7)]
- xiv. *Calibration and Maintenance:* Records of calibration and maintenance of the LFG collection system's monitoring devices and meters, including the results of each calibration. [Ref: ATC 14708]

c. Enclosed Flare:

- i. *LFG Volume:* Records of the daily and annual volume of LFG combusted in the enclosed flare (in units of scf). [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95469(b)(1)(B); 40 CFR 62.1100(b)(7)]
- ii. *Heat Input:* Records of the calculated daily heat input to the enclosed flare (in units of MMBtu/day) based on the LFG daily volume (scf/day) and most recently measured LFG HHV (Btu/scf). [Ref: PT-70/Reeval 14708-R1]
- iii. *Flare Operational Temperature:* All block three-hour periods of enclosed flare operation during which the average temperature difference was more than 28 °C (or 50° F) below the average combustion temperature during the most recent source test. Records shall include the flare set point temperature from the most recent source test and the date and time of any changes to the set point temperature. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95470(a)(1)(K)1; 40 CFR 62.1100(b)(7)]
- iv. *Propane:* Records of the date and volume of each propane delivery and the total volume delivered for the year. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95470(b)(3)(G); 40 CFR 62.1100(b)(7)]
- v. *Shutdown:* Records of all enclosed flare downtimes in excess of one hour, the reason for the downtime, and the length of time the enclosed flare was shutdown. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95470(a)(1)(B); 40 CFR 62.1100(b)(7)]
- vi. *Positive Pressure Components:* Results of the quarterly inspections for components containing LFG and under positive pressure. The permittee shall record the dates of the inspections, concentration of any components exceeding the permitted limit, description of any corrective actions taken, and dates of the corrective actions. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95469(b)(3); 40 CFR 62.1100(b)(7)]
- vii. *Source Test Results:* Results of any source tests conducted, average combustion temperature measured at least every 15 minutes, and average temperature over the course of the source test. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95470(a)(1)(H); 40 CFR 62.1100(b)(7)]
- viii. *Control Device Parameters:* The permittee shall maintain the following records of each LFG control device: LFG control device type, year of installation, rating, fuel type, and the total amount of LFG combusted in the control device. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95470(b)(3)(D); 40 CFR 62.1100(b)(7)]
- ix. *Control System Installation and Operation:* The date that each gas control system was installed and in full operation. [Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95470(b)(3)(E); 40 CFR 62.1100(b)(7)]

- x. *Flare Flame*: The date and time whenever the flame detector indicates the loss of a flame in the enclosed flare, the corrective actions taken, and the date and time when the flare was restarted. [Ref: ATC 14708]
- xi. *LFG Sampling*: Results of the annual measurements of the LFG for total sulfur content (ppmv), hydrogen sulfide (ppmv), and HHV (Btu/scf). [Ref: ATC 14708]
- xii. *Visible Emissions Monitoring*: Records of each quarterly inspection shall be maintained. The records shall include the date and time of each inspection, whether a Method 9 VEE was required and the opacity of any visible emissions detected. [Ref: District Rule 302]
- xiii. *Calibration and Maintenance*: Records of calibration and maintenance of the enclosed flare's monitoring devices and meters, including the results of each calibration. [Ref: ATC 14708]
- d. Condensate Management System:
 - i. *Flared Condensate*: The volume (in units of gallons) of condensate combusted in the flare on a monthly and annual basis. [Ref: ATC 14708]
- e. Waste Grinder Engine:
 - i. *Operating Hours*: Records of the daily and annual hours of waste grinder engine operation. [Ref: ATC 13778]
 - ii. *Fuel Use*: The total amount of diesel fuel combusted in the waste grinder engine on a monthly and annual basis (in units of gallons). [Ref: ATC 13778]
 - iii. *Diesel Fuel Purchase*: Fuel purchase records that demonstrate that only fuel meeting the requirements of the ATCM is purchased and added to the waste grinder engine, or to any fuel tank directly attached to the waste grinder engine. [Ref: ATC 13778; Stationary Compression Ignition Engines ATCM §93115.5(a)(6)]
 - iv. *Portable Analyzer Monitoring Results*: The results of the quarterly portable analyzer monitoring. [Ref: ATC 13778]
 - v. *Engine Inspection and Maintenance Logs*: Engine inspection and maintenance logs including quarterly inspection results. A visual leak check form must be included as part of the engine inspection and maintenance logs. [Ref: ATC 13778]
 - vi. *Source Test Results*: Results of any source tests conducted. [Ref: ATC 13778]

f. Solvent Usage:

- i. On a monthly basis: the amount of solvent used; the percentage of ROC by weight (as applied); the solvent density; the amount of solvent reclaimed; whether the solvent is photochemically reactive; and, the resulting emissions of ROC and photochemically reactive solvents to the atmosphere in units of pounds per month. [Ref: PT-70/PTO 13563]

g. General Reporting Requirements:

- i. *Breakdowns:* Breakdowns reported per Regulation V along with the excess emissions that accompanied each occurrence. [Ref: District Rule 505]
- ii. *Emissions Summary:* The quarterly criteria pollutant emissions from each permitted emission unit. In addition, the second half CVR shall include the annual criteria pollutant emissions from each permitted emission unit. [Ref: 40 CFR 70.6(c); District Rule 1303]

C.9 **Annual Landfill Methane Rule Report.** In addition to the required semi-annual reporting in Condition C.8, the permittee shall also submit under separate cover, a Landfill Methane Regulation Annual Report covering the periods of January 1 to December 31 to the District by March 1st of the following year containing the information listed below. These reports shall be submitted as an electronic PDF. All logs and other basic source data not included in the report shall be available to the District upon request. The annual compliance report shall include information:

- a. MSW landfill name, owner and operator, address, and solid waste information system (SWIS) identification number.
- b. Total volume of landfill gas collected (reported in standard cubic feet).
- c. Average composition of the landfill gas collected over the reporting period (reported in percent methane and percent carbon dioxide by volume).
- d. Gas control device type, year of installation, rating, fuel type, and total amount of landfill gas combusted in each control device.
- e. The date that the gas collection and control system was installed and in full operation.
- f. The percent methane destruction efficiency of each gas control device(s).
- g. Type and amount of supplemental fuels burned with the landfill gas in each device.
- h. Total volume of landfill gas shipped off-site, the composition of the landfill gas collected (reported in percent methane and percent carbon dioxide by volume), and the recipient of the gas.
- i. Most recent topographic map of the site showing the areas with final cover and a geomembrane and the areas with final cover without a geomembrane with corresponding percentages over the landfill surface.

- j. All gas collection system downtime exceeding five calendar days, including individual well shutdown and disconnection times, and the reason for the downtime.
- k. All gas control system downtime in excess of one hour, the reason for the downtime, and the length of time the gas control system was shutdown.
- l. Expected gas generation flow rate calculated pursuant to Condition [9.C.1.d.iii](#) (*Flow Rate*).
- m. Records of all instantaneous surface readings of 200 ppmv or greater; all exceedances of the limits in sections 95464(b)(1)(B) or 95465 of the Landfill Methane Regulation CCR Subchapter 10, Article 4 Subarticle 6 (LMR), including the location of the leak (or affected grid), leak concentration in ppmv, date and time of measurement, the action taken to repair the leak, date of repair, any required re-monitoring and the re-monitored concentration in ppmv, and wind speed during surface sampling; and the installation date and location of each well installed as part of a gas collection system expansion.
- n. Records of any positive wellhead gauge pressure measurements, the date of the measurements, the well identification number, and the corrective action taken.
- o. Annual solid waste acceptance rate and the current amount of waste-in-place.
- p. Results of any source tests conducted pursuant to section 95464(b)(4) of the LMR.
- q. Records of the equipment operating parameters specified to be monitored under sections 95469(b)(1) and 95469(b)(2) of the LMR as well as records for periods of operation during which the parameter boundaries established during the most recent source test are exceeded. The records shall include the following information:
 - i. For enclosed flares, all 3-hour periods of operation during which the average temperature difference was more than 28 degrees Celsius (or 50 degrees Fahrenheit) below the average combustion temperature during the most recent source test at which compliance with sections 95464(b)(2) and 95464(b)(3)(A) of the LMR was determined.

C.10 Source Testing. The following source testing provisions shall apply:

- a. The permittee shall conduct annual enclosed flare source testing of air emissions and process parameters listed in Table 4.3 of this permit. More frequent source testing may be required if the equipment does not comply with permitted limitations or if other compliance problems, as determined by the District, occur. Source testing of the air emissions and process parameters listed in Table 4.3 shall be performed no later than 45 days after the anniversary date of the initial source test. September 11th shall be used as the anniversary date.

- b. The permittee shall conduct waste grinder engine source testing of NO_x, ROC, and CO if the result of a portable analyzer reading exceeds the threshold of 560 ppmv NO_x at 15% O₂ unless compliance with this threshold is demonstrated by a re-test within 15 days of the initial reading. A source test shall be conducted within 60 days of the initial threshold exceedance reading if triggered by this criteria. If source testing of the engine demonstrates compliance with the NO_x, ROC, and CO emission limits and standards of this permit, the engine shall not be subject to another source test for two years from the date of the initial compliant source test. After two years, source testing may again be triggered based on the result of a portable analyzer reading, unless compliance is demonstrated by a re-test within 15 days of the initial reading. If the engine does not demonstrate compliance with the NO_x, ROC, and CO emission limits specified in Table 4.4 of this permit in any source test, it shall be source tested every two years thereafter.
- c. If requested in writing by the District, the permittee shall conduct a waste grinder engine source test for PM per the requirements specified in Table 4.4 of this permit. The source test shall be conducted within 60 days of the written request. The source test may demonstrate compliance with the permitted PM emission limit directly by sampling at the outlet of each diesel particulate filter.
- d. The permittee shall submit a written source test plan to the District for approval at least thirty (30) days prior to initiation of each source test. The source test plan shall be prepared consistent with the District's *Source Test Procedures Manual* (revised May 1990 and any subsequent revisions). The permittee shall obtain written District approval of the source test plan prior to commencement of source testing. The District shall be notified at least ten (10) calendar days prior to the start of source testing activity to arrange for a mutually agreeable source test date when District personnel may observe the test.
- e. Source test results shall be submitted to the District within forty-five (45) calendar days following the date of source test completion and shall be consistent with the requirements approved within the source test plan. Source test results shall document the permittee's compliance status with BACT requirements, mass emission rates and applicable permit conditions, rules and NSPS (if applicable). All District costs associated with the review and approval of all plans and reports and the witnessing of tests shall be paid by the permittee as provided for by District Rule 210.
- f. A source test for an item of equipment shall be performed on the scheduled day of testing (the test day mutually agreed to) unless circumstances beyond the control of the operator prevent completion of the test on the scheduled day. Such circumstances include mechanical malfunction of the equipment to be tested, malfunction of the source test equipment, delays in source test contractor arrival and/or set-up, or unsafe conditions on site. Except in cases of an emergency, the operator shall seek and obtain District approval before deferring or discontinuing a scheduled test, or performing maintenance on the equipment item on the scheduled test day. If the test cannot be completed on the scheduled day, then the test shall be rescheduled for another time with prior authorization by the District. Once the sample probe has been inserted into the exhaust stream of the equipment unit to be tested (or extraction of the sample has begun), the test shall proceed in accordance with the approved source test plan. In no case shall a test run be aborted except in the case of an emergency or unless approval is first obtained from the District.

Failing to perform the source test of an equipment item on the scheduled test day without a valid reason and without District's authorization shall constitute a violation of this permit. If a test is postponed due to an emergency, written documentation of the emergency event shall be submitted to the District by the close of the business day following the scheduled test day.

The timelines in (a), (b), and (c) above may be extended for good cause provided a written request is submitted to the District at least three (3) days in advance of the deadline, and approval for the extension is granted by the District. [Ref: ATC 13778; ATC 14708]

- C.11 **BACT.** The permittee shall apply emission control technology and plant design measures that represent BACT to the operation of the equipment and facilities as described in this permit and the District's evaluation for this permit. Section 4.8 and Table 4.1 of this permit define the specific control technology and performance standard emission limits for BACT. BACT shall be in place, and shall be operational at all times, for the life of the project. BACT related monitoring, recordkeeping and reporting requirements are defined in those specific permit conditions. BACT related requirements are also defined in the source testing permit condition herein. [Ref: ATC 14708]
- C.12 **Process Stream Sampling and Analysis.** The permittee shall sample and analyze the process streams listed in Section 4.10.2 of this permit. All process stream samples shall be taken according to District approved methods by a third party (unless otherwise specified), and shall be analyzed within the time limits specified by the applicable sampling method from the time of collection. All sampling and analysis data/results shall be submitted to the District in accordance with Condition 9.C.8. All sampling and analysis shall be traceable by chain of custody procedures. [Ref: 40 CFR §70.6]
- C.13 **Process Monitor Calibration and Maintenance Plan.** All process monitoring devices listed in Section 4.9 of this permit shall be properly operated and maintained according to manufacturer recommended specifications. The permittee shall implement a District-approved *Process Monitor Calibration and Maintenance Plan* for the life of the project. [Ref: 40 CFR §70.6]
- C.14 **Surface Monitoring, Maintenance, and Recordkeeping Plan.** The permittee shall implement a *SMMR Plan* for the life of the project. This plan shall address the California Methane Emissions from Municipal Solid Waste Landfills regulation surface emissions monitoring requirements.
- C.15 **Active Collection System Design (ACSD) Plan.** The permittee shall implement an *ACSD Plan* for the life of the project. This plan shall address how the facility will comply with the requirements of 40 CFR Part 62 Subpart OOO and California Methane Emissions from Municipal Solid Waste Landfills regulation, as applicable. The *ACSD Plan* shall be updated and submitted to the District by a certified professional engineer for approval within 60 days of final permit issuance to address the new requirements from California Methane Emissions from Municipal Solid Waste Landfills.

The *ACSD Plan* shall be amended or updated when a modification to the gas collection and control system is made. Modifications subject to a plan amendment or update include, but not limited to, changes to well density (i.e., number of wells per acre) due to the installation or removal of wells, installation of a blower, or replacement of a control device. Regular maintenance or well replacement do not require a plan update or amendment. An amended or updated *ACSD Plan* shall be submitted to the District by a certified professional engineer within 90 days of modification completion.

[Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95464(a)(4); CCR Subchapter 10, Article 4, Subarticle 6 §95464(a)(5); CCR Subchapter 10, Article 4, Subarticle 6 §95464(e)(1), Implementation Guidance Document for the Regulation to Reduce Methane Emissions from Municipal Solid Waste Landfill, Page II-8, #7; 40 CFR 62.1100(b)(7)]

- C.16 **Documents Incorporated by Reference.** The documents listed below, including any District-approved updates thereof, are incorporated herein and shall have the full force and effect of a permit condition. These documents shall be implemented for the life of the project:
- a. *Process Monitor Calibration and Maintenance Plan* (approved July 10, 2017)
 - b. *Surface Monitoring Maintenance and Recordkeeping (SMMR) Plan* (approved July 10, 2017)
 - c. *Active Collection System Design (ACSD) Plan* (to be updated)
 - d. *Rule 333 Inspection and Maintenance Plan* (approved October 24, 2014)
- C.17 **Equipment Removal Report.** The permittee shall submit an equipment removal report to the District 30 days prior to removal or cessation of operation of control equipment.
[Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95470(b)(2); 40 CFR 62.1100(b)(7)]
- C.18 **Closure Report.** The permittee shall submit a closure report to the District within 30 days of cessation of waste acceptance.
[Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95470(b)(1); 40 CFR 62.1100(b)(7)]

9.D District and State Conditions

The following section lists permit conditions that are not enforceable by the USEPA or the public. However, these conditions are enforceable by the District and the State of California. These conditions are issued pursuant to District Rule 206 (Conditional Approval of Authority to Construct or Permit to Operate), which states that the Control Officer may issue an operating permit subject to specified conditions. Permit conditions have been determined as being necessary for this permit to ensure that operation of the facility complies with all applicable local and state air quality rules, regulations and laws. Failure to comply with any condition specified pursuant to the provisions of Rule 206 shall be a violation of that rule, this permit, as well as any applicable section of the California Health and Safety Code.

- D.1 **Odorous Organic Sulfides.** The permittee shall not discharge into atmosphere H₂S and organic sulfides that result in ground-level impact beyond the facility property boundary in excess of either 0.06 ppmv averaged over 3 minutes and 0.03 ppmv averaged over 1 hour.
[Ref: District Rule 310]
- D.2 **Temporary Engine Replacements - DICE ATCM.** Any reciprocating internal combustion engine subject to this permit and the stationary diesel ATCM may be temporarily replaced only if the requirements (a – h) listed herein are satisfied.
- a. The permitted engine that is being temporarily replaced is in need of routine repair or maintenance.
 - b. The permitted engine does not have a cracked block, unless the block will be replaced under manufacturer's warranty.
 - c. Replacement parts are available for the permitted engine.
 - d. The permitted engine is returned to its original service within 180 days of installation of the temporary engine.
 - e. The temporary replacement engine has the same or lower manufacturer rated horsepower and same or lower potential to emit of each pollutant as the permitted engine. At the written request of the permittee, the District may approve a replacement engine with a larger rated horsepower if the proposed temporary engine has manufacturer guaranteed emissions (for a brand new engine) or source test data (for a previously used engine) less than or equal to the permitted engine.
 - f. The temporary replacement engine shall comply with all rules and permit requirements that apply to the permitted engine.
 - g. For each permitted engine to be temporarily replaced, the permittee shall submit a completed *Temporary IC Engine Replacement Notification* form (Form ENF-94) within 14 days of the temporary engine being installed. This form may be sent hardcopy, or can be e-mailed (e-mail: engr@sbcapcd.org) to the District (Attn: Engineering Supervisor).

- h. Within 14 days of returning the original permitted engine to service, the permittee shall submit a completed *Temporary IC Engine Replacement Report* form (Form ENF-95). This form may be sent hardcopy, or can be e-mailed (e-mail: engr@sbcapcd.org) to the District (Attn: Engineering Supervisor).

Any engine in temporary replacement service shall be immediately shut down if the District determines that the requirements of this condition have not been met. If the requirements of this condition are not met, the permittee must obtain an ATC before installing or operating a temporary replacement engine.

- D.3 **Annual Compliance Reporting.** In addition to its required semi-annual reporting, the permittee shall also submit an annual report to the District by March 1st of the following year containing the information listed below. These reports shall be in a format approved by the District, with one hard copy and one electronic PDF copy. All logs and other basic source data not included in the report shall be available to the District upon request. The annual compliance report shall include the following information:

- a. General Reporting Requirements:

- i. *Variances:* Variances obtained per Regulation V along with the excess emissions that accompanied each occurrence. [Ref: *District Rule 504; District Rule 506*]

- D.4 **Notification of Non-Compliance.** Owners or operators who have determined that they are operating their stationary diesel-fueled engine(s) in violation of the requirements specified in the ATCM shall notify the District immediately upon detection of the violation and shall be subject to District enforcement action.

- D.5 **Notification of Loss of Exemption.** Owners or operators of in-use stationary diesel-fueled CI engines, who are subject to an exemption specified in the ATCM from all or part of the requirements of the ATCM, shall notify the District immediately after they become aware that the exemption no longer applies and shall demonstrate compliance within 180 days after notifying the District.

- D.6 **Enrollment in a DRP/ISC - January 1, 2005.** Any stationary diesel IC engine rated over 50 bhp that enrolls for the first time in a Demand Response Program/Interruptible Service Contract (as defined in the ATCM) on or after January 1, 2005, shall first obtain a District Authority to Construct permit to ensure compliance with the emission control requirements and hour limitations governing ISC engines.

AIR POLLUTION CONTROL OFFICER

DATE

It is recommended that this permit be granted with the conditions as specified in the permit.

Agnieszka Letts
AQ Engineer/Technician

September 22, 2026
Date

Supervisor

Date

Notes:

- (a) This permit supersedes PT-70 14708 and PT-70 ADM 16562
- (b) Permit Triennial Reevaluation Due Date: September 2029

10.0 Attachments

10.1 *Equipment List*

10.2 *List of Exempt/Insignificant Emissions Units*

10.3 *IDS Database Emission Tables*

10.4 *Facility Map*

10.1 Equipment List

A PERMITTED EQUIPMENT

1 Municipal Solid Waste Landfill

<i>Device ID #</i>	114827	<i>Device Name</i>	Municipal Solid Waste Landfill
<i>Rated Heat Input</i>		<i>Physical Size</i>	
<i>Manufacturer</i>		<i>Operator ID</i>	
<i>Model</i>		<i>Serial Number</i>	
<i>Location Note</i>			
<i>Device</i>	115.4 acres, 6.1 million cubic meter design capacity, 2.60 million tons of		
<i>Description</i>	waste in place as of December 2025		

2 Landfill Gas Collection System

2.1 Landfill Gas Collection Wells

<i>Device ID #</i>	390237	<i>Device Name</i>	Landfill Gas Collection Wells
<i>Rated Heat Input</i>		<i>Physical Size</i>	42.00 Total Wells
<i>Manufacturer</i>		<i>Operator ID</i>	
<i>Model</i>		<i>Serial Number</i>	
<i>Location Note</i>	Distributed over the surface of the landfill.		
<i>Device</i>	42 wells (32 single casing and 10 dual casing) as of December 2021,		
<i>Description</i>	operated under negative pressure, installed in waste to extract landfill gas from the landfill, each well is connected to the landfill gas piping system, each well is equipped with a control valve, orifice plate, and sample ports to facilitate monitoring requirements		

2.2 Landfill Gas Collection Piping

<i>Device ID #</i>	390241	<i>Device Name</i>	Landfill Gas Collection Piping
<i>Rated Heat Input</i>		<i>Physical Size</i>	
<i>Manufacturer</i>		<i>Operator ID</i>	
<i>Model</i>		<i>Serial Number</i>	
<i>Location Note</i>			
<i>Device</i>	The piping links the collection wells to the skid-mounted system		
<i>Description</i>			

3 Skid-Mounted System

3.1 Condensate Knockout

<i>Device ID #</i>	390240	<i>Device Name</i>	Condensate Knockout
<i>Rated Heat Input</i>		<i>Physical Size</i>	50.00 Gallons
<i>Manufacturer</i>	LFG Specialties	<i>Operator ID</i>	KOP-103
<i>Model</i>	KOP-24	<i>Serial Number</i>	
<i>Location Note</i>	At entry of skid-mounted system, immediately upstream of landfill gas blowers		
<i>Device Description</i>	Sealed cylindrical shell filter housing with 10 micron stainless steel wire mesh demister pad to remove condensate from landfill gas		

3.2 Landfill Gas Blowers

<i>Device ID #</i>	390238	<i>Device Name</i>	Landfill Gas Blowers
<i>Rated Heat Input</i>		<i>Physical Size</i>	15.00 Horsepower (Electric Motor)
<i>Manufacturer</i>	Atlas Copco	<i>Operator ID</i>	PMP-108A, PMP-108B
<i>Model</i>	ZM5202	<i>Serial Number</i>	UTF127WE1, UTF127WD1
<i>Location Note</i>	Between the condensate knockout and the flare		
<i>Device Description</i>	Two direct drive blowers equipped with VFD, bearing vibration switches and thermocouples with high-temperature shutdown, to draw landfill gas collected from collection wells, compress, and discharge to the flare for combustion, each blower is sized for 0 - 400 scfm at 40" water column inlet vacuum and 15" water column discharge pressure		

4 Enclosed Flare

<i>Device ID #</i>	390236	<i>Device Name</i>	Enclosed Flare
<i>Rated Heat Input</i>	12.010 MMBtu/Hour	<i>Physical Size</i>	
<i>Manufacturer</i>	LFG Specialties	<i>Operator ID</i>	
<i>Model</i>	EF625I6	<i>Serial Number</i>	2541
<i>Location Note</i>	Immediately downstream of skid-mounted landfill gas blower system		
<i>Device Description</i>	Used to combust landfill gas and condensate, equipped with an automatic louver, automatic shutdown device, flame arrestor to prevent flashback, propane pilot, and thermocouples, dimensions: 6' diameter x 25' H		

5 Waste Grinder Engine

<i>Device ID #</i>	114674	<i>Device Name</i>	Waste Grinder Engine
<i>Rated Heat Input</i>		<i>Physical Size</i>	630.00 Brake Horsepower
<i>Manufacturer</i>	Caterpillar	<i>Operator ID</i>	
<i>Model</i>	C18	<i>Serial Number</i>	BDN00136
<i>Location Note</i>			
<i>Device Description</i>	Used to powers Morbark 3800 Wood Hog waste grinder, diesel-fired, EPA Tier 4 transitional, CARB Executive Order U-R-001-0415, BCPXL18.1HPA EPA engine family, 2011 model year		

6 Solvent Usage

<i>Device ID #</i>	114829	<i>Device Name</i>	Solvent Usage
<i>Rated Heat Input</i>		<i>Physical Size</i>	
<i>Manufacturer</i>		<i>Operator ID</i>	
<i>Model</i>		<i>Serial Number</i>	
<i>Location Note</i>			
<i>Device Description</i>	Non-wipe cleaning solvent use		

B EXEMPT EQUIPMENT**1 Used Oil Storage Tanks**

<i>Device ID #</i>	114828	<i>Device Name</i>	Used Oil Storage Tanks
<i>Rated Heat Input</i>		<i>Physical Size</i>	400.00 Gallons
<i>Manufacturer</i>		<i>Operator ID</i>	
<i>Model</i>		<i>Serial Number</i>	
<i>Part 70 Insig?</i>	No	<i>District Rule Exemption:</i> 202.V.3 Storage Of Lubricating Oils	
<i>Location Note</i>			
<i>Device Description</i>	Two tanks		

2 Propane Tanks

<i>Device ID #</i>	390242	<i>Device Name</i>	Propane Tanks
<i>Rated Heat Input</i>		<i>Physical Size</i>	5.00 Gallons
<i>Manufacturer Model</i>		<i>Operator ID Serial Number</i>	
<i>Part 70 Insig?</i>	No	<i>District Rule Exemption:</i>	202.V.8 Storage Of Liquefied/Compressed Gases
<i>Location Note</i>			
<i>Device Description</i>	Two tanks, each 5 gallons, equipped with overfill safety valve, level gauge, manifold piping with three-way selector valve, pressure regulator, supports, safety hold-downs, used for flare pilot		

3 Water Storage Tank

<i>Device ID #</i>	393005	<i>Device Name</i>	Water Storage Tank
<i>Rated Heat Input</i>		<i>Physical Size</i>	10,000.00 Gallons
<i>Manufacturer Model</i>		<i>Operator ID Serial Number</i>	
<i>Part 70 Insig?</i>	No	<i>District Rule Exemption:</i>	201.A No Potential To Emit Air Contaminants
<i>Location Note</i>			
<i>Device Description</i>			

10.2 *List of Exempt/Insignificant Emissions Units*

1. Solvent use (wipe cleaning only)
2. Two 400-gallon used oil storage tanks (Rule 202.V.3)
3. Two 5 gallon propane tanks (Rule 202.V.8)
4. 10,000 gallon water storage tank (Rule 201.A)

10.3 IDS Database Emission Tables

PERMIT POTENTIAL TO EMIT

	NO _x	ROC	CO	SO _x	PM	PM ₁₀	PM _{2.5}
lb/day	33.88	21.13	86.67	24.22	5.93	5.93	5.93
lb/hr							
TPQ							
TPY	4.19	3.67	12.33	4.41	1.06	1.06	1.06

FACILITY POTENTIAL TO EMIT

	NO _x	ROC	CO	SO _x	PM	PM ₁₀	PM _{2.5}
lb/day	33.88	21.13	86.67	24.22	5.93	5.93	5.93
lb/hr							
TPQ							
TPY	4.19	3.67	12.33	4.41	1.06	1.06	1.06

PERMIT FEDERAL POTENTIAL TO EMIT

	NO _x	ROC	CO	SO _x	PM	PM ₁₀	PM _{2.5}
lb/day	33.88	15.41	86.67	24.22	5.93	5.93	5.93
lb/hr							
TPQ							
TPY	4.19	2.62	12.33	4.41	1.06	1.06	1.06

STATIONARY SOURCE POTENTIAL TO EMIT

	NO _x	ROC	CO	SO _x	PM	PM ₁₀	PM _{2.5}
lb/day	33.88	21.13	86.67	24.22	5.93	5.93	5.93
lb/hr							
TPQ							
TPY	4.19	3.67	12.33	4.41	1.06	1.06	1.06

Notes:

- (1) Emissions in these tables are from IDS.
- (2) Because of rounding, values in these tables shown as 0.00 are less than 0.005, but greater than zero.

10.4 Facility Map

