air pollution control district
SANTA BARBARA COUNTY

DRAFT

PERMIT to OPERATE 10318-R4

and

PART 70 OPERATING PERMIT 10318

SANTA MARIA REGIONAL LANDFILL STATIONARY SOURCE
CITY OF SANTA MARIA LANDFILL

2065 EAST MAIN STREET
SANTA MARIA, CALIFORNIA

OWNER AND OPERATOR

City of Santa Maria

Santa Barbara County
Air Pollution Control District

May 2025

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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	Air 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_2S	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 Emissions 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	pounds 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, 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 fourth renewal of the Part 70 permit for the City of Santa Maria Landfill (CSML) 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 under the Federal Title I New Source Performance Standards (NSPS) and the District's Part 70 Operating Permit program (Title V).

CSML (SSID: 8713) is a Class III municipal solid waste (MSW) landfill (in accordance with CCR Title 27 §20260) owned and operated by the City of Santa Maria and includes a recycling and a 'household hazardous waste' collection program. 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 CSML, the regulatory agencies and the public to assess compliance.

This permitting action directly incorporates Permit to Operate (PTO) 15559 for a new air compressor and PTO 15730 for a new 51.600 MMBtu/hr enclosed ground flare and 279 bhp emergency standby diesel fired engine. ATC 15730, ATC Mod 15730 01, PTO 15160, ATC 15559, PTO Mod 10318-02, and Part 70 (PT-70)/Reeval 10318-R3 are superseded by this permit.

1.2 Stationary Source/Facility Overview

1.2.1 Stationary Source/Facility Overview: The City of Santa Maria Landfill (CSML) is located at 2065 East Main Street, Santa Maria, California. It is located on the south bank of Santa Maria River. An approximately 20-foot high flood control levee, designed and constructed by the Army Corp of Engineers, separates the landfill from the river. The majority of the land adjacent to the south and west of the landfill is used for agricultural purposes. CSML was established in the early 1950s to serve the Santa Maria Valley area population. The landfill is owned and operated by the City of Santa Maria. For District regulatory purposes, the facility location is in the Northern Zone of Santa Barbara County[a].

Landfill gas (LFG) generated in the subsurface landfill via anaerobic biological decomposition is collected onsite using a vapor extraction system and handled using a collection and transport system. Under standard operations, the gas is treated and sent offsite to the Marian Medical Center (SSID: 01793) located approximately two miles from the landfill. When the gas is not sent offsite to Marian Medical Center, it is combusted in one of two enclosed ground flares or in the onsite LFG-fired internal combustion engine powering an electrical generator. When the gas is flared, it is not treated.

The landfill, LFG collection system, and the enclosed ground flares are owned and operated by the City of Santa Maria and are included in this permit. The gas treatment system that processes the collected gas for subsequent sale or beneficial use, LFG-fired engine, and electrical generator are owned and operated separately by J&A Santa Maria, LLC and are permitted separately under PT-70/Reeval 13281-R1.

A stationary source is defined as "any building, structure, facility, or installation which emits or may emit any affected pollutant directly or as a fugitive emission." A facility includes all pollutant-emitting activities which:

- Belong to the same industrial grouping: The landfill produces LFG and J&A Santa Maria, LLC's gas treatment system treats the LFG. The two facilities belong to the same industrial grouping because they are part of a process using a common material.

- Are located on one or more contiguous or adjacent properties: The gas treatment system, electrical generator, LFG-fired engine, and enclosed ground flares are located at the landfill. The engines located at the Marian Medical Center, which is not contiguous or adjacent to the landfill, are not part of the same stationary source.

- Are under common ownership, operation, or control: J&A Santa Maria LLC's gas treatment system, electrical generator, and onsite IC engine are not under common ownership or control with CSML. However, the gas treatment system, electrical generator, and LFG-fired engine are under common operation with the landfill because operation of this equipment is dependent on the production of LFG.

This permit is for the following equipment and processes at the stationary source:

- Landfill: The generation of LFG resulting from anaerobic biological decomposition of organic matter deposited in a landfill.

[a] District Rule 102, Definition: "Northern Zone"

- LFG Collection System: A system consisting of vertical and horizontal collectors to collect LFG generated by refuse deposited in the CSML and piping to transport the collected gas to one of the two enclosed ground flares for combustion, or to a gas treatment system for treatment and compression.

- Enclosed Ground Flares: Collected LFG can be destroyed in one of the two enclosed ground flares through continuous combustion. The enclosed ground flares are used as backups for when the Marian Medical IC engines and the onsite electrical generator are out of service or if there is excess LFG production.

- Condensate and Leachate Management System: LFG condensate and leachate may be applied to a lined cell of the landfill equipped with a containment system in order to control dust or incinerated in one of the enclosed ground flares.

Equipment and processes permitted under PT-70/Reeval 13281-R1 are as follows:

- Electrical Generator: Treated LFG is used to power an onsite electrical generator, which provides electricity to the grid and is owned and operated by J&A Santa Maria, LLC. This generator consists of a 1,966 brake horsepower (bhp) IC engine and 1,426 kW electrical generator.

- Treatment System: The treatment system takes LFG from gas collection system and filters, compresses, then sends it either to the engines located at the Marian Medical Center or the LFG-fired engine located at the landfill.

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 PTO permits and applications for this facility:

PERMIT	FINAL ISSUED	PERMIT DESCRIPTION
ATC 9547	8/28/1996	Construction of a 10.500 million British Thermal Units (MMBtu/hr) ground level enclosed ground flare.
PTO 9547	10/16/1997	Operation of a 10.500 MMBtu/hr ground level enclosed ground flare.
ATC/PTO 10318	10/30/2000	Increase in the heat input rating of the flare to 13.500 MMBtu/hr, and an increase in the design rating of the HHV of the LFG from 330 Btu/scf to 450 Btu/scf.
PT-70/Reeval 10318-R1	7/1/2005	Permit reevaluation of facility.
ATC 12037	3/7/2007	Construction of a 20.000 MMBtu/hr flare, blower, condensate knockout, and associated controls. Existing 13.500 MMBtu/hr flare retained.
PTO 12037	11/5/2008	Operation of a 20.000 MMBtu/hr flare, blower, condensate knockout, and associated controls.
PT-70/Reeval 10318-R2	11/5/2008	Permit reevaluation of facility.
PT-70 ADM 14686	07/16/2015	Change of Responsible Official from Richard Sweet to Shad Springer.
PTO Mod 10318-01	08/23/2017	Removal of PT-70/Reeval 10318-R2 Condition 9.C.1(b)(ii) which limited the capture rate of the landfill collection system to 1,100 scfm.

PERMIT	FINAL ISSUED	PERMIT DESCRIPTION
PT-70/Reeval 10318-R3	08/23/2017	Permit reevaluation of facility.
PTO Mod 10318-02	07/26/2018	Remove hours of operation limitations for the firewater engine.
PTO 15160	12/2/2019	Modify current gas collection system configuration.
ATC 15559	12/21/2020	New air compressor.
ATC 15730	08/22/2023	Installation of a new LFG-fired enclosed flare to replace flares 1 & 2.
ATC Mod 15730 01	TBD**	Decrease the minimum flare temperature and correct number of blowers from one to two.
PTO 15559	TBD**	New air compressor.
PTO 15730	TBD**	Installation of a new LFG-fired enclosed flare to replace flares 1 & 2.

** Final permit issuance incorporated into this permit renewal.

1.2.3 Facility Non-NSR Overview: The following permit at the facility was not subject to NSR:

PERMIT	FINAL ISSUED	PERMIT DESCRIPTION
PTO 11559	10/19/2005	Two existing emergency standby IC engines, permitted due to loss of Rule 202 exemption.

1.3 Emission Sources

The emissions subject to this permit from several sources including the landfill surface, enclosed ground flares, diesel-fired emergency standby generator, firewater engine, LFG condensate/leachate dust suppression, and various fugitive sources such as particulates from vehicles and earthmoving equipment. 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 CSML. 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 control devices, which are permitted under this permit and PT-70 13281 for destruction.

- Use of enclosed ground flares with high efficiency burner design, adequate combustion zone residence time, and use of combustion zone temperature control systems.

1.5 Offsets/Emission Reduction Credit Overview

Offsets: Per the District's revised NSR rules adopted on August 25, 2016, the CSML stationary source is not required to offset emissions at this time because this permitting action is not subject to NSR. Offsets are not triggered federally.

ERCs: CSML does not generate emission reduction credits (ERC).

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 shall 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. Note that the City of Santa Maria is subject to NESHAP (40 CFR Part 63, Subpart AAAA, Subpart ZZZZ) for the landfill, but neither of the Subparts were in effect as of August 7, 1980. Thus, its fugitive reactive organic compounds (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 shall 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 Santa Maria 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 Santa Maria 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 shall 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 requirements listed in Sections 3, 4, and 9 in this 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 shall 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:

Shad Springer, Utilities Director
City of Santa Maria
2065 East Main Street
Santa Maria, CA 93454-8026

2.0 Source and Process Description

2.1 Source and Process Description

2.1.1 Facility Description: The CSML began operations in the early 1950s. It covers an area of approximately 290 acres consisting of inactive, active, and borrow areas. Approximately 265 of the 290 acres are designated for landfill use. In general, the landfill has been developed from the northwest to the southeast with approximately 186 of the available 265 acres used for refuse disposal. The northwest portion of the landfill is active and includes an intermediate cover soil borrow area covering about 79 acres. Approximately 118 acres are currently used for landfill. The waste depth reportedly ranges from about 20 feet to 40 feet. The estimated waste acceptance design capacity of the site is 346 million cubic feet, or about 9.8 million cubic meters.

2.1.2 Facility Operations: CSML currently receives an average of 426.88 tons of MSW per day based on second half 2023 Compliance Verification Report [CVR]) usually generated in the Santa Maria Valley. It operates under a Solid Waste Facility Permit (revised October 2013), which allows CSML to handle up to 778 metric tons per day (858 short tons per day) of waste. The facility includes a recycling and a household hazardous household waste collection program. Landfill operations consist of a 'fill-and-cover method' using onsite soils, tarps, and alternative daily cover to provide daily cover. The refuse is spread and compacted using a compactor. The processes involved 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 (CO_2), 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. During normal operations the collected LFG is compressed, cooled, and filtered before being sent off-site to the Marian Medical Center for use. When Marian Medical Center cannot accept the gas, the LFG is sent to one of two enclosed ground flares (owned by the City of Santa Maria) or the electrical generator (owned by J&A Santa Maria, LLC) at the landfill which are permitted separately.

2.1.2.3 Enclosed Ground Flares: The 13.500 MMBtu/hour enclosed ground flare is 6 feet in diameter and 24 feet tall. The 51.600 MMBtu/hr enclosed ground flare is 8 feet in diameter and 40 feet tall. A small quantity of landfill condensate may be injected in either of the flares for disposal via evaporation. The enclosed ground flares are equipped with automatic ignition systems, propane pilots, an automatic temperature control system, and flame arrestor units to prevent flashback. The flare flame zone temperatures are maintained by automatic controllers at the temperature observed during the most recent compliant source test. Propane for the pilots is stored in a tank located next to the flares. There is an additional 20.000 MMBtu/hour enclosed ground flare that is currently listed as an off permit device, maintained in an out-of-service state not connected to the gas collection system.

2.2 Support Systems

2.2.1 Condensate and Leachate 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 ground flares or IC engines. The collected condensate is stored in a 1,200 gallon holding tank. Condensate is disposed via injection into the enclosed ground flares, hauled off-site to an approved disposal facility, or used as a dust suppressant.
Leachate is the liquid that seeps through the body of the landfill. The bottom of the landfill is equipped with sumps and drainage system in order to capture this liquid. Three electric pumps push the leachate from the bottom of the lined cell to one of two 10,000-gallon holding tanks. From the holding tanks, leachate is hauled off-site to an approved disposal facility or used as a dust suppressant.

2.2.2 Emergency Standby Generator: There is a 277 bhp diesel-fired standby generator that provides power to the facility in the event of a power outage. The 277 bhp engine is permitted to operate for 2 hours per day and 20 hours per year for maintenance and testing. Additionally, there is a 279 bhp diesel-fired standby generator used to produce electrical power to the flare station in the event of a power outage. The 279 bhp engine is permitted to operate for 2 hours per day and 50 hours per year for maintenance and testing.

2.2.3 Firewater Engine: A diesel-fired firewater engine pumps water to the landfill or administrative building in the event of a fire. This engine is permitted to operate the number of hours necessary to comply with the testing requirements of National Fire Protection Association (NFPA) 25/100 "Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems".

2.3 Detailed Process Equipment Listing

A detailed listing of permitted, exempt, and off permit equipment authorized under this permit is included in Attachments 10.1, 10.2, and 10.3 respectively.

3.0 Regulatory Review

3.1 Rule Exemptions

- District Rule 201 (Permits Required): The City of Santa Maria qualifies for exemptions under this rule since the equipment does not have a PTE. The following exemption applies to CSML:
    - Section A for two water tanks (120,000 gallons for firewater and 10,000 gallons for domestic use).
- District Rule 202 (Exemptions to Rule 201): The City of Santa Maria qualifies for 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 CSML:
    - Section D.8 for routine surface coating maintenance activities.
    - Section F.1.c for IC engines used to propel on and off-road vehicles used at the CSML.
    - Section V.2 for storage of refined fuel oils with a gravity of $\leq 40^{o}$ API Gravity (i.e. diesel storage tanks).
    - Section V.8 for propane storage tanks.
    - Section P.13 for explosive ordnance detonation.
- 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:
    - Diesel storage tanks (500 gallon and 250 gallon tanks)
- 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 CSML, such as compactors, loaders, etc. Section B.1.d. of the rule exempts compression ignition emergency standby generator engines as defined under California Code of Regulations, Title 17, Section 93115, Air Toxic Control Measure (ATCM) for Stationary Compression Ignited Engines. Both the diesel-fired emergency standby generator and firewater engine qualify for this exemption.
- District Rule 341 (Municipal Solid Waste Landfills): Section B exempts landfills that are subject to the requirements of Subpart WWW. On September 27, 2021, Subpart WWW was superseded by a combination of 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. CSML 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 13.500 MMBtu/hr enclosed ground flare was permitted under ATC 9547 in August 1996. The 51.600 MMBtu/hr enclosed ground flare was permitted under ATC 15730 on August 22, 2023. Both flares were permitted under District Regulation VIII (NSR). Compliance with this permit's requirements and Regulation VIII ensures the enclosed ground flares will comply with the federal NSR requirements.

3.2.2 40 CFR Part 60 (NSPS): CSML equipment and operations are subject to Subpart A. CSML 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, existing 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. Therefore, only 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 were 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 m^3 and has not permanently closed as of January 16, 2003.

CSML does not have a bioreactor, has accepted waste since November 8, 1987, is an area source, has a design capacity of 9.8 million m^3 and has estimated uncontrolled emissions equal to or greater than 50 Mg per year of NMOC (actual calculated value is 132.41 Mg/year). Therefore, 40 CFR Part 63 Subpart AAAA is applicable to CSML.

Subpart AAAA requires the following:

- Provisions in NESHAP subpart AAAA are largely overlapping with provisions in the Federal Plan (40 CFR part 62 subpart OOO) and the Municipal Solid Waste Landfills regulation. NESHAP subpart AAAA contains more requirements regarding enhanced monitoring associated with a higher wellhead operating temperature and its associated recordkeeping and reporting requirements.

- Comply with the standards and requirements of the subpart. Some requirements in NESHAP subpart AAAA are the same as those in the Federal Plan. In the case where requirements in NESHAP subpart AAAA are more or less stringent than those in the Federal Plan, both sets of requirements must be complied with.

- Subpart AAAA removes the Startup, Shutdown, Malfunction (SSM) Plan requirements that were present in the previous rule.

Note that a Subpart AAAA monitoring deviation occurs when one or more hours during the three-hour block averaging period does not constitute a valid hour of data. A valid one-hour data consists of measured values for at least three 15-minute monitoring periods within that hour.

Subpart ZZZZ (NESHAP for Stationary Reciprocating IC Engines):

The 277 bhp emergency, diesel-fired, compression ignited stationary RICE and firewater engine located at this facility must meet maintenance, monitoring, recordkeeping, and reporting requirements. There are no emission limitations.

- Table 2.c.1 of the Subpart requires the following:
    - Change oil and filter every 500 hours of operation or annually, whichever comes first
    - Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary
    - Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

- §63.6625(f) requires the installation of a non-resettable hour meter if one is not already installed.

- §63.6650(h) requires the submittal of annual reports including the list of information specified in this section of the Subpart.

- §63.6655(f) requires the hours of operation of the engines to be recorded.

The permittee has the option of utilizing an oil analysis program in order to extend the specified oil change interval.

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 ground flares at CSML. Though the flares qualify as control devices, Part 64.2(b)(1)(i) exempts sources from CAM requirements when the sources are regulated by NSPS proposed after November 15, 1990.

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 CSML. Tables 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 Santa Maria certified compliance with all existing District rules and permit conditions. Verification of ongoing compliance is required of the City of Santa Maria 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 Santa Maria 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 CSML 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 Santa Maria'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 regulations are federally enforceable due to the partial approval of California's State Plan from the EPA per Subpart Cf.

3.3.4 Title 17, California Code of Regulations, §93115: The ATCM for Stationary Compression Ignition Engines applies to the diesel-fired emergency backup IC engines and firewater engine. This regulation requires the diesel-fired emergency backup IC engine to be fired exclusively on California Air Resources Board (CARB) ultra-low sulfur diesel and limits the maintenance and testing to 50 hours per year. This regulation requires the firewater 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 of and compliance with certain rules.

The following is a rule-by-rule evaluation of compliance for CSML:

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 ground flares, emergency standby engine, and firewater 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 visible emissions monitoring.

Rule 303 - Nuisance: This rule prohibits the City of Santa Maria 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 CSML facility. All nuisance complaints are investigated by the District and follow the guidelines outlined in Policy & Procedure I.G.2 (Compliance Investigations).

Rule 304 – Particulate Matter, Northern Zone: CSML 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: CSML is considered a Northern Zone source. The maximum allowable concentrations are determined as a function of volumetric discharge, measured in measured in standard cubic feet per minute (scfm), and are listed in Table 305(a) of the rule. Emission units subject to this rule include the enclosed ground flares, emergency standby engine, and firewater 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% CO_2) 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 (H_2S) 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 fence line exists to confirm compliance with this rule. There are no recent complaints of H_2S 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 CSML to 50 gr/100 scf (calculated as H_2S) [or 796 ppmvd] for gaseous fuels. However, this permit restricts the sulfur content of LFG burned in the enclosed ground flares to 6.3 gr/100 scf (100 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 ppmvd). 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 Santa Maria 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 Santa Maria is required to maintain records to ensure compliance with this rule.

Rule 321 - Control of Degreasing 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 having 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 Santa Maria 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 Santa Maria is the industrial maintenance coating limit of 250 grams (g) ROC per liter (l) of coating, as applied. The City of Santa Maria 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 Santa Maria is required to maintain records to ensure compliance with this rule.

Rule 326 - Storage of Reactive Organic 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 diesel storage tanks are exempt from this rule because the vapor pressure is less than 0.5 psia. The leachate storage tank is subject to this rule. 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 Santa Maria 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 diesel fired emergency standby generators and firewater engine are exempt from this rule per Section B.1.d.

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. Subpart WWW was superseded by 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. Since City of Santa Maria 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 Liquids: 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 CSML.

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 ground flares subject to this permit are not used at any of the sources detailed above, Rule 359 does not apply.

Rule 505 - Breakdown Conditions: This rule describes the procedures that City of Santa Maria must follow when a breakdown condition occurs to any emissions unit associated with City of Santa Maria'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, or 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, there have been eight source tests conducted at the facility. These source tests were conducted on May 2, 2018, May 9, 2019, July 25, 2019, May 6, 2020, May 6, 2021, April 8, 2022, May 14, 2024, and November 7, 2024. The most recent source tests for the enclosed ground flares showed compliance with permit limits.

3.5.2 Violations: Since the issuance of the last permit reevaluation on August 23, 2017, this facility has been inspected on December 21, 2017, May 31, 2018, November 27, 2018, June 6, 2019, October 29, 2019, May 28, 2020, November 2, 2020, January 11, 2021, April 1, 2021, November 3, 2021, May 18, 2022, November 30, 2022, April 26, 2023, November 7, 2023, May 15, 2024 and October 8, 2024. Since the last permit reevaluation, the following Notices of Violations (NOVs) have been issued to this facility:

NOV No. 11772: Failed CO lb/hr and lb/MMBtu emission limits on the May 9, 2019 source test for Enclosed Ground Flare 2 (Device ID: 109207).

NOV No. 12193: First quarter sulfur analysis results exceeded permitted limits. Discovered 12/16/2019.

NOV No. 12660: Fourth quarter sulfur analysis results exceeded permitted limits. Discovered 2/28/2019.

NOV No. 13240: Exceeded Surface Methane Emission Standards by exceeding a methane concentration of 500 ppm at two locations on the landfill surface. Discovered 11/30/2022.

NOV No. 13546: Exceeded Surface Methane Emission Standards by exceeding a methane concentration of 500 ppm at seven locations on the landfill surface. Discovered 11/7/2023

NOV No. 13753 Exceeded Surface Methane Emission Standards by exceeding a methane concentration of 500 ppm at four locations on the landfill surface. Discovered 5/15/2024.

3.5.3 Variances: Since the issuance of the last permit reevaluation, the City of Santa Maria 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
RULE 101: Compliance by Existing Installations	All emission units	Emission of pollutants	June 21, 2012
RULE 102: Definitions	All emission units	Emission of pollutants	August 25, 2016
RULE 103: Severability	All emission units	Emission of pollutants	October 23, 1978
RULE 201: Permits Required	All emission units	Emission of pollutants	June 19, 2008
RULE 202: Exemptions to Rule 201	Applicable emission units	Insignificant activities/emissions, per size/rating/function	August 25, 2016
RULE 203: Transfer	All emission units	Change of ownership	April 17, 1997
RULE 204: Applications	All emission units	Addition of new equipment or modification to existing equipment.	August 25, 2016
RULE 205: Standards for Granting Permits	All emission units	Emission of pollutants	April 17, 1997
RULE 206: Conditional Approval of Authority to Construct or Permit to Operate	All emission units	Applicability of relevant Rules	October 15, 1991
RULE 207: Denial of Applications	All emission units	Applicability of relevant Rules	October 23, 1978
RULE 208: 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
RULE 212: Emission Statements	All emission units	Administrative	October 20, 1992
RULE 301: Circumvention	All emission units	Any pollutant emission	October 23, 1978
RULE 302: Visible Emissions	All emission units	PM emissions	June 1981
RULE 303: Nuisance	All emission units	Emissions that can injure, damage or offend.	October 23, 1978
RULE 304: PM Concentration – Northern Zone	Each PM source	Emission of PM	October 23, 1978
RULE 306: Dust and Fumes – Northern Zone	Each PM source	Emission of PM	October 23, 1978
RULE 309: Specific Contaminants	All emission units	Combustion contaminants	October 23, 1978
RULE 311: Sulfur Content of Fuel	All combustion units	Use of fuel containing sulfur	October 23, 1978
RULE 317: Organic Solvents	Emission units using solvents	Solvent used in process operations.	October 23, 1978
RULE 321: Solvent Cleaning Operations	Emission units using solvents	Solvent used in process operations.	June 21, 2012
RULE 322: Metal Surface Coating Thinner and Reducer	Emission units using solvents	Solvent used in process operations.	October 23, 1978
RULE 323: 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
RULE 323.1: Architectural Coatings	Paints used in maintenance and surface coating activities.	Application of architectural coatings.	January 1, 2015
RULE 324: Disposal and Evaporation of Solvents	Emission units using solvents	Solvent used in process operations.	October 23, 1978
RULE 353: Adhesives and Sealants	Emission units using adhesives and sealants	Adhesives and sealants use.	June 21, 2012
RULE 505: Breakdown Conditions	All emission units	Breakdowns where permit limits are exceeded or rule requirements are not complied with.	October 23, 1978
REGULATION VIII (RULES 801-809): New Source Review	All emission units	Addition of new equipment or modification to existing equipment.	August 25, 2016
REGULATION VIII (RULE 810): Federal Prevention of Significant Deterioration	All emission units	Addition of new equipment or modification to existing equipment.	June 20, 2013
REGULATION IX (RULE 901): New Source Performance Standards	Landfill Surface	Landfill to comply with emission standards found in the regulation	September 20, 2010
REGULATION XIII (RULES 1301-1305): Part 70 Operating Permits	All emission units	CSML is subject to regulations promulgated by the EPA	January 18, 2001

Table 3.2 - Unit-Specific Federally Enforceable District Rules

Unit-Specific Requirements	Affected Emission Units	Basis for Applicability	Adoption Date
RULE 326: Storage of Reactive Organic Compounds	Leachate storage tank	Stores ROCs with vapor pressure greater than 0.5 psia and has a capacity of 5,000 gallons or more	December 14, 1993

Table 3.3 - Unit-Specific Federally Enforceable NSPS 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)	Monitoring of the interior wellhead temperature on a monthly basis	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 corrective actions	Y

Table 3.4 – Non-Federally Enforceable District Rules

Requirements	Affected Emission Units	Basis for Applicability	Adoption Date
RULE 210: Fees	All emission units	Administrative	March 17, 2005
RULE 310: Odorous Organic Sulfides	All emission units	Emission of organic sulfides	October 23, 1978
RULES 501-504: Variance Rules	All emission units	Administrative	October 23, 1978
RULES 506-519: 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
§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(b)	Permittee must monitor the gas control system using the procedure 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 CSML generate 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 Ground Flares: NO_x, ROC, CO, oxides of sulfur (SO_x), PM, PM_{10} and particulate matter less than 2.5 microns ($PM_{2.5}$) emissions are generated from the combustion of LFG and propane.
- Condensate and Leachate Management System: Condensate and leachate is used as a dust suppressant at the facility. ROC emissions are generated from this source.
- Emergency Standby Generators: NO_x, ROC, CO, SO_x, PM, PM_{10} and $PM_{2.5}$ emissions are generated from the combustion of diesel.
- Firewater Engine: NO_x, ROC, CO, SO_x, PM, PM_{10} and $PM_{2.5}$ emissions are generated from the combustion of diesel.
- Vehicles: NO_x, ROC, CO, SO_x, PM, PM_{10} 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, PM_{10} 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 34.97 TPY occurs when the LFG collection system is operating. The operation of the LFG collection system reduces the expected uncontrolled landfill fugitive emissions by approximately 74% on a mass basis (about 100.78 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 CSML stationary source emissions.

The landfill is required to be designed, maintained, monitored and operated to comply with the federal NSPS, 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 LFG emissions are calculated using default values for L_o, k, and C_{NMOC} given in AP-42 and the landfill emission equation found in the California's Methane Emissions from Municipal Solid Waste Landfills regulation. The following equation is used:

$$M_{NMOC} = 2^* L_0 * R * (e^{-kc} - e^{-kt}) * C_{NMOC} * (3.6 \times 10^{-9})$$

Where:

M_{NMOC} = Uncontrolled mass emission rate of NMOC in Mg/year
L_0 = Methane generation potential (100 m^3 per Mg of waste, default value)
R = Average annual acceptance rate (6,737,727 tons in place / 52 years = 129,571.67 TPY = 117,535.99 Mg/year)
k = Methane generation rate constant (0.02/year, default value)
t = Age of landfill (in years, 52 years)
C_{NMOC} = Concentration of NMOC (2,420 ppmv as hexane, default AP-42 value)
c = Time since closure, in years; for active landfills, c = 0 and $e^{-kc} = 1.0$

93% of NMOC in the LFG is assumed to be ROC based on a staff report for District Rule 341.

4.2.3 Emission Controls: LFG is extracted from the landfill and transported to the enclosed ground flares 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 the two to four inch diameter well pipes. The LFG is drawn out of the wells into an aboveground piping system that transmits the gas to 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 ground flare, trucked offsite to an approved disposal facility, or used as an onsite dust suppressant. Following the condensate knockout, an electric motor create 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 blower, it is sent to one of the two enclosed ground flares subject to this permit. Alternatively, the gas is compressed and sent to the onsite IC engine subject to PT-70 13281 or the IC engines located at the Marian Medical Center.

The LFG collection system is required to be designed, maintained, monitored and operated to comply with the federal NSPS, Subpart OOO, and California's Methane Emissions from Municipal Solid Waste Landfills regulation. As such, this permit conditionally requires the use of an *Active Collection System Design 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 Ground Flares

4.4.1 General: The collected LFG can be routed to two enclosed ground flares, the 51.600 MMBtu/hr John Zink ZTOF Enclosed Ground Flare (Device ID: 398051) and the 13.500 MMBtu/hr Perennial Energy Inc EF4-10.5 Enclosed Ground Flare 1 (Device ID: 006910) which serves as a backup. There is also a 20.000 MMBtu/hr Perennial Energy Inc FL-90-26-E Enclosed Ground Flare 2 (Device ID: 109207) which is in an out-of-service state and disconnected from the gas collection system.

Both enclosed ground flares are equipped with automatic louvers or dampers, propane pilot, an automatic temperature control system, thermocouples, and flame arrestor units to prevent flashback. A process logic control system directs the LFG from the gas collection system to one of the enclosed ground flares. The controller program is interlocked to prevent both enclosed ground flares from operating simultaneously. Gas flow is continuously measured upstream of the flares by a flow meter. Additionally, collected condensate from the condensate tank may be injected into the enclosed ground flares for disposal via evaporation.

The 51.600 MMBtu/hr Enclosed Ground Flare is equipped with four thermocouples. The 13.500 MMBtu/hr Enclosed Ground Flare 1 is equipped with three thermocouples. One thermocouple is used at a time to measure temperature inside the flare. The appropriate thermocouple is selected automatically based on the heat input to the flare. At low rates, the lowest thermocouple is selected. As the heat input rate to the flare increases, the middle thermocouple is selected. At high firing rates, the highest thermocouple is selected. The heat input rates at which each thermocouple is selected can be found in operation and maintenance manuals for the enclosed ground flares. The selected thermocouple also provides the input for the automatic temperature control system. By selecting the thermocouple at the appropriate height, sufficient residence time above the set point temperature is ensured. The combustion set-point temperature for each enclosed ground flare is established during source testing. If the thermocouple detects temperatures below the set point temperature, the automatic temperature control system closes louvers at the base of the flare to reduce excess air and increase the temperature. If the selected thermocouple detects high temperatures, the automatic temperature control system opens the louvers or dampers.

4.4.2 Emission Factors: The flare emission factors for NO_x and CO were set at BACT levels at the time of permit issuance for each of the enclosed ground flares. The NO_x emission factor is 0.060 lb/MMBtu for both the 13.500 MMBtu/hr flare and the 51.600 MMBtu/hr flare. The CO emission factor for the 13.500 MMBtu/hr flare is 0.400 lb/MMBtu and 0.200 lb/MMBtu for the 51.600 MMBtu/hr flare. The ROC emission factor of 0.080 lb/MMBtu for the 13.500 MMBtu/hr flare and 0.0559 lb/MMBtu for the 51.600 MMBtu/hr flare based on the manufacturer specifications from the ATC/PTO 9547 and ATC 15730 permit applications. The PM emission factor is 0.020 lb/MMBtu for the 13.500 MMBtu/hr flare based on the District default value for LFG fired flares and 0.0168 lb/MMBtu for the 51.600 MMBtu/hr flare based on AP-42 Table 2.4-5. The PM_{10} 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 ground flares are controlled with high efficiency burner design, low NO_x burners, adequate combustion zone residence time and use of combustion zone temperature control systems.

Each 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 Emergency Standby Generators

4.5.1 General: There are two diesel-fired emergency standby generators, a 279 bhp Generac F4HE9685*J emergency standby generator (DID# 398052) and a 277 bhp Cummins 6CTA8.3-G2 emergency standby generator (DID# 107058). In the event of a power outage, the 279 bhp engine is used to provide electrical power to the flare station and the 277 bhp engine is used to provide power to the facility. Maintenance and testing hours of operation are permitted up to 2 hours per day and 50 hours per year for the 279 bhp engine and up to 2 hours per day and 20 hours per year for the 277 bhp engine. The engines are otherwise only permitted to operate during the loss of electrical power to the facility.

4.5.2 Emission Factors: The emission factors for the emergency standby generators are based on the engine rating and year of manufacture. Default emission factors were used for the emergency standby generators and are documented on the District's webpage at http://www.ourair.org/dice/emission-factors/. The SO_x emission factors were 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 Firewater Engine

4.6.1 General: The diesel-fired firewater engine is used to pump water to the landfill or onsite buildings in the event of a fire. Since the NFPA 25 does not specify an upper limit on the hours to comply with the maintenance and testing requirements, in-use firewater pumps will not have a defined potential to emit restricting their operation.

4.6.2 Emission Factors: The emission factors for the firewater engine are based on the engine rating and year of manufacture. Default emission factors were used for the firewater engine. These emission factors are documented on the District's webpage at http://www.ourair.org/dice/emission-factors/. The SO_x emission factor was determined using mass balance. The emission factors listed in this permit are for informational purposes only.

4.7 Condensate and Leachate Management Systems

4.7.1 General: Condensate is removed from the collected LFG and routed to the 1,200-gallon condensate storage tank. Collected condensate may be injected into the enclosed ground flares for disposal via evaporation. The emissions from the incineration of the condensate in the enclosed ground flares are negligible. Alternatively, the collected condensate can be used as a dust suppressant or trucked from facility to an approved disposal site.

Leachate is collected from the landfill and routed to two 10,000 storage tanks. Collected leachate is used as a dust suppressant.

A spray truck is loaded with leachate and condensate used as a dust suppressant for the unpaved roads, other unpaved areas and lined cell of the landfill equipped with a containment system. These activities are conducted on an as needed basis.

The combined emissions from the use of condensate and leachate as a dust suppressant is limited to 2.40 lb/day or ROC per the District's approval letter dated November 8, 2010. These emissions are determined by multiplying the volume of condensate and leachate used as dust suppressant with the respective condensate and leachate ROC concentration.

4.8 Other Emission Sources

4.8.1 Onsite Mobile Source Emissions: These emissions were analyzed in the February 2004 Second Supplemental Environmental Impact Report (EIR). The EIR estimated that pollutant emissions associated with the onsite mobile source activity was as follows: NO_x = 28 TPY, ROC = 3 TPY, CO = 12 TPY, SO_x = 3 TPY and PM/PM_{10} = 3 TPY. Since these emissions are permit exempt, they are not included in the PTE for the facility or stationary source.

4.8.2 Fugitive Dust: These emissions are listed in Table 4.3-3 of the February 2004 Second Supplemental EIR as an update to the December 7, 1993 EIR for the Santa Maria Regional Landfill Site Facility Permit (SCH # 92031045). 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. The supplemental EIR, which reiterated the 1993 EIR, estimated that the PM_{10} emissions associated with landfill fugitive dust is 2.35 tons per day and 857 TPY. Since these emissions are permit exempt, they are not included in the PTE for the facility or stationary source.

4.8.3 Blasting: Blasting is conducted on an as needed basis. Blasting may be needed to implement landfill expansion. The permittee estimates that CSML may experience a maximum of two blasting events per year. Since these emissions are permit exempt, they are not included in the PTE for the facility or stationary source.

4.9 BACT/NSPS/NESHAP/MACT

4.9.1 BACT: Best Available Control Technology was required for the 13.500 MMBtu/hr enclosed ground flare for NO_x and CO at the time of ATC permit issuance. Evaluation of NO_x 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 ground flares. BACT for the 13.500 MMBtu/hr flare was determined to be 0.060 lb/MMBtu for NO_x and 0.400 lb/MMBtu for CO. Further discussion of the emission factors can be found in Section 4.4.2 and Table 4.1.

Best Available Control Technology was required for the 51.600 MMBtu/hr enclosed ground flare for NO_x, ROC, CO, and SO_x at the time of ATC permit issuance. Evaluation of BACT included a review of the South Coast Air Quality Management District, Bay Area Air Quality Management District, and CARB BACT databases applicable to non-hazardous landfill enclosed ground flares. BACT for the 51.600 MMBtu/hr flare was determined to be 0.060 lb/MMBtu/hr for NO_x, 0.0559 lb/MMBtu for ROC, and 0.200 lb/MMBtu for CO, based on the manufacturer's guaranteed emission rates. BACT for SO_x was based on the landfill gas sulfur limit of 6.3 grains per 100 cubic feet (100 ppmvd).

Best Available Control Technology was required for the 279 bhp emergency standby generator (DID# 398052) at the time of ATC permit issuance. Evaluation of BACT included a review of the Santa Barbara County Air Pollution Control District BACT guidelines. BACT for the 279 bhp engine was determined to be the use of a USEPA Certified Tier 3 Engine.

The 277 bhp emergency standby generator (DID# 107058) and firewater engine (DID# 107057) were previously exempt from permit per Rule 202. On March 17, 2005, District Rule 202 (Exemptions to Rule 201) was revised to remove the compression-ignited engine (e.g., diesel) permit exemption for units rated over 50 bhp. That exemption was removed to allow the District to implement the DICE ATCM. As a result, the 277 bhp emergency standby generator and firewater engine are not subject to BACT or NSR.

4.9.2 NSPS: Discussion of applicability regarding NSPS (40 CFR Part 60 Subpart Cf) is presented in Section 3.2.2.

4.9.3 NESHAP: This facility is not subject to the provisions of 40 CFR Part 61.

4.9.4 MACT: CSML is subject to the USEPA-promulgated MACT standards of Subpart AAAA and Subpart ZZZZ. See Section 3.2.5 for discussions regarding the applicability with regards to Subpart AAAA and ZZZZ. These requirements have been included in this permit under Section 9.C to ensure City of Santa Maria's compliance with these federal standards.

Note: Subpart AAAA monitoring deviation occurs when one or more hours during the 3-hour block averaging period does not constitute a valid hour of data. Each valid one-hour data consists of measured values for at least three 15-minute monitoring periods within that hour.

4.10 CEMS/Process Monitoring/Meter Calibration

4.10.1 CEMS: The City of Santa Maria is not required to install CEMS.

4.10.2 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 O_2 wellhead monitoring (see Section 4.11.2 below for an alternative compliance option)
- 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 Ground Flares

- 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

Leachate Tanks

- Flow meter for leachate

Emergency Standby Generators

- Non-resettable hour meter for hours of operation

Firewater Engine

- 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*. This plan 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 plan shall identify the operating ranges of each meter, as well as meter calibration methodologies and frequencies. This plan 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 Santa Maria, 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.

4.11 Source Testing/Sampling

4.11.1 Source Testing: CSML 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. 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 Ground Flares (NO_x, ROC, Methane, and CO)

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

- On a quarterly basis, a LFG sample shall be extracted downstream of the collection system blowers and analyzed for total sulfur content (ppmv), higher heating value (HHV) [Btu/scf], methane (percent by volume) and CO_2 (percent by volume).

- On a quarterly basis, condensate shall be analyzed per EPA Method 8260C.

- On a quarterly basis, leachate shall be analyzed per EPA Method 8260C.

As an alternative compliance option to monthly wellhead oxygen measurements (see Section 4.10.2), the permittee may take a monthly LFG sample from the wellheads and analyze the nitrogen concentration.

The District may require the project, by written notice, to sample additional process streams in a manner and frequency specified by the District as necessary to ensure compliance with this permit and applicable rules and regulations. 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.

4.12 Part 70 Engineering Review: Hazardous Air Pollutant Emissions

HAP emissions were estimated for the landfill fugitive emissions, enclosed ground flares, firewater engine and emergency standby generator engine. The HAP emission factors and emission estimates for these sources are shown in Table 5.6-1, 5.6-2, and 5.6-3.

Table 4.1: Best Available Control Technology Requirements

Emission Source	Pollutant	BACT Technology	BACT Performance Standard
13.500 MMBtu/hr Enclosed Ground Flare (DID: 006910)	NO_x	Low NO_x Burner	0.060 lb/MMBtu
	CO	Low NO_x Burner	0.400 lb/MMBtu
51.600 MMBtu/hr Enclosed Ground Flare (DID: 398051)	NO_x	Low NOx Burner	0.060 lb/MMBtu
	ROC	$\geq$0.7-second retention time at $\geq$1400°F	0.0559 lb/MMBtu, 98% destruction deficiency or 20 ppmvd @ 3% O_2 (as hexane)
	CO	Low NO_x Burner	0.200 lb/MMBtu
	SO_x	LFG sulfur limit	$\leq$ 100 ppmvd as H_2S (0.0355 lb/MMBtu)
279 bhp Emergency Standby Diesel Engine (DID: 398052)	NO_x	<750 bhp: USEPA Certified Tier 3 Engine	2.80 g/bhp-hr
	ROC		0.200 g/bhp-hr
	CO		2.60 g/bhp-hr
	SO_x	CARB diesel fuel	$\leq$ 15 ppmw sulfur (0.0055 g/bhp-hr)

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 Concentration of LFG (1)	Portable Analyzer	Monthly
	Nitrogen Concentration of LFG (1)	Gas Sample	Monthly
	Gauge Pressure in Gas Collection Header	Manometer or Magnehelic Gauge	Monthly
	Temperature of LFG	Thermocouple or Thermometer	Monthly
	LFG Flow	Flow meter	Continuously
	LFG Positive Pressure Component Leaks	Portable Analyzer	Quarterly
Enclosed Ground Flares	LFG Flow	Flow meter	Continuously
	LFG Condensate Flow	Flow meter	Continuously
	Combustion Temperature	Thermocouple or thermometer	Continuously
	LFG Positive Pressure Component Leaks	Portable Analyzer	Quarterly
Condensate Knockout	LFG Condensate Flow	Flow meter	Continuously
Leachate Storage Tanks	Leachate Flow	Flow meter	Continuously
Emergency Standby Generators	Operational Hours	Non-resettable hour meter	Continuously
Firewater Engine	Operational Hours	Non-resettable hour meter	Continuously

Table Notes:

(1) Monitoring for Nitrogen concentration of the LFG is only required if monitoring for Oxygen concentration is not conducted.

Table 4.3: Enclosed Ground Flares Source Test Requirements

Emission and Limit Test Points	Pollutants		Parameters[b]	Test Methods[a][b]	Destruction Efficiency and Concentration[e]	Emission Limits (lb/MMBtu)	Mass Emissions (lb/hr)
Exhaust Stack	13.500 MMBtu/hr Flare (DID# 006910)	NO_x	ppmv, lb/hr	EPA Method 7E, CARB Method 100		0.0600	0.81
		ROC	ppmv, lb/hr	EPA Method 25, EPA Method 25A[g], EPA Method 25C [f]		0.0800	1.08
		Methane	Inlet and outlet ppmv, lb/hr	EPA Method 18, EPA Method 25, EPA Method 25A[g]	99% (mass basis)		
		CO	ppmv, lb/hr	EPA Method 10, CARB Method 100		0.400	5.40
	56.100 MMBtu/hr Flare (DID# 398051)	NO_x	ppmvd, lb/hr	EPA Method 7E, CARB Method 100		0.0600	3.10
		ROC	Inlet and outlet ppmvd, lb/hr	EPA Method 25, EPA Method 25A[g], EPA Method 25C [f]	98% (mass basis) or 20 ppmvd outlet at 3% O_2 (as hexane)	0.0559	2.88
		Methane	Inlet and outlet ppmv, lb/hr	EPA Method 18, EPA Method 25, EPA Method 25A [g]	99% (mass basis)		
		CO	ppmvd, lb/hr	EPA Method 10, CARB Method 100		0.200	10.3
	Sampling Point Det.			EPA Method 1			
	Stack Gas Flow Rate		scfm	EPA Method 2			
	O_2		Dry, Mol. Wt	EPA Method 3, 3A, 3C			
	Moisture Content		%	EPA Method 4			
	Temp.[h]		°C or °F	Thermocouple			
Fuel Gas	Fuel Gas Flow Rate		scfm	Fuel Gas Meter[d]			
	HHV		Btu/scf	ASTM D 1826-88			
	Total Sulfur Content[c]		ppm	ASTM D 1072			

Table Notes:

(a) Alternative methods may be acceptable on a case-by-case basis.
(b) A minimum of three 40-minute runs shall be obtained during each test.
(c) 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 H_2S.
(d) 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).
(e) Destruction rate efficiency = [100 × (inlet mass – outlet mass)] ÷ (inlet mass)
(f) EPA Method 25C may only be used on the enclosed ground flare inlet.
(g) EPA Method 25A should be used in place of EPA Method 25 in cases where the outlet concentration of NMOC is less than 8 ppmv as hexane (or 50 ppmv as carbon).
(h) Temperature to be measured every 15 minutes at a minimum and averaged over the course of the source test.

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 unit 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 unit. 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.

Table 5.2-1 lists the heat input ratings for the enclosed ground flares, horsepower rating of the engines, and operating schedules for each of the combustion units. Table 5.2-2 lists the emission factors used in calculating the enclosed ground flare and engines 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 5.1-2. The permitted emission limits for the emergency standby generators are based on maintenance and testing operations only. Emissions from the engines during emergency operations are not considered part of the facility PTE. There are no permitted emission limits for firewater engine because this engine is permitted to operate the number of hours necessary to comply with the testing requirements of NFPA 25/100.

Condensate and leachate ROC emissions from dust suppression are reported in Table 5.2 and based on written District approval granted on November 8, 2010.

ROC emissions related to the condensate evaporation in the flares 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 CSML 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 29 category source list specified in 40 CFR 70.2. CSML is subject to NESHAP (40 CFR Part 63 Subpart AAAA and Subpart ZZZZ) but neither Subpart was in effect as of August 7, 1980. Additionally, landfills are not listed in 40 CFR 70.2. Therefore, fugitive LFG 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 Permit-Exempt Emission Sources/Part 70 Insignificant Emissions

The following facility equipment and activities are exempt from permit: 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), diesel storage tanks (Rule 202.V.2), 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 tons per year, or any HAP PTE less than 0.5 TPY. No emission units owned or operated by the City of Santa Maria are considered insignificant emission units.

Table 5.1-1
City of Santa Maria Landfill - PT-70/Reeval 10318-R4
Landfill Fugitive Emissions

Date Landfill Opened	1970
Current Year	2023

$$M_{NMOC} = 2L_0R(e^{-kc} - e^{-kt})(C_{NMOC})(3.6x10^{-9})$$

Name	Variable	Value	Units
Refuse methane generation potential [2]	L_o	100	m^3/Mg
Average annual acceptance (as of December 31, 2023) [3]	R	120,509.87	Mg/yr
Methane generation constant [2]	k	0.02	1/yr
Years since closure	c	0	yrs
Age of landfill	t	53	yrs
Concentration of NMOC [2]	C_{NMOC}	2,420	ppmv (as hexane)
Conversion factor	--	3.60E-09	--

Uncontrolled NMOC Emissions, Mg/yr	137.23	Mg NMOC/yr
Uncontrolled NMOC Emissions, tons/yr	151.28	tons NMOC/year
Amount of NMOC Collected, tons/yr [5]	96.99	tons NMOC/year
Fugitive NMOC Emissions to Atmosphere, tons/yr	54.29	tons NMOC/year
Fugitive ROC[5] Emissions to Atmosphere, tons/yr	50.49	tons ROC/year
Fugitive ROC Emissions to Atmosphere, lb/day	276.66	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. Calculated using current waste in place and age of landfill from second half 2023 CVR.
4. NMOC concentration is equal to 2,420 ppmv as hexane (default value per AP-42).
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
City of Santa Maria Landfill - PT-70/Reeval 10318-R4
Captured Landfill Gas

Month	Gas Collected (scf) [1]
January	29,503,579
February	25,045,009
March	28,287,782
April	27,428,894
May	31,290,364
June	29,269,322
July	30,589,293
August	27,570,624
September	32,865,388
October	35,443,863
November	28,210,286
December	26,510,348
Annual Total	**352,014,752**
Daily Average [2]	**964,424**

Conversation and Captured Gas Calculation

964,424	scf/day of captured landfill gas
27,309	m^3/day of captured landfill gas [3]
66.09	m^3/day of captured NMOC [4]
240.38	kg/day of captured NMOC [5]
87.98	Mg/year of captured NMOC
96.99	**TPY of captured NMOC [6]**

Notes:

1. Monthly gas collected volumes are from 2023 CVRs.
2. Days in reporting period is 365 days.
3. 1 m^3 is equal to 35.3147 cubic feet
4. NMOC concentration is equal to 2,420 ppmv as hexane (default value per AP-42).
5. 1 kg NMOC is equal to 0.2749304 m^3 NMOC (see the
6. 1 Mg is equal to 1.1024 tons.

Table 5.2-1
City of Santa Maria Landfill - PT-70/Reeval 10318-R4
Combustion Equipment Information

Device Name	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 Limits		HHV[1] (Btu/scf)	Total Sulfur (ppmv)
								hr/day	hr/year	MMBtu/day	MMBtu/year		
Enclosed Ground Flare	John Zink ZTOF	398051	LFG Combustion	Gas	LFG	51.600	101,976	24	8,760	1,238.400	452,016.000	506	100
Backup Enclosed Ground Flare	Perennial Energy	006910	LFG Combustion	Gas	LFG	13.500	26,680	24	8,760	324.000	118,260.000	506	100

Device Name	Make/Model	Device ID	Engine Use	Horsepower Rating	Operating Limitations	
					hr/day	hr/year
Firewater Engine	Cummins 6CTA8.3-F1	107057	Firewater	240	--	--
E/S Diesel Generator 1	Cummins DGFA 4955539	107058	Emergency Backup	277	2	20
E/S Diesel Generator 2	Generac F4HE9685A*J	398052	Emergency Backup	279	2	50

Notes:
1. Each of the flares is permitted to use up to 20 gal/month of propane to fire their pilots.

Table 5.2-2
City of Santa Maria Landfill - PT-70/Reeval 10318-R4
Combustion Equipment Emission Factors

Device Name	Device ID	NO_x	ROC	CO	SO_x	PM	PM_{10}	$PM_{2.5}$	GHG	Units
Enclosed Ground Flare	398051	0.0600	0.0559	0.2000	0.0355	0.0168	0.0168	0.0168	115.373	lb/MMBtu
Backup Enclosed Ground Flare	006910	0.0600	0.0800	0.4000	0.0512	0.0200	0.0200	0.0200	115.373	lb/MMBtu
Flare Pilots	--	4.4853	0.4934	7.5353	0.0054	0.6818	0.6818	0.6818		lb/1000 gal
Firewater Engine	107057	6.9000	0.9990	8.5000	0.0060	0.4000	0.4000	0.4000	556.600	g/bhp-hr
E/S Diesel Generator 1	107058	6.9000	0.9990	8.5000	0.0060	0.4000	0.4000	0.4000	556.600	g/bhp-hr
E/S Diesel Generator 2	398052	2.8000	0.1998	2.6000	0.0055	0.1500	0.1500	0.1500	556.600	g/bhp-hr

Table 5.2-3
City of Santa Maria Landfill - PT-70/Reeval 10318-R4
Combustion Equipment Emission Limits

Device Name	Device ID	NO_x		ROC		CO		SO_x		PM		PM_{10}		$PM_{2.5}$		GHG	
		lb/day	TPY	lb/day	TPY	lb/day	TPY	lb/day	TPY	lb/day	TPY	lb/day	TPY	lb/day	TPY	lb/day	TPY
Enclosed Ground Flare	398051	74.30	13.56	69.23	12.63	247.68	45.20	43.96	8.02	20.81	3.80	20.81	3.80	20.81	3.80	142,877.87	26,075.22
Enclosed Ground Flare Pilot		0.09	0.00	0.01	0.00	0.15	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.01	0.00		
Backup Enclosed Ground Flare	006910	19.44	3.55	25.92	4.73	129.60	23.65	16.59	3.03	6.48	1.18	6.48	1.18	6.48	1.18	37,380.85	6,822.01
Backup Enclosed Ground Flare Pilot		0.09	0.00	0.01	0.00	0.15	0.00	0.00	0.00	0.01	0.00	0.01	0.00	0.01	0.00		
Firewater Engine	107057	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
E/S Diesel Generator 1	107058	8.43	0.04	1.22	0.01	10.38	0.05	0.01	0.00	0.49	0.00	0.49	0.00	0.49	0.00	679.80	3.40
E/S Diesel Generator 2	398052	3.44	0.04	0.25	0.00	3.20	0.04	0.01	0.00	0.18	0.00	0.18	0.00	0.18	0.00	684.71	8.56
Total:		**86.27**	**13.65**	**70.70**	**12.64**	**261.41**	**45.29**	**43.98**	**8.02**	**21.49**	**3.80**	**21.49**	**3.80**	**21.49**	**3.80**	**144,242.38**	**26,087.18**

Notes:

1. The flare operations include a propane pilot component based on AP-42 factors and the use of 20 gallons of propane per month for startup events each.
2. Only one of the two flares (Device IDs: 398051& 006910) may be fired at any given time. The daily and annual worst case combustion equipment emissions reflect the operation of the Enclosed Ground Flare and it's asssoicated propane pilot (Device ID: 398051).
3. The firewater pump does not have a defined potential to emit restricting its operation.

Table 5.3
City of Santa Maria Landfill - PT-70/Reeval 10318-R4
Facility Potential to Emit (FID: 10854)

Equipment Permitted Emissions															
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			276.66	50.49										
Flares	74.39	13.56	69.24	12.63	247.83	45.20	43.96	8.02	20.82	3.80	20.82	3.80	20.82	3.80
Emergency Standby Generators	11.87	0.09	1.47	0.01	13.58	0.09	0.01	0.00	0.67	0.00	0.67	0.00	0.67	0.00
Condensate and Leachate- Dust Suppression			2.40	0.44										
Total Emissions	**86.27**	**13.65**	**349.77**	**63.57**	**261.41**	**45.29**	**43.98**	**8.02**	**21.49**	**3.80**	**21.49**	**3.80**	**21.49**	**3.80**

Notes:

1. See Table 5.2-3 for the flares' worst case permitted emissions.

Table 5.4
City of Santa Maria Landfill - PT-70/Reeval 10318-R4
Facility Federal Potential to Emit (FID: 08704)

Equipment Permitted Emissions														
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			--	--										
Flares	74.39	13.56	69.24	12.63	247.83	45.20	43.96	8.02	20.82	3.80	20.82	3.80	20.82	3.80
Emergency Standby Generators	11.87	0.09	1.47	0.01	13.58	0.09	0.01	0.00	0.67	0.00	0.67	0.00	0.67	0.00
Condensate and Leachate- Dust Suppression			2.40	0.44										
Total Emissions	**86.27**	**13.65**	**73.10**	**13.08**	**261.41**	**45.29**	**43.98**	**8.02**	**21.49**	**3.80**	**21.49**	**3.80**	**21.49**	**3.80**

Notes:
1. See Table 5.2-3 for the flares' worst case permitted emissions.

Table 5.5
City of Santa Maria Landfill - PT-70/Reeval 10318-R4
Stationary Source Potential to Emit (SSID: 08713)

Stationary Source Permitted Emissions														
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**
City of Santa Maria Landfill (FID: 08704)	86.27	13.65	349.77	63.57	261.41	45.29	43.98	8.02	21.49	3.80	21.49	3.80	21.49	3.80
J&A Santa Maria - Main Street (FID: 10854)	52.01	9.49	41.61	7.59	260.05	47.46	1.08	0.20	5.26	0.96	5.26	0.96	5.26	0.96
Total Emissions	**138.28**	**23.14**	**391.38**	**71.16**	**521.46**	**92.75**	**45.06**	**8.22**	**26.75**	**4.76**	**26.75**	**4.76**	**26.75**	**4.76**

Table 5.6-1
City of Santa Maria Landfill - PT-70/Reeval 10318-R4
Hazardous Air Pollutant Emission Factors

Source Type	Equipment Type	Device ID	Reference	Units	Metals										
					Arsenic 7440382	Beryllium 7440417	Cadmium 7440439	Chromium 7440473	Cobalt 7440484	Lead 7439921	Manganese 7439965	Mercury 7439976	Nickel 7440020	Selenium 7782492	Vanadium 7440622
					74.92	9.01	112.41	52.00	58.93	207.20	54.94	200.59	58.69	78.96	50.94
Combustion - Engines	Firewater Engine	107057	References 1 & 2	lb/1000 gal	0.0016	--	0.0015	0.0006	--	0.0083	0.0031	0.0020	0.0039	0.0022	--
	E/S Diesel Engine 1	107058	References 1 & 2	lb/1000 gal	0.0016	--	0.0015	0.0006	--	0.0083	0.0031	0.0020	0.0039	0.0022	--
	E/S Diesel Engine 2	398052	References 1 & 2	lb/1000 gal	0.0016	--	0.0015	0.0006	--	0.0083	0.0031	0.0020	0.0039	0.0022	--
Combustion - Flares	Enclosed Ground Flare - LFG	398051	References 3 & 4	lb/MMcf	0.0591	--	0.00143	0.00464	--	--	0.00292	--	0.00143	--	--
	Enclosed Ground Flare - Propane Pilot	398051	References 5 & 6[1,2]	lb/1000 gal	1.79E-05	1.08E-06	9.87E-05	0.000126	7.54E-06	4.49E-05	3.41E-05	2.33E-05	0.000188	2.15E-06	0.000206
	Backup Enclosed Ground Flare - LFG	006910	References 3 & 4	lb/MMcf	0.0591	--	0.00143	0.00464	--	--	0.00292	--	0.00143	--	--
Fugitives	Total Fugitives				--	--	--	--	--	--	--	--	--	--	--

References:

1 - Ventura County Air Pollution Control District. May 2001. *AB 2588 Combustion Emission Factors.* Diesel Combustion Factors Table - internal combustion.
http://www.vcapcd.org/pubs/Engineering/AirToxics/combem.pdf

2 - South Coast Air Quality Management District. December 2016. *Reporting Procedures for AB2588 Facilities for Reporting their Quadrennial Air Toxics Emissions Inventory.* Table B-2: Default EF for Diesel/Distillate Oil Fuel Combustion - Stationary and Portable Internal
http://www.aqmd.gov/docs/default-source/planning/annual-emission-reporting/supplemental-instructions-for-ab2588-facilities.pdf

3 - Santa Barbara County Air Pollution Control District. June 2014. *Landfill Gas Fired Flare Toxic Emission Factors.xls.*
https://www.ourair.org/wp-content/uploads/Landfill-Gas-Fired-Flare-Toxic-Emission-Factors.xls

4 - California Air Resources Board. 2023. *California Air Toxics Emission Factor.* Maximum emission factors for landfill gas flares supplemented the source test emission factors for pollutants not included in source testing, noted in Reference 4.
https://ww2.arb.ca.gov/california-air-toxics-emission-factor

5 - Ventura County Air Pollution Control District. May 2001. *AB 2588 Combustion Emission Factors.* Natural Gas Fired External Combustion Equipment Table - flare.
http://www.vcapcd.org/pubs/Engineering/AirToxics/combem.pdf

6 - USEPA. July 1998. *AP-42 Chapter 1.4.* Table 1.4-4: Emission Factors for Metals from Natural Gas Combustion.
https://www3.epa.gov\ttn\chief\ap42\ch01\final\c01s04.pdf

7 - Emission factors are based on the maximum values from 4 years (2009 to 2013) of LFG samples from Tajiguas Landfill in santa barbara County. Pollutants detected at non-detection levels were included at their detection limits.

8 - Supplemented with AP-42 draft Table 2.4-1 (October 2008), "LFG Constituents for Landfills With Waste in Place On Or After 1992", when no compound was measured.

Notes:

1 - The lead emission factor is from AP-42 Table 1.4-2: Emission Factors for Criteria Pollutants and Greenhouse Gases from Natural Gas

2 - Natural gas emission factors were converted to propane based on a HHV of 1,020 Btu/scf for natural gas and 91,500 Btu/gal for propane.

Organic Compounds																			
Acetaldehyde 75070	Acetonitrile 75058	Acrolein 107028	Acrylonitrile 107131	Benzene 71432	Benzyl Chloride 100447	1,3-Butadiene 106990	Carbon Disulfide 75150	Carbon Tetrachloride 56235	Chlorobenzene 108907	Chloroform 67663	1,1-Dichloroethane 75343	p-Dichlorobenzene 106467	1,4-Dioxane 123911	Ethyl Benzene 100414	Ethyl Chloride 75003	Ethylene Dibromide 106934	Ethylene Dichloride 107062	Formaldehyde 50000	n-Hexane 110543
44.05	41.05	56.06	53.06	78.11	126.58	54.09	76.14	153.82	112.56	119.38	89.96	147.00	88.11	106.17	64.51	187.86	98.96	30.03	86.18
0.7833	--	0.0339	--	0.1863	--	0.2174	--	--	0.0002	--	--	--	--	0.0109	--	--	--	1.7261	0.0269
0.7833	--	0.0339	--	0.1863	--	0.2174	--	--	0.0002	--	--	--	--	0.0109	--	--	--	1.7261	0.0269
0.7833	--	0.0339	--	0.1863	--	0.2174	--	--	0.0002	--	--	--	--	0.0109	--	--	--	1.7261	0.0269
0.653	7.96	0.0933	0.0045	0.859	--	--	--	0.0376	0.869	0.0560	0.437	--	0.00455	--	--	--	1.35	0.177	--
0.00386	--	0.000897	--	0.0143	--	--	--	--	--	--	--	--	--	0.130	--	--	--	0.105	0.00260
0.653	7.96	0.0933	0.0045	0.859	--	--	--	0.0376	0.869	0.0560	0.437	--	0.00455	--	--	--	1.35	0.177	--
7.74E-02	--	--	3.00E-01	5.09E-01	1.81E-02	1.66E-01	2.00E-01	4.00E-02	7.20E-02	4.00E-02	6.00E-02	6.47E-01	8.29E-03	5.28E+00	9.10E-02	4.80E-03	6.00E-02	1.17E-02	--

Organic Compounds																			
Hydrochloric Acid 7647010	Hydrogen Fluoride 7664393	Hydrogen Sulfide 77830604	Methyl Bromide 74839	Methyl Chloroform 71556	Methyl Ethyl Ketone 78933	Methyl tert-Butyl Ether 1634044	Methylene Chloride 75092	PAHs 1150/1151	Perchloroethylene 127184	Styrene 100425	1,1,2,2-Tetrachloroethane 79345	Toluene 108883	Trichloroethylene 79016	1,1,2-Trichloroethane 79005	Vinyl Acetate 108054	Vinyl Chloride 75014	Vinylidene Chloride 75354	Xylenes 1330207
36.46	20.01	34.08	94.94	133.40	72.11	88.15	84.93	128.18	165.83	104.15	167.85	92.14	131.40	133.40	86.09	62.50	96.94	106.16
0.1863	--	--	--	--	--	--	--	0.0559	--	--	--	0.1054	--	--	--	--	--	0.0424
0.1863	--	--	--	--	--	--	--	0.0559	--	--	--	0.1054	--	--	--	--	--	0.0424
0.1863	--	--	--	--	--	--	--	0.0559	--	--	--	0.1054	--	--	--	--	--	0.0424
0.00161	0.215	--	--	0.337	--	--	9.41	0.3939	--	--	--	109	1.130	--	--	0.0764	--	0.7960
--	--	--	--	--	--	--	--	0.001256	--	--	--	0.00520	--	--	--	--	--	0.00260
0.00161	0.215	--	--	0.337	--	--	9.41	0.3939	--	--	--	109	1.130	--	--	0.0764	--	0.7960
--	--	9.40E+01	2.10E-02	4.00E-02	5.44E+00	1.18E-01	6.00E-02	1.07E-01	1.57E-01	4.11E-01	6.00E-02	3.90E+00	8.50E-02	6.00E-02	2.48E-01	1.33E-01	6.00E-02	1.47E+01

Table 5.6-2
City of Santa Maria Landfill - PT-70/Reeval 10318-R4
Annual Hazardous Air Pollutant Emissions

Source Type	Equipment Type	Device ID	Metals										
			Arsenic 7440382	Beryllium 7440417	Cadmium 7440439	Chromium 7440473	Cobalt 7440484	Lead 7439921	Manganese 7439965	Mercury 7439976	Nickel 7440020	Selenium 7782492	Vanadium 7440622
Combustion - Engines	Firewater Engine	107057	--	--	--	--	--	--	--	--	--	--	--
	E/S Diesel Engine 1	107058	2.52E-07	--	2.37E-07	9.46E-08	--	1.31E-06	4.89E-07	3.15E-07	6.15E-07	3.47E-07	--
	E/S Diesel Engine 2	398052	6.35E-07	--	5.96E-07	2.38E-07	--	3.30E-06	1.23E-06	7.94E-07	1.55E-06	8.74E-07	--
Combustion - Flares	Enclosed Ground Flare - LFG	398051	2.64E-02	--	6.39E-04	2.07E-03	--	--	1.30E-03	--	6.39E-04	--	--
	Enclosed Ground Flare - Propane Pilot	398051	4.31E-06	2.58E-07	2.37E-05	3.01E-05	1.81E-06	1.08E-05	8.18E-06	5.60E-06	4.52E-05	5.17E-07	4.95E-05
	Backup Enclosed Ground Flare	006910	6.91E-03	--	1.67E-04	5.42E-04	--	--	3.41E-04	--	1.67E-04	--	--
Fugitives	Total Fugitives		--	--	--	--	--	--	--	--	--	--	--
		TOTAL:	3.33E-02	2.58E-07	8.30E-04	2.65E-03	1.81E-06	1.54E-05	1.66E-03	6.71E-06	8.53E-04	1.74E-06	4.95E-05

Notes:

1. Default fuel properties for diesel (i.e. BSFC value of 7,800 (Btu/bhp-hr) and a HHV of 137,000 (Btu/gal) are from Tables 5 and 6 of the SBCAPCD's Piston IC Engine Technical Reference Document (2002, link: https://www.ourair.org/wp-content/uploads/sbcapcdicerefdoc.pdf).
2. Fugitive emissions are calculated based on a molar volume of 379.62 scf/lb-mole for landfill gas (See "Controlled Landfill Gas" Tab).
3. An example calculation for total landfill fugitives is below:

   TPY = EF (ppmv) * 10^{-6} * Total Fugitive Raw Landfill Gas (scf/yr) / Molar Volume (scf/lb-mole) * MW (lb/lb-mole) / 2,000 (lbs/ton)

4. 1 kg NMOC is equal to 0.27493 m^3 NMOC (See "Controlled Landfill Gas", Tab note 5).
5. NMOC in landfill gas is 136 ppm per the May 2016 source test.

Total Landfill Gas Released to Atmosphere				
Tons NMOC/ yr	kg NMOC/yr	m^3 NMOC/yr [4]	scf NMOC/yr	scf Raw LFG/ yr [5]
54.29	49,252.12	13,540.88	478,192.28	3.52E+09

Organic Compounds																		
Acetaldehyde 75070	Acetonitrile 75058	Acrolein 107028	Acrylonitrile 107131	Benzene 71432	Benzyl Chloride 100447	1,3-Butadiene 106990	Carbon Disulfide 75150	Carbon Tetrachloride 56235	Chlorobenzene 108907	Chloroform 67663	1,1-Dichloroethane 75343	p-Dichlorobenzene 106467	1,4-Dioxane 123911	Ethyl Benzene 100414	Ethyl Chloride 75003	Ethylene Dibromide 106934	Ethylene Dichloride 107062	Formaldehyde 50000
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1.24E-04	--	5.35E-06	--	2.94E-05	--	3.43E-05	--	--	3.15E-08	--	--	--	--	1.72E-06	--	--	--	2.72E-04
3.11E-04	--	1.35E-05	--	7.40E-05	--	8.63E-05	--	--	7.94E-08	--	--	--	--	4.33E-06	--	--	--	6.85E-04
2.92E-01	3.56E+00	4.17E-02	2.01E-03	3.84E-01	--	--	--	1.68E-02	3.88E-01	2.50E-02	1.95E-01	--	2.03E-03	--	--	--	6.03E-01	7.91E-02
9.26E-04	--	2.15E-04	--	3.42E-03	--	--	--	--	--	--	--	--	--	3.11E-02	--	--	--	2.52E-02
7.63E-02	9.30E-01	1.09E-02	5.26E-04	1.00E-01	--	--	--	4.39E-03	1.02E-01	6.54E-03	5.11E-02	--	5.32E-04	--	--	--	1.58E-01	2.07E-02
1.58E-02	--	--	7.37E-02	1.84E-01	1.06E-02	4.16E-02	7.05E-02	2.85E-02	3.75E-02	2.21E-02	2.50E-02	4.40E-01	3.38E-03	2.60E+00	2.72E-02	4.18E-03	2.75E-02	1.63E-03
3.85E-01	4.49E+00	5.28E-02	7.63E-02	6.72E-01	1.06E-02	4.17E-02	7.05E-02	4.97E-02	5.27E-01	5.37E-02	2.71E-01	4.40E-01	5.95E-03	2.63E+00	2.72E-02	4.18E-03	7.88E-01	1.27E-01

Organic Compounds																			
n-Hexane 110543	Hydrochloric Acid 7647010	Hydrogen Fluoride 7664393	Hydrogen Sulfide 77830604	Methyl Bromide 74839	Methyl Chloroform 71556	Methyl Ethyl Ketone 78933	Methyl tert-Butyl Ether 1634044	Methylene Chloride 75092	PAHs 1150/1151	Perchloroethylene 127184	Quinone 106514	Styrene 100425	1,1,2,2-Tetrachloroethane 79345	Toluene 108883	Trichloroethylene 79016	1,1,2-Trichloroethane 79005	Vinyl Acetate 108054	Vinyl Chloride 75014	Vinylidene Chloride 75354	Xylenes 1330207
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
4.24E-06	2.94E-05	--	--	--	--	--	--	--	8.82E-06	--	--	--	--	1.66E-05	--	--	--	--	--	6.69E-06
1.07E-05	7.40E-05	--	--	--	--	--	--	--	2.22E-05	--	--	--	--	4.19E-05	--	--	--	--	--	1.68E-05
--	7.19E-04	9.60E-02	--	--	1.51E-01	--	--	4.20E+00	1.76E-01	--	--	--	--	4.87E+01	5.05E-01	--	--	3.41E-02	--	3.56E-01
6.24E-04	--	--	--	--	--	--	--	--	3.01E-04	--	--	--	--	1.25E-03	--	--	--	--	--	6.24E-04
--	1.88E-04	2.51E-02	--	--	3.94E-02	--	--	1.10E+00	4.60E-02	--	--	--	--	1.27E+01	1.32E-01	--	--	8.93E-03	--	9.30E-02
--	--	--	1.48E+01	9.23E-03	2.47E-02	1.82E+00	4.82E-02	2.36E-02	6.35E-02	1.21E-01	--	1.98E-01	4.66E-02	1.66E+00	5.17E-02	3.71E-02	9.89E-02	3.85E-02	2.69E-02	7.23E+00
6.39E-04	1.01E-03	1.21E-01	1.48E+01	9.23E-03	2.15E-01	1.82E+00	4.82E-02	5.33E+00	2.86E-01	1.21E-01	--	1.98E-01	4.66E-02	6.31E+01	6.88E-01	3.71E-02	9.89E-02	8.15E-02	2.69E-02	7.68E+00

6.0 Air Quality Impact Analyses

6.1 Modeling

Air quality modeling was not required for this facility.

6.2 Increments

An air quality increment analysis (AQIA) was not required for the equipment subject to this permit. However, an air quality increment analysis was performed when J&A Santa Maria, LLC installed the IC engine and generator at the stationary source. The AQIA demonstrated that the installation of the engine would not cause an ambient air quality standard or increment to be exceeded. Details of the AQIA can be found in ATC 13281.

6.3 Monitoring

Air quality monitoring is not required for this facility.

6.4 Health Risk Assessment

A health risk assessment was not required for the equipment subject to this permit. However, in April 2011, an air toxics Health Risk Assessment (HRA) was conducted by West Coast Environmental and Engineering on behalf of J&A Santa Maria, LLC prior to the installation of the IC engine at the Santa Maria Landfill Gas Power Plant. This HRA included the emissions from the IC engine, as well as the emissions from CSML's enclosed ground flare and the fugitive emissions from the landfill itself. Marian Medical also operates an IC engine using LFG from the Santa Maria Landfill, but those emissions were not included in this modeling, as that equipment is not considered a part of this stationary source.

The HRA was conducted using the Hotspots Analysis and Reporting Program (HARP) software, Version 1.4c (Build 23.09.06). Cancer risk and chronic and acute non-cancer Hazard Index (HI) risk values were calculated and compared to significance thresholds for cancer and chronic and acute non-cancer risk adopted by the District's Board of Directors. The HRA was based on residential lifetime exposure duration of 70 years. The calculated risk values and applicable thresholds are as follows:

	Santa Maria Landfill Max Risks	Significance Thresholds
Cancer risk:	3.7/million	>10/million
Chronic non-cancer risk:	0.02	>1
Acute non-cancer risk:	0.4	>1

Based on these results, the equipment at the City of Santa Maria stationary source did not cause exceeded significant risk to the community. See ATC 13281 for complete details regarding the HRA.

Additionally, in March 2023, the Santa Barbara County Air Pollution Control District (District) conducted an air toxics Health Risk Assessment (HRA) as part of the permitting process for Authority to Construct No. 15730 for the Santa Maria Regional Landfill's new 51.600 MMBtu/hr flare and 279 bhp emergency standby diesel engine. The HRA was completed using AERMOD Build 21112 in Lakes' AERMOD View, Version 10.2.1 and the Hotspots Analysis and Reporting Program software Version 2 (HARP 2), Build 22118. SCS Engineers submitted the HRA for the project on behalf of the City of Santa Maria, and the District revised the modeling and completed the final HRA and report. Cancer risk and non-cancer Hazard Index (HI) risk values were calculated and compared to *significance thresholds* adopted by the District's Board of Directors. The calculated risk values and applicable thresholds are as follows:

	ATC 15730 Max Risks	Significance Thresholds
Cancer risk:	0.5/million	>10/million
Chronic non-cancer risk:	<0.01	>1
8-hour chronic non-cancer risk:	<0.01	>1
Acute non-cancer risk:	0.08	>1

Based on these results, the new flare and emergency standby diesel engine at Santa Maria Regional Landfill did not present a significant risk to the surrounding community. See ATC 15630 for complete details regarding the HRA.

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 PM_{10} 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 CSML stationary source is not required to offset emissions at this time because this permitting action is not subject to NSR.

7.4 Emission Reduction Credits

The CSML stationary source does not generate or provide emission reduction credits.

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 the CSML. 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 Santa Maria:

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/AQIA, 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 CSML, 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 - North 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 H_2S) for gaseous fuel. Compliance with this condition shall be based on quarterly 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
391484	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 Rasing*), and 9.C.2.a.vii (*Repairs and Temporary Shutdown of LFG Collection System Components)*, 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. [*Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95465(a)(1); 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 Rasing*), and 9.C.2.a.vii (*Repairs and Temporary Shutdown of LFG Collection System Components)*, 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. [*Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95465(a)(2); 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)*]

b. Operational Limits: The landfill is subject to the operational restriction listed below:

i. *Design Capacity:* The total amount of MSW placed in the CSML shall not exceed a maximum of 278,654 metric tons per year. [*Ref: ATC/PTO 10318*]

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 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 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)*]

4. *Monthly Re-monitoring:* Any location that initially showed an exceedance during quarterly monitoring but has a methane concentration less than 500 ppm methane above background at the 10-day re-monitoring specified in Conditions 9.C.1.c.i.1 (*First Exceedance)*, or 9.C.1.c.i.2 (*Second Exceedance)* shall be re-monitored 1 month from the initial exceedance. If the 1-month re-monitoring shows a concentration less than 500 ppm above background, no further monitoring of that location is required until the next quarterly monitoring period. If the 1-month re-monitoring shows a second exceedance at the location within a quarterly period, the actions specified in Condition 9.C.1.c.i.2 (*Second Exceedance)* shall be taken. If the 1-month re-monitoring shows a third exceedance at the location within a quarterly period, the actions specified in Condition 9.C.1.c.i.3 (*Third Exceedance*) shall be taken.

[*Ref: 40 CFR §63.1960.c.4.iv*]

A reading found by the permittee exceeding the limit of 500 ppmv as specified in Condition 9.C.1.a.i 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 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 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 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 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 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 on a 15-minute average 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 instantaneous 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 the collection system. [*Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95464(a)(1)(F); CCR Subchapter 10, Article 4, Subarticle 6 §95470(a)(1)(G); 40 CFR §62.1100(b)(7)*]

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)*]

i. 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.

ii. 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.

iii. 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.

iv. The latitude and longitude coordinates of each exceedance using an instrument with an accuracy of at least 4 meters shall be recorded in decimal degrees with at least five decimal places. *[Ref: 40 CFR §63.1958(d)(2)(iii)]*

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 all 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:* Annual solid waste acceptance rate and the current amount of waste-in-place. [*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); 40 CFR §63.1983(d)(2)*]

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.

e. Reporting: On a semi-annual basis, a report detailing the previous six month's activities shall be provided to the District. The report shall list all the 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
105956	Landfill Gas Extraction Wells
105957	Landfill Gas Collection Piping
109208	Landfill Gas Blower
393040	Sumps

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 as well as repairs and temporary shutdown of gas collection system components as defined by Condition 9.C.2.a.vii. [*Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95464(b)(1)(A); 40 CFR §62.1100(b)(7)*]

1. In the event the collection or control system is not operating:

a. The gas mover system shall be shut down and all valves in the collection and control system contributing to venting of the gas to the atmosphere shall be closed within 1 hour of the collection or control system not operating; and [*Ref: 40 CFR §63.1958(e)(1)(i)]*

b. Efforts to repair the collection or control system shall be initiated and completed in a manner such that downtime is kept to a minimum, and the collection and control system shall be returned to operation. [*Ref: 40 CFR §63.1958(e)(1)(ii)]*

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 are occurring for the well.

2. Repairs and temporary shutdown of gas collection system components is occurring as defined by Condition 9.C.2.a.viii.

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 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 §62.16716(c)*]

vi. *Subpart AAAA Wellhead Temperature:* Operate each interior wellhead in the collection system with an LFG temperature less than 62.8 °C (145°F); The permittee may establish a higher operating temperature value at a particular well. A higher operating value demonstration must be submitted to the Administrator for approval and must include supporting data demonstrating that the elevated parameter neither causes fires nor significantly inhibits anaerobic decomposition by killing methanogens. The demonstration must satisfy both criteria in order to be approved. [*Ref: 40 CFR §63.1958(c)*]

vii. *Wellhead Nitrogen and Oxygen:* Operate each interior wellhead in the collection system with either a nitrogen level less than 20% or oxygen level less than 5%. [*Ref: 40 CFR §62.16722(a)(2)*; *40 CFR §63.1983(e)(2)*]

viii. *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, provided the following requirements are met:

1. Any new LFG collection system components required to maintain compliance with this permit shall be designed by a professional engineer based on site specific conditions. [*Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95464(e)(1); 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 LFG leaks using a portable analyzer meeting the requirements of Condition 9.C.1.c.vi. 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 or repairs and temporary shutdown of gas collection system components as defined by Condition 9.C.2.a.viii, the permittee shall take the following actions: [*Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95469(c); 40 CFR §62.1100(b)(7); 40 CFR §63.1960(a)(3*)]

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); 40 CFR §63.1960(a)(3)(i)*]

2. *Further Corrective Actions:*

a. If negative pressure cannot be achieved without excess air infiltration within 15 days of the first measurement of positive pressure, the permittee shall:

i. Conduct a root cause analysis and correct the exceedance as soon as practicable, but no later than 60 days after positive pressure was first measured.[*Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95469(c)(2); 40 CFR §62.1100(b)(7); 40 CFR §63.1960(a)(3)(i)(A)*]

ii. Maintain records in accordance with Condition 9.C.2.c.x.1. [*Ref: 40 CFR §62.16726(e)(3); 40 CFR §63.1983(e)(3)*]

b. If corrective actions cannot be fully implemented within 60 days following the positive pressure measurement for which the root cause analysis was required, the permittee shall:

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 §62.16720(a)(3)(ii)*; *40 CFR §63.1960(a)(3)(i)(B)*]

ii. Submit a notification to the Administrator as soon as practicable but no later than 75 days after the first measurement of positive pressure. *[40 CFR §62.16724(k)(2), 40 CFR §63.1981(j)(1)*]

iii. Maintain records in accordance with Condition 9.C.2.c.x.2. [*Ref: 40 CFR §62.16726(e)(4); 40 CFR §63.1983(e)(4)*]

c. If corrective action is expected to take longer than 120 days to complete after the initial exceedance, the permittee shall:

i. Submit the root cause analysis, corrective action analysis, plan for corrective action and corresponding implementation timeline to the Administrator for approval as soon as practicable but no later than 75 days after the first measurement of a positive pressure exceedance. [*Ref: 40 CFR §62.16724(k)(1), 40 CFR §63.1960(a)(3)(i)(C); 40 CFR §63.1983(j)(2)*]

ii. 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)*]

iii. Maintain records in accordance with Condition 9.C.2.c.x.3. [*Ref: 40 CFR §62.16726(e)(5); 40 CFR §63.1983(e)(5)*]

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 §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 §62.16720(a)(4)*]

    a. Submit a deviation report to the District (engr@sbcapcd.org) for any exceedances of the 55 °C (131°F) temperature limit. [*Ref: 40 CFR Part 70 §70.6(a)(3)(iii)(b)*]

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 §62.16720(a)(4)(i)*]

        ii. Maintain records in accordance with Condition 9.C.2.c.x.1. [*Ref: 40 CFR §62.16726(e)(3)*]

    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 §62.16720(a)(4)(ii)*]

        ii. Submit a notification to the Administrator as soon as practicable but no later than 75 days after the initial temperature exceedance measurement. [*Ref: 40 CFR §62.16724(k)(2)*]

        iii. Maintain records in accordance with Condition 9.C.2.c.x.2. [*Ref: 40 CFR §62.16726(e)(4)*]

    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 Administrator for approval as soon as practicable but no later than 75 days

after the initial temperature exceedance measurement. [*Ref: 40 CFR §62.16720(a)(4)(iii), 40 CFR §62.16724(k)(1)*]

ii. Maintain records in accordance with Condition 9.C.2.c.x.3. [*Ref: 40 CFR §62.16726(e)(5)*]

v. *Subpart AAAA 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 62.8 °C (145 °F) the permittee shall take the following actions: [*Ref: 40 CFR §63.1961(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 §63.1960(4)(i)*]

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 §63.1960(4)(i)(A)*]

ii. Maintain records in accordance with Condition 9.C.2.c.x.1. [*Ref: 40 CFR §63.1983(e)(3)*]

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 §63.1960(4)(i)(B)*]

ii. Submit a notification to the Administrator as soon as practicable but no later than 75 days after the initial temperature exceedance measurement. [*Ref: 40 CFR §63.1981(j)(1)*]

iii. Maintain records in accordance with Condition 9.C.2.c.x.2. [*Ref: 40 CFR §63.1983(e)(4)*]

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 Administrator for approval as soon as practicable but no later than 75 days after the initial temperature exceedance measurement. [*Ref: 40 CFR §63.1960(a)(4)(i)(C), 40 CFR §63.1983(j)(2)*]

ii. Maintain records in accordance with Condition 9.C.2.c.x.3. [*Ref: 40 CFR §63.1983(e)(5)*]

d. *Subpart AAAA Enhanced Monitoring:* If a well exceeds 62.8 °C (145°F) the permittee shall also take the following actions: [*Ref: 40 CFR §63.1961(a)(5)*]

i. Visual observations for subsurface oxidation events (smoke, smoldering ash, damage to well) within the radius of influence of the well. [*Ref: 40 CFR §63.1961(a)(5)(i)*]

ii. Monitor oxygen concentration. [*Ref: 40 CFR §63.1961(a)(5)(ii)*]

iii. Monitor temperature of the landfill gas at the wellhead. [*Ref: 40 CFR §63.1961(a)(5)(iii)*]

iv. Monitor temperature of the landfill gas every 10 vertical feet of the well. [*Ref: 40 CFR §63.1961(a)(5)(iv)*]

v. Monitor the methane concentration with a methane meter or a portable gas composition analyzer to monitor the methane levels provided that the analyzer is calibrated and the analyzer meets all quality assurance and quality control requirements for EPA Method 3C or EPA Method 18. [*Ref: 40 CFR §63.1961(a)(5)(v)*]

vi. Monitor and determine carbon monoxide concentrations in accordance with the provisions of 40 CFR §63.1961(a)(5)(vi). [*Ref: 40 CFR §63.1961(a)(5)(vi)*]

vii. The enhanced monitoring in conditions i – vi above shall begin 7 calendar days after the first measurement of landfill gas temperature greater than 62.8 °C (145°F). [*Ref: 40 CFR §63.1961(a)(5)(vii)*]

viii. The enhanced monitoring in conditions i – vi above shall be conducted on a weekly basis. If four consecutive weekly carbon monoxide readings are under 100 ppmv, then enhanced monitoring may be decreased to monthly. However, if carbon monoxide readings exceed 100 ppmv again, the landfill shall return to weekly monitoring. [*Ref: 40 CFR §63.1961(a)(5)(viii)*]

ix. The enhanced monitoring can be stopped once a higher operating value is approved, at which time the monitoring provisions issued with the higher operating value should be followed, or once the measurement of landfill gas temperature at the wellhead is less than or equal to 62.8 °C (145°F). [*Ref: 40 CFR §63.1961(a)(5)(ix)]*

d. If a well exceeds 73.9 °C (165 °F) the permittee shall annually monitor temperature of the landfill gas every 10 vertical feet of the well. This temperature can be monitored either with a removable thermometer, or using temporary or permanent thermocouples installed in the well. [*Ref: 40 CFR §63.1961(a)(6)*]

e. If a landfill gas temperature measured at either the wellhead or at any point in the well is greater than or equal to 76.7 °C (170 °F) and the carbon monoxide concentration measured in accordance with the provisions of 40 CFR §63.1961(a)(5)(vi) is greater than or equal to 1,000 ppmv, the corrective action(s) for the wellhead temperature standard shall be completed within 15 days and the following report shall be submitted: [*Ref: 40 CFR §63.1960(a)(4)(i)(D*)]

i. Submit a 24-hour high temperature report to the Administrator. The permittee shall report the date, time, well identifier, temperature and carbon monoxide reading within 24 hours of the measurement unless a higher well temperature value has been approved by the Administrator for the well. [*Ref: 40 CFR §63.1981(k)]*

vi. *Wellhead Nitrogen or Oxygen:* Each well shall be monitored monthly for nitrogen or oxygen concentration. [*Ref: 40 CFR §62.16722(a)(2); 40 CFR §63.1961(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 District. [*Ref: 40 CFR §62.16722(a)(2)(i); 40 CFR §63.1961(a)(2)(i)*]

2. *Oxygen:* Unless an alternative test method has been approved by the District, the oxygen level shall be determined by an oxygen meter using EPA Method 3A of Appendix A-7 of 40 CFR Part 60, EPA Method 3C of Appendix A-7 of 40 CFR Part 60, or ASTM D6522-11, except that: [*Ref: 40 CFR §62.16722(a)(2)(ii); 40 CFR §63.1961(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 ±10%.

3. *Oxygen Alternative:* A portable gas composition analyzer may be used to monitor the oxygen levels provided: [*Ref: 40 CFR §62.16722(a)(2)(iii); 40 CFR §63.1961(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.

vii. *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 a 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)*]

viii. *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)*]

ix. *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)*]

x. *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 CO_2 (% 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)*]

xi. *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 a 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 CO_2 (% 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 §62.16726(e)(2); 40 CFR §63.1983(e)(2)*]

x. *Wellhead Temperature and Pressure Root Cause Analysis Records:* For any wellhead temperature or pressure root cause analysis listed below for which corrective actions are required, the permittee shall maintain the following records: *[Ref: 40 CFR §62.16726(e)(5); 40 CFR §63.1983(e)(3)-(5)]*

1. For any Root Cause Analysis for which corrective actions are required by Conditions 9.C.2.b.iii.2.a, 9.C.2.b.iv.2.a, or 9.C.2.b.v.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 Conditions 9.C.2.b.iii.2.b, 9.C.2.b.iv.2.b, or 9.C.2.b.v.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 positive pressure reading or 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 Conditions 9.C.2.b.iii.2.c, 9.C.2.b.iv.2.c, or 9.C.2.b.v.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 positive pressure reading or 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 District.

xi. *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 exceeded 20% or oxygen level exceeded 5% . [*Ref: 40 CFR §62.16726(e)(2); 40 CFR §63.1983(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.

d. Reporting: On a semi-annual basis, a report detailing the previous six month's activities shall be provided to the District. The report shall list all the data required by the Condition 9.C.8 of this permit.

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

District Device No.	Name
398051	Enclosed Ground Flare
006910	Backup Enclosed Ground Flare
105960	Gas Flow Measurement System

a. Emission Limits: Mass emissions from the enclosed ground flares 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. *Enclosed Ground Flare (Device ID: 398051):*

1. *Oxides of Nitrogen (NO_x) Emission Limits:* Emissions of NO_x (as NO_2) from the Enclosed Ground Flare (Device ID: 398051) shall not exceed a stack emission rate of 0.050 lb/MMBtu. Compliance with this condition shall be based on the source testing condition of this permit. [*Ref: ATC 15730*]

2. *Reactive Organic Compounds Emission Limits*: Emissions of ROC from the Enclosed Ground Flare (Device ID: 398051) shall not exceed a stack emission rate of 0.0559 lb/MMBtu. Compliance with this condition shall be based on the source testing condition of this permit. [*ATC 15730*]

3. *Carbon Monoxide Emission Limits*: Emissions of CO from the Enclosed Ground Flare (Device ID: 398051) shall not exceed a stack emission rate of 0.200 lb/MMBtu. Compliance with this condition shall be based on the source testing condition of this permit.

ii. *Backup Enclosed Ground Flare (Device ID: 006910):*

1. *Oxides of Nitrogen (NO_x) Emission Limits:* Emissions of NO_x (as NO_2) from the Backup Enclosed Ground Flare (Device ID: 006910) shall not exceed 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/PTO 10318*]

2. *Reactive Organic Compounds Emission Limits:* Emissions of ROC from the Backup Enclosed Ground Flare (Device ID: 006910) shall not exceed a stack emission rate of 0.080 lb/MMBtu. Compliance with this condition shall be based on the source testing condition of this permit. [*Ref: ATC/PTO 10318*]

3. *Carbon Monoxide Emission Limits*: Emissions of CO from the Backup Enclosed Ground Flare (Device ID: 006910) shall not exceed a stack emission rate of 0.400 lb/MMBtu. Compliance with this condition shall be based on the source testing condition of this permit. [*Ref: ATC/PTO 10318*]

iii. *LMR Methane Control Requirements*: The Enclosed Ground Flares (Device ID: 398051 & 006910) shall reduce methane by 99 percent by weight. Compliance with this condition shall be based on the source testing conditions of this permit. [*Ref: CCR Subchapter 10,Article 4, Subarticle 6 §95464(b)(2)(A)1; 40 CFR 62.1100(b)(7)*]

iv. *Subpart AAAA NMOC Control Requirements.* Emissions of NMOC from the Enclosed Ground Flares (Device ID: 398051 & 006910) shall not exceed a NMOC stack concentration of 20 ppmvd at 3% O_2 (as hexane) or reduce NMOC by 98% (mass basis). Compliance with this condition shall be based on the source testing condition of this permit. [*40 CFR 63.1959(b)(2)(iii)(B)*]

b. Operational Limits: The enclosed ground flares 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 ground flares shall not exceed the values listed below. These limits are based on the design rating of the enclosed ground flares. Compliance with heat input limits shall be based on the fuel meter readings and the most recent gas analysis. [*Ref: ATC 15730; ATC/PTO 10318*]

Enclosed Ground Flare (Device ID: 398051)

Hourly Heat Input	51.600	MMBtu/hour
Daily Heat Input	1,238.400	MMBtu/day
Annual Heat Input	452,016.000	MMBtu/yea

Backup Enclosed Ground Flare (Device ID: 006910)

Hourly Heat Input	13.500	MMBtu/hour
Daily Heat Input	324.000	MMBtu/day
Annual Heat Input	118,260.000	MMBtu/year

ii. *Fuel Type Limit:* The enclosed ground flares shall only combust LFG and propane. [*Ref: ATC 15730; ATC/PTO 10318*]

iii. *LFG Sulfur Content:* The total sulfur content (calculated as H_2S at standard conditions, 60 °F and 14.7 psia) of the LFG burned in the enclosed ground flares shall not exceed 6.3 grains per 100 cubic ft (100 ppmvd). [*Ref: ATC 15730; ATC/PTO 10318*]

iv. *Propane Pilot Gas:* Propane shall be used as the enclosed ground flares' 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 15730; PT-70/Reeval 10318-R3*]

v. *Flame Present:* A flame shall be present at all times combustible gases are routed to the enclosed ground flares. [*Ref: ATC 15730; ATC/PTO 10318*]

vi. *Visible Emissions*: The enclosed ground flares 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. *Flare Ignition System Operation*: The flare outlet for the enclosed ground flares shall be equipped with an automatic ignition system including a pilot-light gas source or equivalent system, or shall operate with a pilot flame present at all times with the exception of purging events for automatic ignited equipped flares. [*Ref: ATC 15730; ATC/PTO 10318*]

viii. *Thermocouple Selection*: The thermocouples used to monitor and control the enclosed ground flares' combustion temperature shall be selected based on the LFG heat input rate, and the procedure described in the operation and maintenance manual for each enclosed ground flare. [*Ref: ATC 15730; ATC/PTO 10318*]

ix. *Flare Station Controller*: Only one of the enclosed ground flares shall operate at any time. A programmable logic controller (PLC) shall control the operation of the enclosed ground flares as well as the transportation of the LFG through the single flare LFG blower. The PLC program shall have an interlock mechanism that prohibits the simultaneous operation of both enclosed ground flares. [*Ref: ATC 15730; ATC/PTO 10318*]

x. *Flare Operational Temperature:* The enclosed flares shall be operated within the parameter ranges established during the most recent source test. Except for startup and shutdown periods, the enclosed flares combustion temperatures shall not operate less than 28 °C (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)*]

xi. *Flare Downtime:* Each flare shall be operating at all times when combustible gases are routed through the flare.

xii. *Collection or Control System Operation Downtime:* In the event the collection or control system is not operating, the gas mover system must be shut down and all valves in the collection and control system contributing to venting of the gas to the atmosphere must be closed within 1 hour of the collection or control system not operating. Efforts to repair the collection or control system must be initiated and completed in a manner such that downtime is kept to a minimum, and the collection and control system must be returned to operation.

xi. *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)*]

xii. *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)*]

xiii. *Flare Features:* The enclosed flares 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 ground flares:

i. *LFG Volume:* The permittee shall monitor the daily and annual volume of LFG combusted in each enclosed ground flare (in units of scf). The enclosed ground flares 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 data recorder and continuous monitoring devices shall be installed, calibrated, maintained, and operated according to the manufacturer's specifications. A valid hour of data must have measured values for at least three 15-minute monitoring periods during that hour. [*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 each enclosed flare (in units of MMBtu/day) based on the LFG daily volume (scf/day) and most recently measured LFG HHV (Btu/scf). [*Ref: ATC 15730; PT-70/Reeval 10318-R4*]

iii. *Operational Temperature:* The enclosed ground 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. The temperature data shall be averaged for three continuous hourly periods (block average) to assess the required compliance with flare temperature limits. The three-hour data must comprise of three consecutive hours of valid data and each valid hour of data shall have measured values for at least three 15-minute monitoring periods during that hour. The enclosed ground flare's set point temperature and selected thermocouples

shall be marked and logged whenever it is changed as allowed under this permit. [*Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95469(b)(1); 40 CFR 62.1100(b)(7)*]

iv. *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)*]

v. *Shutdown:* For all enclosed ground flare downtimes in excess of one hour, monitor the reason for the downtime, and the length of time enclosed ground 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:* 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. 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)*]

vii. *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)*]

viii. *Flare Flame:* The presence of a flame in each enclosed ground flare shall be continuously monitored by a self-checking UV flame detector or equivalent device that detects the presence of a pilot flame. [*Ref: ATC 15730; PT-70/Reeval 10318-R2*]

ix. *LFG Sampling*: On a quarterly basis, a sample of the LFG shall be extracted downstream of the collection system blower and analyzed for total sulfur content (ppmv), hydrogen sulfide (ppmv), and HHV (Btu/scf) using appropriate ASTM sampling and analysis techniques. [*Ref: ATC 15730; ATC/PTO 10318*]

x. *Visible Emissions*: Once per calendar quarter for each enclosed ground flare, the permittee shall perform a visible emissions inspection for a one-minute period while the enclosed ground flare is operating. If an enclosed ground flare does not operate during a calendar quarter, no monitoring is required. If visible emissions are detected from an enclosed ground flare during any inspection, then an USEPA Method 9 visible emissions evaluation (VEE) shall be performed immediately for a six-minute period for that flare. CSML staff or their consultant, certified in VEE, shall perform the VEE. A visible emissions inspection is not required for an enclosed ground flare if that flare did not burn LFG during the calendar quarter. [*Ref: District Rule 302*]

xi. *Calibration and Maintenance Logs:* Calibration and maintenance of the enclosed ground flares' monitoring devices and meters, including the results of each calibration.

xii. *Hours of Operation*: The permittee shall monitor the daily and annual hours of operations for each enclosed ground flare. [*Ref: ATC 15730; ATC/PTO 10318*]

xiii. *Thermocouple Switch Points*: The permittee shall monitor the parameters used for the programmed thermocouple switch points (high, middle, and low LFG flow) and when thermocouples were replaced. [*Ref: ATC 15730; PT-70/Reeval 10318-R3*]

d. Recordkeeping: The following records for the enclosed ground flares 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 each enclosed ground flare (in units of scf). [*Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95469(b)(1)(B); 40 CFR 62.1100(b)(7)*]

ii. *Flare Operational Temperature*: All block three-hour periods of enclosed ground flare operations 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)*]

iii. *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)*]

iv. *Shutdown:* All enclosed ground flare downtimes in excess of one hour, the reason for the downtime, and the length of time the enclosed ground 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:* 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)*]

vi. *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)*]

vii. *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)*]

viii. *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)*]

ix. *Flare Flame*: The date and time whenever the flame detector indicates the loss of a flame in either of the enclosed ground flares, the corrective actions taken, and the date and time when the flare was restarted. [*Ref: ATC 15730; ATC/PTO 10318*]

x. *LFG Sampling:* Results of the quarterly measurements of the LFG for total sulfur content (ppmv), hydrogen sulfide (ppmv), and HHV (Btu/scf). [*Ref: ATC/PTO 10318*]

xi. *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*]

xii. *Calibration and Maintenance:* Records of calibration and maintenance of the enclosed ground flares' monitoring devices and meters, including the results of each calibration.

xiii. *Hours of Operation*: Daily and annual records of the hours of operation for each enclosed ground flare. [*Ref: ATC 15730; ATC/PTO 10318*]

xiv. *Thermocouple Switch Points*: Records of the parameters used for the programmed thermocouple switch points (high, middle, and low flow) and when thermocouples were replaced. [*Ref: PT-70/Reeval 10318-R3*]

e. Reporting: On a semi-annual basis, a report detailing the previous six month's activities shall be provided to the District. The report shall list all the data required by the Condition 9.C.8 of this permit.

f. Out of Service Flare: Except as provided for in Section (i) below, the permittee shall maintain Flare No. 2 (Device ID: 109207) in an out of service state. An out of service state is defined as being completely disconnected from all gas collection lines and fuel sources at all times. If, at any time, Flare No. 2 (Device ID: 109207) does not meet this out of service definition, the equipment shall be deemed in direct violation of the permit. In addition, the following requirements apply:

i. *Inspections:* The permittee shall visually inspect Flare No. 2 (Device ID: 109207) once per quarter to confirm that the equipment has remained disconnected from all fuel lines. Each inspection shall be recorded in a log which includes the date of inspection, the District Device ID, the name of the person completing the inspection, and the signature of the responsible official confirming the inspection has been completed and that the equipment was not operated.

ii. *Operation:* Prior to operating Flare No. 2 (Device ID: 109207), the permittee shall submit an application for an Authority to Construct (ATC) permit and obtain an ATC permit from the District.

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

District Device No.	Name
109213	Condensate Knockout 1
393039	Condensate Knockout 2
105961	Condensate Holding Tank
103977	Air Compressor
390417	Leachate Holding Tanks
390416	Leachate Pumps

a. Emission Limits: Mass emissions from the condensate and leachate management systems equipment shall not exceed the limits listed in Table 5.2-3. Compliance with this condition shall be based on the operational, monitoring, recordkeeping, and reporting conditions in this permit. [*Ref: District Condensate Disposal Letter 11-5-2010*]

b. Operational Limits: The condensate and leachate management systems equipment permitted herein is subject to the following operational restrictions listed below:

i. *Nuisance*: Per District Rule 303, the use of LFG condensate and leachate for dust suppression shall not create a public nuisance. If the District or the City of Santa Maria receives any complaints of nuisance odors from CSML, the use of LFG condensate and leachate for dust suppression shall cease until the District provides written approval that these activities may resume. [*Ref: District Condensate Disposal Letter 11-5-2010; District Rule 303*]

c. Monitoring: The following monitoring conditions apply to the condensate and leachate management system equipment:

i. *Sampling*: On a quarterly basis, a sample of the LFG condensate shall be extracted from the condensate holding tank and analyzed for ROC content using EPA Method 8260C. Likewise, on a quarterly basis, a sample of leachate shall be extracted from one of the two leachate holding tanks and analyzed for ROC content using EPA Method 8260C. [*Ref: District Condensate Disposal Letter 11-5-2010*]

ii. *Disposal*: On a daily basis, the permittee shall monitor the quantity of disposed condensate and leachate, and the method of disposal (incinerated, taken off-site, or dust suppression). The permittee shall note which of the enclosed ground flares was used for condensate incineration. If the average daily condensate injection rate to either flare exceeds 1.0 gallon per minute, the permittee shall notify the District within three days and perform a source test in accordance with the District's *Source Test Procedures Manual* (revised May 1990 and any subsequent revisions) if required in writing by the District. The daily volume of LFG condensate and leachate used for dust suppression shall be measured by either:

1. A meter on the condensate holding tank/leachate holding tank if the liquid is loaded from the storage tank into the spray truck, or

2. By an inline meter on the tank truck hose if condensate/leachate is drawn from sumps directly into the spray truck.

It will be assumed that all condensate and leachate is applied on the day it is loaded into the spray truck. [*Ref: District Condensate Disposal Letter 11-5-2010; ATC/PTO 10318*]

iii. *Calibration and Maintenance*: Calibration and maintenance of the condensate and leachate management monitoring devices and meters, including the results of each calibration.

d. Recordkeeping: The following records for the condensate and leachate management systems equipment shall be maintained by the permittee and shall be made available to the District upon request:

i. *Sampling*: Results of the quarterly measurements of the LFG condensate and leachate for ROC content. [*Ref: District Condensate Disposal Letter 11-5-2010*]

ii. *Disposal*: Daily records shall be maintained of the quantity of disposed condensate and leachate, and the method of disposal. [*Ref: District Condensate Disposal Letter 11-5-2010*]

iii. *Calibration and Maintenance*: Records of calibration and maintenance of the condensate and leachate management monitoring devices and meters, including the results of each calibration.

e. Reporting: On a semi-annual basis, a report detailing the previous six month's activities shall be provided to the District. The report shall list all the data required by the Condition 9.C.8 of this permit.

C.5 **Diesel Fired Engines.** The following equipment items are included in this emissions category:

District Device No.	Name
107057	Firewater Engine
107058	E/S Diesel Generator 1
398052	E/S Diesel Generator 2

a. Emission Limits: Mass emissions from the emergency standby generators shall not exceed the limits listed in Table 5.2-3. The firewater engine is not subject to emission limits. Compliance with this condition shall be based on the operational, monitoring, recordkeeping, and reporting conditions in this permit.

b. Operational Limits: The following operational restrictions apply:

i. *E/S Diesel Generator 1 (Device ID: 107058)* and *Firewater Engine (Device ID: 107057)*:

1. *Maintenance Requirements:* Existing emergency compression ignition RICE shall comply with the following:

a. Change oil and filter every 500 hours of operation or annually, whichever comes first. Alternatively, the permittee may utilize an oil analysis program specified in 40 CFR 63 Subpart ZZZZ §63.6625(i). If all the requirements detailed in this section of the regulation are satisfied, the permittee shall not be required to change the oil. [*Ref: 40 CFR 63 Subpart ZZZZ Table 2.d*]

b. Inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary. [*Ref: 40 CFR 63 Subpart ZZZZ Table 2.d*]

c. Inspect all hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary. [*Ref: 40 CFR 63 Subpart ZZZZ Table 2.d*]

2. *Startup and Shutdown:* Minimize the emergency standby electrical generator engine's time spent at idle and minimize the engine's startup time at startup to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes, after which time the non-startup emission limitations apply. [*Ref: 40 CFR 63 Subpart ZZZZ §63.6625(h); 40 CFR 63 Subpart ZZZZ Table 2.c*]

3. *Maintenance Checks*: The emergency standby generator engine and firewater engine may be operated for maintenance checks and readiness testing, provided that the tests are recommended by federal, state or local government, the manufacturer, the vendor, the regional transmission organization or equivalent balancing authority and transmission operator, or the insurance company associated with the engine. [*Ref: 40 CFR 63 Subpart ZZZZ §63.6640(f)(2)(i)*]

ii. *E/S Diesel Generator 2 (Device ID: 398052):*

1. *Maintenance & Testing:* The emergency standby generator subject to this permit shall not be operated for more than 2 hours per day and 50 hours per year for maintenance and testing purposes *[Ref: Stationary Compression Ignition Engines ATCM §93115.6(a)(3), ATC 15730]*

2. *Impending Rotating Outage Use:* The emergency standby generator engine subject to this permit may be operated in response to the notification of an impending rotating outage if all the conditions cited in the ATCM are met. [*Ref: Stationary Compression Ignition Engines ATCM §93115.6(a)(2), ATC 15730*]

3. *Fuel and Fuel Additive Requirements:* The permittee may only add fuel and/or fuel additives to the emergency standby generator engine and firewater engine, or any fuel tank directly attached to the engine that comply with the ATCM. [*Ref: Stationary Compression Ignition Engines ATCM §93115.5(a)(5), ATC 15730*]

c. Monitoring: The following monitoring conditions apply:

i. *E/S Diesel Generator 1 (Device ID: 107058)* and *Firewater Engine (Device ID: 107057)*:

1. *Engine Maintenance*: The permittee shall monitor the frequency of oil and filter changes, and the inspections of the air cleaner, hoses, and belts for each engine. This shall include the engines' hours of operation between the oil changes and the various inspections. [*Ref: 40 CFR 63 Subpart ZZZZ Table 2.c*]

2. *Hours of Operation*: For each engine, the permittee shall monitor how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. [*Ref: 40 CFR 63 Subpart ZZZZ §63.6655(f)*]

ii. *E/S Diesel Generator 2 (Device ID: 398052):*

1. *Non-Resettable Hour Meter:* The stationary emergency standby diesel-fueled engine shall be equipped with 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 owner or operator's compliance history. [*Ref: Stationary Compression Ignition Engines ATCM §93115.10(d)(1, ATC 15730)*]

d. Recordkeeping: The permittee shall record and maintain the information listed below for the emergency standby generator engines and firewater engine. Log entries shall be retained for a minimum of 36 months from the date of entry. Log entries made within 24 months of the most recent entry shall be retained on-site, either at a central location or at the engines' location, and made immediately available to the District staff upon request. Log entries made from 25 to 36 months from most recent entry shall be made available to District staff within five working days from request. District Form ENF-92 (*Diesel-Fired Emergency Standby Engine Recordkeeping Form*) can be used for this requirement.

i. *E/S Diesel Generator 1 (Device ID: 107058)* and *Firewater Engine (Device ID: 107057)*:

1. The date of each emergency standby generator engine and firewater engine oil change, the number of hours of operation since the last oil change, and the date and results of each oil analysis. [*Ref: 40 CFR 63 Subpart ZZZZ Table 2.d*]

2. The date of each emergency standby generator engine and firewater engine air filter inspection and the number of hours of operation since the last air filter inspection. Indicate if the air filter was replaced as a result of the inspection. [*Ref: 40 CFR 63 Subpart ZZZZ Table 2.d*]

3. The date of each emergency standby generator engine and firewater engine hose and belts inspection and the number of hours of operation since the last hose and belt inspection. Indicate if any hose or belt was replaced as a result of the inspection. [*Ref: 40 CFR 63 Subpart ZZZZ Table 2.d*]

4. For each engine, the hours which were spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-emergency operation. [*Ref: 40 CFR 63 Subpart ZZZZ §63.6655(f)*]

ii. *E/S Diesel Generator 2 (Device ID: 398052):*

1. emergency use hours of operation. [*Ref: Stationary Compression Ignition Engines ATCM §93115.10(f)(1)(A), ATC 15730*]

2. maintenance and testing hours of operation. [*Ref: Stationary Compression Ignition Engines ATCM §93115.10(f)(1)(B), ATC 15730*]

3. hours of operation for emission testing to show compliance with the ATCM {if specifically allowed for under this permit}. [*Ref: Stationary Compression Ignition Engines ATCM §93115.10(f)(1)(C), ATC 15730*]

4. hours of operation for all uses other than those specified in items 9.C.5(d).ii.(1) through (3) above along with a description of what those hours were for. [*Ref: Stationary Compression Ignition Engines ATCM §93115.10(f)(1)(F), ATC 15730*]

5. fuel purchase records that demonstrate that only fuel meeting the requirements of the ATCM is purchased and added to each emergency standby engine, or to any fuel tank directly attached to each emergency standby engine. [*Ref: Stationary Compression Ignition Engines ATCM §93115.10(f)(1)(H), ATC 15730*]

e. Reporting: On a semi-annual basis, a report detailing the previous six month's activities shall be provided to the District. The report shall list all data required by the Condition 9.C.8 of this permit.

C.6 S**olvent Usage.** The following equipment items are included in this emissions category:

District Device No.	Name
391485	Solvent Use

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 10318*]

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 10318*]

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 10318*]

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 10318*]

c. Reporting: On a semi-annual basis, a report detailing the previous six month's activities shall be provided to the District. The report shall list all data required by the 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 Executive Officer within five business days upon request. These records and reports shall be kept at a location within the State of California. [*Ref: 40 CFR Part 63 Subpart OOO §62.16726(a); CCR Subchapter 10, Article 4, Subarticle 6 §95470(a)(3)*]

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 Reporting*:

1. The concentration, date, time, and location of each instantaneous monitoring reading in excess of 500 ppmv (measured as methane). [*40 CFR §63.1981(h)(1)*

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. 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)*]

ii. *Integrated Surface Emissions Monitoring Reporting:*

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); 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 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.

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 report 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 and Pressure Corrective Action Analysis:* For any corrective action analysis for which corrective actions are required in Condition 9.C.2.b.iii.2 or 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 §62.16724(h)(7); 40 CFR §63.1981(h)(7)*]

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 exceeded 20% or oxygen level exceeded 5% . [*Ref: 40 CFR Subpart OOO §62.16726(e)(2); 40 CFR Subpart AAAA §63.1983(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 CO_2 (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 CO_2 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.

c. Enclosed Ground Flares:

i. *LFG Volume*: Records of the daily and annual volume of LFG combusted in each enclosed ground 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 10318-R4*]

iii. *Flare Operational Temperature*: All block three-hour periods of enclosed ground flare operations 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 ground flare downtimes in excess of one hour, the reason for the downtime, and the date, time and total length of time the enclosed ground 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 report the following records for 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 during the reporting period. [*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 either of the enclosed ground flares, the corrective actions taken, and the date and time when the flare was restarted. [*Ref: ATC/PTO 10318; PT-70/Reeval 10318-R2*]

xi. *LFG Sampling:* Results of the quarterly measurements of the LFG for total sulfur content (ppmv), hydrogen sulfide (ppmv), and HHV (Btu/scf). [*Ref: ATC/PTO 10318*]

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 ground flares' monitoring devices and meters, including the results of each calibration.

xiv. *Hours of Operation*: Daily and annual records of the hours of operation for each enclosed ground flare. [*Ref: ATC 15730; ATC/PTO 10318*]

xv. *Thermocouple Switch Points*: Records of the parameters used for the programmed thermocouple switch points (high, middle, and low flow) and when thermocouples were replaced. [*Ref: PT-70/Reeval 10318-R3*]

d. Condensate and Leachate Management Systems:

i. *Sampling*: Results of the quarterly measurements of the LFG condensate and leachate for ROC content. [*Ref: District Condensate Disposal Letter 11-5-2010*]

ii. *Disposal*: Daily records of the quantity of disposed condensate and leachate, and the method of disposal. [*Ref: District Condensate Disposal Letter 11-5-2010*]

iii. *Calibration and Maintenance*: Records of calibration and maintenance of the condensate and leachate management monitoring devices and meters, including the results of each calibration.

e. Diesel Fired Engines:

i. *E/S Diesel Generator 1 (Device ID: 107058)* and *Firewater Engine (Device ID: 107057)*

1. The date of each emergency standby generator engine and firewater engine oil change, the number of hours of operation since the last oil change, and the date and results of each oil analysis. [*Ref: 40 CFR 63 Subpart ZZZZ Table 2.d*]

2. The date of each emergency standby generator engine and firewater engine air filter inspection and the number of hours of operation since the last air filter inspection. Indicate if the air filter was replaced as a result of the inspection. [*Ref: 40 CFR 63 Subpart ZZZZ Table 2.d*]

3. The date of each emergency standby generator engine and firewater engine hose and belts inspection and the number of hours of operation since the last hose and belt inspection. Indicate if any hose or belt was replaced as a result of the inspection. [*Ref: 40 CFR 63 Subpart ZZZZ Table 2.d*]

4. For each engine, the hours which were spent for emergency operation, including what classified the operation as emergency and how many hours were spent for non-emergency operation. [*Ref: 40 CFR 63 Subpart ZZZZ §63.6655(f)*]

ii. *E/S Diesel Generator 2 (Device ID: 398052):*

1. emergency use hours of operation. [*Ref: Stationary Compression Ignition Engines ATCM §93115.10(f)(1)(A)*]

2. maintenance and testing hours of operation. [*Ref: Stationary Compression Ignition Engines ATCM §93115.10(f)(1)(B)*]

3. hours of operation for emission testing to show compliance with the ATCM {if specifically allowed for under this permit}. [*Ref: Stationary Compression Ignition Engines ATCM §93115.10(f)(1)(C)*]

4. initial start-up hours {if specifically allowed for under this permit}. [*Ref: Stationary Compression Ignition Engines ATCM §93115.10(f)(1)(D)*]

5. hours of operation for all uses other than those specified in items 9.C.5(d).ii.a through d above along with a description of what those hours were for. [*Ref: Stationary Compression Ignition Engines ATCM §93115.10(f)(1)(F)*]

6. fuel purchase records that demonstrate that only fuel meeting the requirements of the ATCM is purchased and added to each emergency standby engine, or to any fuel tank directly attached to each emergency standby engine. [*Ref: Stationary Compression Ignition Engines ATCM §93115.10(f)(1)(H)*]

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 10318*]

g. General Reporting Requirements:

i. *Breakdown and Variances*: Breakdowns and variances reported or obtained per Regulation V along with the excess emissions that accompanied each occurrence. [*Ref: District Rule 504; District Rule 505; District Rule 506*]

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.

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.

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 stack emissions testing of air emissions and process parameters listed in Table 4.3 for each enclosed ground flare every 24 months except as provided below. If a flare has operated less than 200 hours in each of the two previous calendar years, CSML may extend the source test deadline by 12 months. If 36 months after the previous source test, the flare has still operated less than 200 hours in each of the three previous calendar years, CSML may extend the source test deadline by another 12 months. Regardless of the total hours of operation, each flare shall be tested at least once every 48 months. 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. June 1st shall be used as the anniversary date.

b. 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.

c. 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.

d. 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 15730; ATC/PTO 10318*]

C.10 **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 4.9 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 15730; ATC/PTO 10318*]

C.11 **Process Stream Sampling and Analysis.** The permittee shall sample and analyze the process streams listed in Section 4.10 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.12 **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 shall obtain an ATC before installing or operating a temporary replacement engine.

C.13 **Permanent Engine Replacements.** The permittee may install a new engine in place of an engine permitted herein without first obtaining an ATC only if the requirements (a – f) listed herein are satisfied.

a. The permitted stationary diesel-fueled engine is an E/S engine, a firewater pump engine or an engine used for an essential public service (as defined by the District).

b. The permitted engine breaks down, cannot be repaired, and needs to be replaced by a new permanent engine.

c. The facility provides "good cause" (in writing) for the need to install a new permanent engine before an ATC can be obtained for a new engine.

d. The new permanent engine shall comply with the requirements of the ATCM for new engines. A temporary replacement engine may be used while the new permanent engine is being procured only if it meets the requirements of the *Temporary Engine Replacements - DICE ATCM* permit condition.

e. An ATC application for the new permanent engine shall be submitted to the District within 15 days of the existing engine being replaced and the ATC shall be obtained no later than 180 days from the date of engine replacement (these timelines include the use of a temporary engine).

f. For each new permanent engine installed pursuant to this condition, the permittee shall submit a completed *Permanent IC Engine Replacement Notification* form (Form ENF-96) within 14 days of the new 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).

Any engine installed pursuant to this condition shall be immediately shut down if the District determines that the requirements of this condition have not been met.

C.14 **Process Monitor Calibration and Maintenance Plan.** All process monitoring devices listed in Section 4.10 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.15 **Surface Monitoring, Maintenance, and Recordkeeping Plan.** The permittee shall implement a *SMMR Plan* for the life of the project. This plan shall address the 40 CFR Part 62 Subpart OOO and California Methane Emissions from Municipal Solid Waste Landfills regulation surface emissions monitoring requirements. The *SMMR Plan* shall be updated and submitted to the District for approval within 60 days of final permit issuance to address the new 40 CFR Part 62 Subpart OOO requirements.

C.16 **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 updated and submitted to the District by a certified professional engineer for approval within 60 days of final permit issuance.

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.17 **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 May 22, 2018)

b. *Surface Monitoring Maintenance and Recordkeeping Plan* (approved June 19, 2019)

c. *Active Collection System Design (ACSD) Plan – Revision 7* (approved 12/9/2024)

C.18 **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.19 **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.

District-approved alternative compliance options for these requirements were granted in a December 26, 2014 letter to the permittee and can be found in the administrative files of this permit and facility.

D.1 **Diesel Fired Engines.** The following equipment items are included in this emissions category:

District Device No.	Name
107057	Firewater Engine
107058	E/S Diesel Generator 1

a. Emission Limits: Mass emissions from the emergency standby generator and firewater engine listed above 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.

b. Operational Limits: The emergency standby generator and firewater engine permitted herein are subject to the following operational restrictions listed below:

i. *Fire Water Engine Use:* The firewater engine subject to this permit shall only be operated the number of hours necessary to comply with the testing requirements of NFPA 25 "Standard for the Inspection, Testing, and Maintenance of Water-Based Fire Protection Systems". [*Ref: Stationary Compression Ignition Engines ATCM §93115.3(n)*]

ii. *Emergency Standby Engine Use:* The emergency standby generator subject to this permit shall not be operated for more than 2 hours per day and 20 hours per year for maintenance and testing purposes [*Ref: PT-70/Reeval 10318-R2*]

iii. *Fuel and Fuel Additive Requirements:* The permittee may only add fuel and/or fuel additives to the emergency standby generator engine and firewater engine, or any fuel tank directly attached to the engine that comply with the ATCM. [*Ref: Stationary Compression Ignition Engines ATCM §93115.5(b)(5)*]

iv. *Impending Rotating Outage Use:* The emergency standby generator engine subject to this permit may be operated in response to the notification of an impending rotating outage if all the conditions cited in the ATCM are met. [*Ref: Stationary Compression Ignition Engines ATCM §93115.6(a)(2)*]

c. Monitoring: The following monitoring conditions apply to the emergency standby generator and firewater engine:

i. *Non-Resettable Hour Meter*: The emergency standby generator engine and firewater engine subject to this permit shall each 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: Stationary Compression Ignition Engines ATCM §93115.10(d)(1)*]

d. Recordkeeping: The permittee shall record and maintain the information listed below for the emergency standby generator engine and firewater engine. Log entries shall be retained for a minimum of 36 months from the date of entry. Log entries made within 24 months of the most recent entry shall be retained on-site, either at a central location or at the engines' location, and made immediately available to the District staff upon request. Log entries made from 25 to 36 months from most recent entry shall be made available to District staff within five working days from request. District Form ENF-92 (*Diesel-Fired Emergency Standby Engine Recordkeeping Form*) can be used for this requirement.

i. emergency use hours of operation. [*Ref: Stationary Compression Ignition Engines ATCM §93115.10(f)(1)(A)*]

ii. maintenance and testing hours of operation. [*Ref: Stationary Compression Ignition Engines ATCM §93115.10(f)(1)(B)*]

iii. hours of operation for emission testing to show compliance with the ATCM {if specifically allowed for under this permit}. [*Ref: Stationary Compression Ignition Engines ATCM §93115.10(f)(1)(C)*]

iv. hours of operation for all uses other than those specified in items 9.C.5(d).i through iii above along with a description of what those hours were for. [*Ref: Stationary Compression Ignition Engines ATCM §93115.10(f)(1)(F)*]

v. fuel purchase records that demonstrate that only fuel meeting the requirements of the ATCM is purchased and added to each emergency standby engine, or to any fuel tank directly attached to each emergency standby engine. [*Ref: Stationary Compression Ignition Engines ATCM §93115.10(f)(1)(H)*]

D.2 **Recordkeeping.** The permittee shall maintain copies of the records and reports required by Section 9.D for at least five years, whether in paper, electronic, or other format, and provide them to the Executive Officer within five business days upon request. Records and reports shall be kept at a location within the State of California. [*Ref: CCR Subchapter 10, Article 4, Subarticle 6 §95470(a)(3)*]

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. Diesel Fired Engines:

i. emergency use hours of operation. [*Ref: Stationary Compression Ignition Engines ATCM §93115.10(f)(1)(A)*]

ii. maintenance and testing hours of operation. [*Ref: Stationary Compression Ignition Engines ATCM §93115.10(f)(1)(B)*]

iii. hours of operation for emission testing to show compliance with the ATCM {if specifically allowed for under this permit}. [*Ref: Stationary Compression Ignition Engines ATCM §93115.10(f)(1)(C)*]

iv. hours of operation for all uses other than those specified in items 9.C.5(d).i through iii above along with a description of what those hours were for. [*Ref: Stationary Compression Ignition Engines ATCM §93115.10(f)(1)(F)*]

v. fuel purchase records that demonstrate that only fuel meeting the requirements of the ATCM is purchased and added to each emergency standby engine, or to any fuel tank directly attached to each emergency standby engine. [*Ref: Stationary Compression Ignition Engines ATCM §93115.10(f)(1)(H)*]

D.4 **Odorous Organic Sulfides**. The permittee shall not discharge into atmosphere H_2S 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.5 **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 shall obtain an ATC before installing or operating a temporary replacement engine.

D.6 **Permanent Engine Replacements.** The permittee may install a new engine in place of an engine permitted herein without first obtaining an ATC only if the requirements (a – f) listed herein are satisfied.

a. The permitted stationary diesel-fueled engine is an E/S engine, a firewater pump engine or an engine used for an essential public service (as defined by the District).

b. The permitted engine breaks down, cannot be repaired, and needs to be replaced by a new permanent engine.

c. The facility provides "good cause" (in writing) for the need to install a new permanent engine before an ATC can be obtained for a new engine.

d. The new permanent engine shall comply with the requirements of the ATCM for new engines. A temporary replacement engine may be used while the new permanent engine is being procured only if it meets the requirements of the *Temporary Engine Replacements - DICE ATCM* permit condition.

e. An ATC application for the new permanent engine shall be submitted to the District within 15 days of the existing engine being replaced and the ATC shall be obtained no later than 180 days from the date of engine replacement (these timelines include the use of a temporary engine).

f. For each new permanent engine installed pursuant to this condition, the permittee shall submit a completed *Permanent IC Engine Replacement Notification* form (Form ENF-96) within 14 days of the new 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).

Any engine installed pursuant to this condition shall be immediately shut down if the District determines that the requirements of this condition have not been met.

D.7 **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.8 **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.9 **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.

D.10 **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)*]

D.11 **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)*]

AIR POLLUTION CONTROL OFFICER

DATE

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

Agnieszka Letts	December 2, 2024		2/7/2025
AQ Engineer/Technician	Date	Supervisor	Date

Notes:

(a) This permit supersedes PT-70/Reeval 10318-R3, PTO Mod 10318-02, PTO 15160, ATC 15730, and ATC Mod 15730-01

(b) This permit directly incorporates PTO 15559 and PTO 15730

(c) Permit Triennial Reevaluation Due Date: May 2028

10.0 Attachments

10.1 Equipment List

10.2 List of Exempt/Insignificant Emissions Units

10.3 List of Off Permit Equipment

10.4 IDS Database Emission Tables

10.5 Facility Map

10.1 Equipment List

A PERMITTED EQUIPMENT

1 Municipal Solid Waste Landfill

Device ID #	**391484**	***Device Name***	**Municipal Solid Waste Landfill**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	290 acres of which 265 acres are for landfill use, 9.8 million cubic meter design capacity, 6.74 million tons of waste in place as of December 2021		

2 Landfill Gas Collection System

2.1 Landfill Gas Collection Wells

Device ID #	**105956**	***Device Name***	**Landfill Gas Collection Wells**
Rated Heat Input		*Physical Size*	106.00 Total Wells
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	106 wells as of December 2021, operated under negative pressure, installed in waste to extract landfill gas from the landfill, each well is connected to the landfill gas piping system		

2.2 Landfill Gas Collection Piping

Device ID #	**105957**	***Device Name***	**Landfill Gas Collection Piping**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	The piping links the collection wells to the blowers		

2.3 Landfill Gas Blower

Device ID #	**109208**	***Device Name***	**Landfill Gas Blower**
Rated Heat Input		*Physical Size*	15.00 Horsepower (Electric Motor)
Manufacturer	New York Blower	*Operator ID*	
Model	2606A	*Serial Number*	
Location Note			
Device Description			

2.4 Sumps

Device ID #	**393040**	***Device Name***	**Sumps**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	18 sumps as of December 2021		

3 Landfill Gas Control System

3.1 Backup Enclosed Ground Flare

Device ID #	**006910**	***Device Name***	**Backup Enclosed Ground Flare**
Rated Heat Input	13.500 MMBtu/Hour	*Physical Size*	
Manufacturer	Perennial Energy Inc	*Operator ID*	
Model	EF4-10.5	*Serial Number*	
Location Note			
Device Description	Used to combust landfill gas and condensate, equipped with automatic ignition system, propane pilot, an automatic temperature control system, thermocouples, and flame arrestor units to prevent flashback, dimensions: 6' diameter x 24' H		

3.2 Enclosed Ground Flare

Device ID #	**398051**	***Device Name***	**Enclosed Ground Flare**
Rated Heat Input	51.600 MMBtu/Hour	*Physical Size*	
Manufacturer	John Zink	*Operator ID*	Flare No. 3
Model	ZTOF	*Serial Number*	
Location Note			
Device Description	8 ft flare tip inside diameter. 100 ppmv sulfur content (as H2S). Knockout drum and two blowers installed with this flare.		

3.3 Gas Flow Measurement System

Device ID #	**105960**	***Device Name***	**Gas Flow Measurement System**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	System is used to measure and continuously record gas flow from the collection system to the enclosed ground flares		

4 LFG Condensate System

4.1 Condensate Knockout 1

Device ID #	**109213**	***Device Name***	**Condensate Knockout 1**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	Dimensions: 30" diameter x 96" H		

4.2 Condensate Knockout 2

Device ID #	**393039**	***Device Name***	**Condensate Knockout 2**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	Dimensions: 24" W x 96" H x 35.73" D		

4.3 Condensate Holding Tank

Device ID #	**105961**	***Device Name***	**Condensate Holding Tank**
Rated Heat Input		*Physical Size*	1200.00 Gallons
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	1,200 gallon capacity, dimensions: 5.1' diameter x 8.1' H, condensate is disposed of by injection into one of the enclosed ground flares, trucked from facility to approved disposal site, or used for onsite dust suppression; connected to carbon filter		

4.4 Air Compressor

Device ID #	**103977**	***Device Name***	**Air Compressor**
Rated Heat Input		*Physical Size*	10.00 Horsepower (Electric Motor)
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	Drives the pneumatic pump used to send the condensate from the tank to the enclosed ground flares		

5 Leachate System

5.1 Leachate Holding Tanks

Device ID #	**390417**	***Device Name***	**Leachate Holding Tanks**
Rated Heat Input		*Physical Size*	10000.00 Gallons
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	Two 10,000 gallon holding tanks, closed top, connected by a value to keep tank levels equal		

5.2 Leachate Pumps

Device ID #	**390416**	***Device Name***	**Leachate Pumps**
Rated Heat Input		*Physical Size*	
Manufacturer		*Operator ID*	
Model		*Serial Number*	
Location Note			
Device Description	Three electric pumps		

6 Firewater Engine

Device ID #	107057	*Maximum Rated BHP*	240.00
Device Name	Firewater Engine	*Serial Number*	45986955
Engine Use	Electrical Power	*EPA Engine Family Name*	
Manufacturer	Cummins	*Operator ID*	#9
Model Year	2000	*Fuel Type*	CARB Diesel - ULSD
Model	6CTA8.3-F1		
DRP/ISC?	No	*Healthcare Facility?*	No
Daily Hours		*Annual Hours*	
Location Note			
Device Description	Used to provide electrical power to the fire suppression system, diesel-fired, EPA Tier 1, equipped with a non-resettable hour meter		

7 E/S Diesel Generator 1

Device ID #	107058	*Maximum Rated BHP*	277.00
Device Name	E/S Diesel Generator 1	*Serial Number*	46078457
Engine Use	Electrical Power	*EPA Engine Family Name*	ICEXC0505ABA
Manufacturer	Cummin	*Operator ID*	#10
Model Year	2001	*Fuel Type*	CARB Diesel - ULSD
Model	6CTA8.3-G2		
DRP/ISC?	No	*Healthcare Facility?*	No
Daily Hours	2.00	*Annual Hours*	20
Location Note			
Device Description	Used to provide electrical power to the facility in the event of loss of power from the grid, diesel-fired, EPA Tier 1, equipped with a non-resettable hour meter		

8 E/S Diesel Generator 2

Device ID #	398052	*Maximum Rated BHP*	279.00
Device Name	E/S Diesel Generator 2	*Serial Number*	
Engine Use	Electrical Power	*EPA Engine Family Name*	LFPXL06.7DGS
Manufacturer	Generac	*Operator ID*	
Model Year	2020	*Fuel Type*	
Model	F4HE9685A*J		
DRP/ISC?	No	*Healthcare Facility?*	No
Daily Hours	2.00	*Annual Hours*	50
Location Note			
Device Description	Tier 3 certified engine used to provide electrical power to the flare station in the event of a power outage		

10.2 List of Exempt/Insignificant Emissions Units

1. Solvent use (wipe cleaning only)
2. Four propane storage tanks (Rule 202.V.8)
3. One 250-gallon and one 500-gallon diesel storage tanks (Rule 202.V.2)
4. One 120,000-gallon firewater tank (Rule 201.A)
5. One 10,000-gallon water tank (Rule 201.A)
6. Blasting (Rule 202.P.13)

10.3 List of Off Permit Equipment

1 Enclosed Ground Flare 2

Device ID #	**109207**	***Device Name***	**Enclosed Ground Flare 2**
Rated Heat Input	20.000 MMBtu/Hour	*Physical Size*	
Manufacturer	Perennial Energy Inc	*Operator ID*	
Model	FL-90-26-E	*Serial Number*	
Location Note			
Device Description	Dimensions: 7.5 foot diameter by 27 feet high. Unit is disconnected from gas and in an out-of-service state.		

10.4 IDS Database Emission Tables

PERMIT POTENTIAL TO EMIT

	NO_x	ROC	CO	SO_x	PM	PM_{10}	$PM_{2.5}$
lb/day	24.01	219.96	192.00	24.58	9.60	9..60	9.60
lb/hr							
TPQ							
TPY	4.38	40.14	35.04	4.49	1.75	1.75	1.75

FACILITY POTENTIAL TO EMIT

	NO_x	ROC	CO	SO_x	PM	PM_{10}	$PM_{2.5}$
lb/day	24.01	219.96	192.00	24.58	9.60	9..60	9.60
lb/hr							
TPQ							
TPY	4.38	40.14	35.04	4.49	1.75	1.75	1.75

FEDERAL POTENTIAL TO EMIT

	NO_x	ROC	CO	SO_x	PM	PM_{10}	$PM_{2.5}$
lb/day	24.01	28.32	192.00	24.58	9.60	9..60	9.60
lb/hr							
TPQ							
TPY	4.38	5.17	35.04	4.49	1.75	1.75	1.75

STATIONARY SOURCE POTENTIAL TO EMIT

	NO_x	ROC	CO	SO_x	PM	PM_{10}	$PM_{2.5}$
lb/day	76.02	261.57	452.05	25.66	14.86	14.86	14.86
lb/hr							
TPQ							
TPY	13.87	47.73	82.50	4.69	2.71	2.71	2.71

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.

10.5 Facility Map