



Company Name:	Aiken County Landfill Langley Site	Permit Writer:	Avery Allison
Agency Air Number:	0080-0138	Date:	DRAFT
Permit Number:	TV-0080-0138 v2.0		

DATE APPLICATION RECEIVED: October 03, 2024

DATE OF LAST INSPECTION: February 21, 2023

The flare was not operational due to maintenance during the inspection. The compliance status of the facility will be determined once the flare becomes operational.

PROJECT DESCRIPTION

This project is the renewal of the Title V operating permit for Aiken County Landfill Langley Site.

FACILITY DESCRIPTION

SIC CODE: 4953, Refuse Systems

NAICS CODE: 562212, Solid Waste Landfill

The Langley Landfill in Aiken County is a closed landfill. Information from the Bureau of Land and Waste Management indicates that the facility was originally constructed around 1974. It was permitted in 1984 and then closed in 2003. The facility provided information indicating that the facility stopped receiving waste in 1998 and provided information indicating the facility's size is significantly less than 1 million tons. The last increase to the permitted design volume for the facility occurred in 1993.

EMISSIONS

Facility wide controlled emissions for PM, PM₁₀, PM_{2.5}, NO_x, SO₂, and CO are from operation of the flare, therefore no uncontrolled emissions from these pollutants are shown. The facility wide uncontrolled emissions for VOCs are assumed to be 100% of NMOC emissions.

HAP Algorithm:

$$m_{HAP} \left[\frac{lb}{hr} \right] = C_{HAP} \left[\frac{mg}{m^3} \right] \times v_{Flare} [cfm] \times \frac{1 m^3}{35.29 ft^3} \times \frac{1 lb}{454,000 mg} \times \frac{60 min}{1 hr}$$

Where:

$m_{HAP,x}$ = mass flowrate of HAP [lb/hr]

C_{HAP} = concentration of HAP in landfill gas [mg/m³]

v_{Flare} = volumetric flowrate of the flare [cfm]

VOC Algorithm:

NMOC emissions are determined using EPA LandGEM Version 3.02. LandGEM uses site specific measurements, including waste acceptance rates and the potential methane generation rate to determine the annual methane and NMOC generation from decomposition of waste in the landfill.



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FACILITY WIDE EMISSIONS			
Pollutant	Uncontrolled	Controlled	PTE
	TPY	TPY	TPY
PM	--	13.40	13.40
PM ₁₀	--	13.40	13.40
PM _{2.5}	--	13.40	13.40
SO ₂	--	4.51	4.51
NO _x	--	26.81	26.81
CO	--	145.85	145.85
VOC (NMOC)	418.64	< 250.0	< 250.0
Highest HAP (Toluene, CAS #108-88-3)	30.52	< 10.0	< 10.0
Total HAP	51.59	< 25.0	< 25.0

REGULATIONS

Applicable - Section II(E) (Synthetic Minor)

The facility has synthetic minor limits on VOC, individual and combined HAP for the purpose of PSD and MACT avoidance.

Synthetic Minor Limits					
Permit ID	Equipment ID	Permit Issue Date	Pollutant	Emission Limit (TPY)	Explanation
0080-0138-CA	Facility Wide	April 27, 2007	VOC	Less than 250.00	Avoidance of PSD Requirements
0080-0138-CA	Facility Wide	April 27, 2007	HAP	Less than 10.00/25.00	Avoidance of Major Source Requirements for MACT AAAA

Not Applicable - Standard No. 1 (Emissions from Fuel Burning Operations)

The facility does not operate any sources of indirect fuel combustion subject to this regulation.

Applicable - Standard No. 3 (state only) (Waste Combustion and Reduction)

The facility operates a flare subject to Section III industrial incinerator PM and opacity limits of this standard. An exemption from the periodic PM testing has been granted for the flare due to emissions being less than the limit from this standard. An exemption from waste analysis has also been granted for the flare. An exemption from all of the Operator Training Requirements in S.C. Regulations 61-62.5, Standard No. 3, Section IX(C) has been granted for the flare. This is a State Only requirement.

Applicable - Standard No. 4 (Emissions from Process Industries)

The facility is subject to the 20% opacity limits of section IX. Since the facility has non-enclosed operations, Section X is also applicable. The facility is not subject to the PM limitations of Section VIII, Other Manufacturing, as the facility



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does not manufacture and operates the flare to control emissions. Additionally, the flare is already subject to and complies with the PM limits of Standard 3 for industrial incinerators.

Not Applicable - Standard No. 5 (Volatile Organic Compounds)

Landfills are not a source category covered by this standard.

Not Applicable - Standard No. 5.2 (Control of Oxides of Nitrogen (NO_x))

The flare is exempt from this standard by Section I(B)(6) as it functions solely as a combustion control device.

Not Applicable - Standard No. 7 (Prevention of Significant Deterioration)

The facility is not part of the 28 major source categories with reduced emissions limitation for PSD applicability. The facility has the uncontrolled potential to emit in a manner that is subject to PSD but has elected to adopt federally enforceable limits to avoid PSD.

Applicable - 61-62.6 (Control of Fugitive Particulate Matter)

The facility is subject to the statewide standards of section III.

40 CFR 60 and 61-62.60 (New Source Performance Standards (NSPS))

Applicable - 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)

The facility modified in the landfill in 1993 by increasing the maximum design capacity. The total waste in place is less than one million tons, which is below the exemption value of 2.5 million Megagrams. § 60.752(a)(2) states that landfills below 2.5 million Megagrams are exempt from the provisions of §§ 60.752(b) through 60.759 of this subpart.

Not Applicable - Subpart XXX (Standards of Performance for Municipal Solid Waste Landfills That Commenced Construction, Reconstruction, or Modification After July 17, 2014)

The facility was operating before the applicability date for this subpart. A modification as defined by this subpart is when the landfill has an increase in permitted volume design capacity by horizontal or vertical expansion as of July 17, 2014. The facility stopped accepting waste in 1998 before being closed in 2003. The permitted design capacity did not increase in this timeframe.

Not Applicable - 40 CFR 61 and 61-62.61 (National Emission Standards for Hazardous Air Pollutants (NESHAP))

This facility does not emit the pollutants in a way that is subject to this standard (asbestos, benzene, beryllium, coke oven emissions, arsenic, mercury, radio nuclide, radon, or vinyl chloride).

40 CFR 63 and 61-62.63 (National Emission Standards for Hazardous Air Pollutants (NESHAP) for Source Categories)

Not Applicable - Subpart AAAA (National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills)

The facility does not meet the area source requirements as the waste in place is less than one million tons. The facility has synthetic minor limits for individual and combined HAP for the purpose of avoiding major source status and becoming subject to the major source requirements of this subpart.



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Not Applicable - 61-62.68 (Chemical Accident Prevention Provisions)

The facility does not store any chemicals subject to 112(r) above threshold quantities.

Not Applicable - 40 CFR 64 (Compliance Assurance Monitoring)

This facility has been previously subject to CAM because they operate an emission source that has the pre-control potential to emit above the major source threshold and uses an add-on control device for complying with federally enforceable limits. Guidance from EPA states that CAM was not intended to be used for annual emission limitations and is meant for short term limits where corrective actions can fix an excursion as defined by the subpart. To correct this, the facility will no longer be applicable to CAM and will not have to maintain a CAM plan and all associated reporting requirements.

AMBIENT AIR STANDARDS REVIEW

Applicable - Standard No. 2 (Ambient Air Quality Standards)

The facility has demonstrated compliance through modeling. For additional information, see the modeling summary dated December 23, 2019.

Not Applicable - Standard No. 8 (state only) (Toxic Air Pollutants)

All TAPs are below de minimis

PERIODIC MONITORING					
ID	Regulatory Requirement	Measured Parameter	Required Monitoring Frequency	Reporting Frequency	Monitoring Basis/ Justification
MGF01	S.C. Regulation 61-62.1, Section II(E)	Flare Operation	Daily	Semiannual	Daily records of control device operation are used to demonstrate compliance with requirement to operate control device
MGF01	S.C. Regulation 61-62.5, Standard 3, Section III(I)	Visual Inspection	Semiannual	Semiannual	No opacity is expected, therefore semiannual qualitative observation of visual emissions is sufficient
Facility Wide	S.C. Regulation 61-62.70.6 (a)(3)(i)(B)	Gas Routing	Daily	Semiannual	Daily recordkeeping of gas routing and flare operation demonstrates compliance with the permit condition requiring the equipment to be operational at all times when the gas collection system is being operated



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ID	Regulatory Requirement	Measured Parameter	Required Monitoring Frequency	Reporting Frequency	Monitoring Basis/ Justification
Facility Wide	S.C. Regulation 61-62.1, Section II(E)	VOC Emissions	Monthly	Semiannual	12 month rolling sum of VOC emissions is used to verify compliance with federally enforceable limits on annual VOC emissions
Facility Wide	S.C. Regulation 61-62.1, Section II(E)	Single and Total HAP Emissions	Monthly	Semiannual	12 month rolling sum of single and total HAP emissions is used to verify compliance with federally enforceable limits on annual HAP emissions

PUBLIC NOTICE

This Title V Permit will undergo a 30-day public notice period and a 45-day EPA comment period in accordance with SC Regulation 61-62.1, Section II(N) and SC Regulation 61-62.70.7(h).

SUMMARY AND CONCLUSIONS

It has been determined that this source, if operated in accordance with the submitted application, will meet all applicable requirements and emission standards.