DEPARTMENT OF NATURAL AND ENVIRONMENTAL RESOURCES

DNER

GOVERNMENT OF PUERTO RICO

STATEMENT OF BASIS
PROPOSED TITLE V OPERATING PERMIT
EL COQUÍ LANDFILL COMPANY, LLC.
PFE-TV-4953-36-0620-0174

The Department of Natural and Environmental Resources (DNER) is issuing a proposed Title V permit in accordance with Title 40 of the Code of Federal Regulations (CFR), Part 70, and Part VI of the Regulations and Control Air Pollution (RCAP) for the El Coquí Landfill Company, LLC (ECL, or the permittee). The facility is located on Highway PR-3, Intersection 923, Barrio Buena Vista, in Humacao, Puerto Rico. The DNER received a Title V permit application on June 16, 2020.

El Coquí Landfill is an active municipal solid waste landfill that receives only non-hazardous solid waste, including municipal waste, commercial solid waste, non-hazardous silt, conditionally exempt waste from small quantity generators, and industrial solid waste. ECL has been operating since 1972 and is estimated to reach full capacity in 2052. El Coquí Landfill Company LLC., owns and manages the Humacao Landfill System.

The solid waste received is weighed and directed to an active cell for disposal. The waste is unloaded from the transport vehicles, scattered over the work area and compacted. All waste is covered at the end of the working day with both alternate cover material and soil. When the disposal areas have reached their maximum capacity, the landfill will close permanently using a system of synthetic cover, soil and vegetation.

The Coquí Landfill is subject to Title V permit requirements for having a design capacity greater than 2.5 million megagrams and 2.5 million cubic meters, and for being a major source of carbon monoxide (CO) exceeding 100 tons per year and greenhouse gases (GHG, expressed as CO_2e, exceeding 100,000 tons per year). The landfill is subject to the applicable requirements of Title 40 of the Code of Federal Regulations, Part 60, Subpart WWW, New Source Performance Standards (NSPS) for Municipal Solid Waste Landfills; and Part 63, Subpart AAAA, National Emission Standards for Municipal Solid Waste Landfills.

Emission Units

The Emission Units section lists the emission units, the associated control equipment, if any, and the type of fuel. This section is an overview of the installation. The emission units are as follows:

EU-1: Municipal Solid Waste Landfill. The landfill has accepted only non-hazardous municipal solid waste since 1972. The average annual waste acceptance rate is 600,000 tons per year, with a maximum landfill gas generation of 6,443 scfm. It has a maximum design capacity of 44,037,069 megagrams (Mg). Control equipment: Two enclosed flares (CD-1 and CD-2).

EU-1a: Landfill Gas Treatment System. Primary treatment of landfill gas for subsequent use and sale as energy. Landfill gas is processed at a rate of 3,800 scfm.

CD-1 and CD-2: Active Landfill Gas Collection System. The collected landfill gas will be directed to two enclosed flares. The CD-1 flare processes a maximum of 2,800 scfm and a heat input of 90 MMBtu/hr. The CD-2 flare processes a maximum of 1,000 scfm and a heat input of 27.4 MMBtu/hr. The auxiliary fuel used in each flare is propane.

F-1: Piles, cover material handling, and hauling of cover material. Fugitive emissions from truck traffic to the storage area, pallet handling and material hauling. About 1,048 tons/day (327,000 tons/year) of material (topsoil/cover daily) is handled and hauled. Water spray or vacuum sweeping, broom sweeping, and flushing with control efficiency of 50% for PM_{10} are used.

F-2: Unpaved roads. Fugitive emissions from truck traffic. Water spray or vacuum sweeping, broom sweeping, and flushing with control efficiency of 50% for PM_{10} are used.

F-3: Paved roads**.** Fugitive emissions from truck traffic. Water spray or vacuum sweeping, broom sweeping, and flushing with control efficiency of 50% for PM_{10} are used.

GEN-1, GEN-2, GEN-3, GEN-4, GEN-5 and GEN-6. Internal combustion engines for electricity generators used in emergencies.

Allowable Emissions

The emissions described in the table below represent the allowable emissions at the time of the permit application and will be used for payment purposes only. In accordance with RCAP Rule 610(a), when ECL requests a modification of the administrative change or minor modification to its Title V permit, the source will only pay those charges related to any increase in emissions (if any) per ton, based on the change and not based on the total charges previously paid in accordance with RCAP Rule 610(a).

Pollutants	Permissible Emissions (tons/year)
PM_{10}	78.60
SO_2	8.08
NOx	32.8
CO	107.91
NMOC	53.05
VOC (combustion)	16.52
HAPs	14.83
HCl	3.97
CO_2e	280,049.96

In accordance with Resolution RI-06-02[1], emissions calculations will be based on actual ECL emissions; however, calculations based on allowable emissions from the facility will be accepted. If ECL chooses to perform the calculations based on allowable emissions, ECL will pay the same charge per ton as the facilities that choose to make the calculations based on current emissions. In addition, in accordance with resolution R-04-04-1[2], in determining modification and renewal charges, ECL shall calculate emissions using the of k, L_0, and C_{NMOC} factors set forth in 40 CFR Section 63.1959(a)(1).

In accordance with Resolution R-12-17-5[3], those sources that have to include or are requested to estimate emissions of the same in accordance with the Tailoring Rule, are exempt from the payment for Greenhouse Gases (expressed as CO_2e) until the DNER issues its final determination with expression of the charges for emissions or some other

[1] Resolution of the EQB - Procedure for Payment of Title V Operating Fees and Title V Permit Renewal Fees issued on March 20, 2006.
[2] Resolution of the EQB - Consultation with the Governing Board on the annual calculation of gas emissions into the atmosphere for Sanitary Landfills issued on February 27, 2004.
[3] EQB Resolution, *PR Tailoring Requirements for Greenhouse Gases (GHGs)* – Payment Waiver issued on September 7, 2012.

charge if necessary or through a revocation of Resolution R-12-17-5, whichever comes first.

Applicable Requirements

Standards of Performance for Municipal Solid Waste Landfills that began construction, reconstruction, or modification on or before May 30, 1991, but before July 13, 2014: 40 CFR Part 60, Subpart WWW.

This emission source is subject to the operating standards of Subpart WWW because it was modified after May 30, 1991. Facilities that are subject to this subpart must install controls if NMOC emissions are greater than or equal to 50 mg per year. In addition, this part requires the effective capture of the generated gas, minimizing the migration of subsurface gas outside the spillway boundaries and directing the collected gas to the enclosed flares (CD-1 and CD-2) that will be operated to reduce the NMOC by 98% by weight.

National Emission Standards for Hazardous Air Pollutants (NESHAP): Municipal Solid Waste Landfills – 40 CFR Part 63, Subpart AAAA.

Prior to September 28, 2021, all landfills were in compliance with this subpart by meeting the requirements of 40 CFR part 60, subpart WWW. Landfills also had to meet the general regulations including startup, shutdown and malfunction (SSM) requirements, as specified in Table 1 of 40 CFR subpart AAAA. From 27 September 2021 at the latest, all landfills shall comply with the requirements of this subpart. The requirements of this subpart apply at all times, including during startup, shutdown and malfunction (SSM) periods, and the SSM requirements of the General Provisions of this part do not apply.

Performance Standards for Stationary Compression-Ignition Internal Combustion Engines – 40 CFR, Part 60, Subpart IIII.

This subpart applies to all owners or operators of stationary compression-ignition internal combustion engines that began construction after July 11, 2005.

National Emission Standards for Hazardous Air Pollutants (NESHAP): for Reciprocating Stationary Internal Combustion Engines – 40 CFR, Part 63, Subpart ZZZZ.

This subpart applies to owners or operators of reciprocating stationary internal combustion engines (RICEs) at a major or area source for emissions of hazardous air pollutants (HAPs).

The following requirements do not apply to the following El Coquí Landfill units:

- The Emission Guidelines and Compliance Itineraries for Municipal Landfill Systems established under Part VII of the RCAP. The provisions of this part apply only to existing municipal landfill systems whose construction, reconstruction, or modification began before May 30, 1991.

- Standards of Performance for Municipal Solid Waste Landfills, Subpart XXX, 40 CFR, Part 60. This subpart affects each municipal solid waste landfill that began construction, reconstruction, or modification after July 17, 2014. This facility began construction before July 17, 2014. The design capacity was modified on August 17, 2016. The increase in design capacity did not lead to an expansion of the landfill. Therefore, this facility is not subject to this subpart. Physical or operational changes made to a landfill, solely to comply with subpart WWW of 40 CFR 60, are not considered construction, reconstruction, or modification for purposes of this section.

- National Asbestos Emission Standard – 40 CFR Part 61, Subpart M. Section 61.154, Standard for Active Waste Disposal Sites, requires that each owner or operator of an active waste disposal site that receives asbestos-containing waste material from a source covered under §61.149, §61.150, or §61.155 comply with the requirements of this section. This facility is not subject to this subpart because it does not receive asbestos-containing materials.

The reporting frequency for compliance certification for this source should be annual. Unless specifically stated, all terms and conditions of the Title V permit, including provisions designated to limit the emissions potential of the federal Clean Air Act. Such terms and conditions that are designated as enforceable only by the state, as indicated by the permit, are enforceable only by the DNER.

The DNER has determined that this Proposed Title V Operating Permit satisfies the requirements under Part VI of the RCAP.

DEPARTMENT OF NATURAL AND ENVIRONMENTAL RESOURCES

DNER

GOVERNMENT OF PUERTO RICO

PROPOSED TITLE V OPERATING PERMIT
AIR QUALITY AREA
DEPARTMENT OF NATURAL AND ENVIRONMENTAL RESOURCES

Permission Number:	PFE-TV-4953-36-0620-0174
Application Receipt Date:	June 16, 2020
Final Issue Date or Effectiveness:	[Date]
Expiration Date:	[Date]

In accordance to the provisions of Part VI of the Regulation for Atmospheric Pollution Control (RCAP) and the provisions of the Code of Federal Regulations (CFR), Volume 40, Part 70:

EL COQUÍ LANDFILL COMPANY, LLC.
HUMACAO, PUERTO RICO

hereinafter **ECL**, or the **permittee,** is authorized to operate a stationary source of air pollutant emissions consisting of the units described in this permit. Until this permit expires, is modified, or revoked, the permittee shalll be able to emit atmospheric pollutants as a result of those processes and activities directly related and associated with the emission sources, in accordance to the requirements, limitations, and conditions of this permit, until its expiration date or until it is modified or revoked.

The conditions of the permit shall be enforceable by the federal and state government. Those requirements that are enforceable only by the state government will be identified as such in the permit. A copy of the permit must be kept at the aforementioned facility at all times.

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Section I – General Information

A. Facility Information

Owner Name	EL COQUI LANDFILL COMPANY, LLC
Postal Address	P.O. BOX 918 PUNTA SANTIAGO HUMACAO, P.R. 00741-0918
Facility Name	EL COQUI LANDFILL COMPANY, LLC.
Facility Location	PR-3 INT. 923, KM. 1.7 BUENA VISTA WARD HUMACAO, PUERTO RICO
Responsible Official	MR. JAIME JAEN VICEPRESIDENT
Phone:	787-391-0074
Fax:	787-850-3435
Primary SIC Code:	4953

B. Process Description

El Coquí Landfill (ECL) is an active municipal solid waste landfill that began disposal operations in 1972 and is projected to continue operating until 2052[1]. Approximately 600,000 tons of non-hazardous solid waste are deposited at **ECL** per year.

ECL is located on Road PR-3, intersection 923, Km. 1.7 in the Buena Vista Ward of Humacao. **El Coquí Landfill Company LLC.** is the owner and administrator of the Humacao Landfill System (SRS).

Only non-hazardous solid waste is received at ECL, including municipal waste, commercial solid waste, non-hazardous silt, conditionally exempt waste from small

[1] Approximate year of closure as authorized in the facility's construction permit, PFE-RH-36-0304-0007-I-II-III-C on August 17, 2022.

quantity generators, and industrial solid waste. The solid wastes received are weighed and directed to an active cell for disposal. The waste is unloaded from the transport vehicles, scattered over the work area and compacted. All waste is covered at the end of the working day with both alternate cover material and soil. When disposal areas have reached their maximum capacity, the landfill will close permanently using a synthetic cover system, soil and vegetation[2].

The decomposition of waste encapsulated in the landfill produces gas (landfill gases) consisting of methane, carbon dioxide (CO_2) and other non-methane organic compounds (NMOCs). The gas generated at **ECL** is collected through an active gas collection system directed at two enclosed flares (CD-1 and CD-2) or may be directed to a duly authorized energy recovery facility[3] once it has been treated through the primary treatment system (EU-1a/CD-03), to be used for energy production, renewable natural gas and others.

El Coquí Landfill Company, LLC, is subject to Title V permit requirements for having a design capacity greater than 2.5 million megagrams and 2.5 million cubic meters, and for being a major source of carbon monoxide (CO) exceeding 100 tons per year and of greenhouse gases (GHG), expressed as CO_2e, exceeding 100,000 tons per year.

Section II – Emission Units Description

The emission units regulated by this permit are the following:

Emission Units	Description	Control Equipment
EU-1	**Municipal Solid Waste Landfill** The landfill accepts municipal solid waste. It has a design capacity of **44,037,069 megagrams**[4]. Acceptance of waste at a rate of 600,000 tons per year. Waste acceptance must be recorded monthly and totaled on an annual basis. The amount of waste accepted of 600,000 tons per year is an estimate that does not limit the maximum amount to be received and may be adjusted to meet the final disposal needs of Puerto Rico and the market as long as the source complies thoroughly with the	CD-1 and CD-2 Active Landfill Gas Collection System directed at two enclosed burners.

[2] Resolution R-16-22 of July 8, 2022. (Resolution of Adjudicative Procedure PFE-TV-4953-36-1001-2294).
[3] Now operated by Biomass Green Fuels, LLC.
[4] The design capability was amended on August 17, 2016 (PFE-RH-36-0304-0007-I-II-III-C).

Emission Units	Description	Control Equipment
EU-1 (cont.)	requirements of condition **13** of Section **V(B) in** the permit. An increase in the amount of waste acceptance will lead to an analysis of the capacity of the collection and control system. The permittee shall not increase the acceptance ratio if the collection and control system does not comply with the requirements **of Section V(B) condition 13 of the permit**. Maximum landfill gas generation: 5,184 scfm. The approximate year of closure will be 2052 [6], however, this may vary according to the actual amounts of solid waste disposed of.	CD-1 and CD-2 Active Landfill Gas Collection System directed at two enclosed burners (cont.)
EU-1a	**Landfill Gas Treatment System[7]** Treatment system to dehumidify (dewatering) the landfill gas by means of the collection pipes with a 5% inclination to condense, drain and collect the moisture that comes with landfill gas. After being drained, the condensate is collected by gravity at the low points of the landfill system to be transferred by pumps to the leachate collection system. The landfill gas after passing through the pipelines is treated in a *knockout pot* to dehumidify the remaining moisture before being destroyed in the flare system or used for the production of energy, renewable natural gas and others. Landfill gas is processed at a rate of 3,800 cubic feet per minute. • Gas filtering – through a 10-micron filter. • Gas dehydration – the system works by gravity. The gas from the landfill well has an average temperature of 98-104ºF and a saturation of 100% water. Because	CD-3 Primary treatment of landfill gas.

[6] Approximate year of closure as authorized in the facility's construction permit, PFE-RH-36-0304-0007-I-II-III-C on August 17, 2022.
[7] PFE-RH-36-0304-0007-I-II-III-C, 30 JUN 2021.

Emission Units	Description	Control Equipment
EU-1a (cont.)	the blower creates a vacuum of 50-60 inches of water in the collection system, the gas cools when it reaches the blower's demister, with a reduction of 10-15º F, which produces a condensation of water due to the effect of the difference in partial pressure of water in the gas. Dehydration occurs due to physical effect. • Gas compression – gas is compressed between 3-5 psig by a centrifugal blower (compressor).	CD-3 Primary treatment of landfill gas. (cont.)
CD-1	**Active Landfill Gas Collection System directed to Two Enclosed Burners** Enclosed Flare 1. Manufacturer: *LFG Specialties, LLC.* Model: EF1045I12 • Processes a maximum of 2,800 scfm. • Heat input rate: 90 MMBtu/hr • Outlet Temperature: 1,500ºF • Startup fuel use: Propane at a rate of 1,000 gal/year. • Velocity: 8.48 ft3/sec. • Stack: o Height = 45 feet o Diameter = 10 feet • Operation hours: 8,760 hr/year • Minimum destruction efficiency for NMOC: 98%. • Minimum temperature.[8]	None
CD-2	**Active Landfill Gas Collection System directed to Two Enclosed Flares**	None

[8] The minimum temperature that will prevail is the temperature established in the initial operation test for the flare or that established in the most recent test approved by the DNER, as established by the applicable regulations.

Emission Units	Description	Control Equipment
	Enclosed Flare 2. Manufacturer: *LFG Specialties* Model: EF73516. • Processes a maximum of 1,000 scfm • *Heat input rate: 27.4 MMBtu/hr* • Outlet Temperature: 1,650ºF • Startup fuel usage: Propane at a rate of 100 gal/yr • Velocity: 5 ft/sec. • Stack: o Height: 35 feet o Diameter: 84 inches Operation Hours: 8,760 hr/year • Minimum destruction efficiency for NMOC: 98% • Minimum temperature.	
F-1	**Piles, cover material handling, and hauling of cover material** Truck transit to the storage area, pallet handling and material hauling. About 1,048 tons/day (327,000 tons/year) of material (topsoil/daily cover) is handled and hauled. Estimated fugitive emissions of 0.04 tons/year for PM_{10}.	Water flushing or vacuum sweeping, and broom sweeping and flushing with control efficiency 50% for PM_{10}.
F-2	**Unpaved Roads** Truck traffic. Estimated fugitive emissions of 56.64 tons/year for PM_{10}.	Water flushing or vacuum sweeping, and broom sweeping and flushing with control efficiency 50% for PM_{10}.
F-3	**Paved Roads** Truck traffic. Estimated fugitive emissions of 4.84 tons/year for PM_{10}.	Water flushing or vacuum sweeping and broom

Emission Units	Description	Control Equipment
		sweeping and flushing with control efficiency 50% for PM_{10}.
GEN-1	**Internal Combustion Engine for an Electricity Generator** Engine power: 480 hp (358 kW) Manufactured Engine: Caterpillar Model No.: C9 Fuel: Diesel Maximum Fuel Consumption Ratio: 19.40 gal/hr Model Year: 2018 EPA Certificate Number: JCPXL08.8NZS-004 Category: Emergency	None
GEN-2	**Internal Combustion Engine for an electricity generator.** Engine power: 95 hp Manufactured Engine: Perkins Model No.: C4.4 Fuel: Diesel Maximum Fuel Consumption Ratio: 5.10 gal/hr Model Year: 2018 EPA Certificate Number: JPKXL04.4NP1-011 Category: Emergency	None
GEN-3	**Internal Combustion Engine for an electricity generator.** Engine power: 95 hp Manufactured Engine: Perkins Model No.: C4.4 Fuel: Diesel Maximum Fuel Consumption Ratio: 5.10 gal/hr Model Year: 2018 EPA Certificate Number: JPKXL04.4NP1-011 Category: Emergency	None
GEN-4	**Internal Combustion Engine for an Electricity Generator.** Engine power: 95 hp Manufactured Engine: Perkins	None

Emission Units	Description	Control Equipment
	Model No.: C4.4 Fuel: Diesel Maximum Fuel Consumption Ratio: 5.10 gal/hr Model Year: 2018 EPA Certificate Number: HPKXL04.4NP1-008 Category: Emergency	
GEN-5	**Internal Combustion Engine for an Electricity Generator** Brand Generator: Kubota Manufactured Engine: Kubota Model: Z482-D2-ET06 Engine power: 13 hp Fuel: Diesel Maximum Fuel Consumption Ratio: 0.80 gal/hr Model Year: 2012 Engine Family: CKBXL.719KCC Category: Emergency	None
GEN-6	**Internal Combustion Engine for an Electricity Generator** Generator Brand: Cummins Manufactured Engine: Cummins Inc. Model: QSL9-G7 Engine power: 464 hp Fuel: Diesel Maximum Fuel Consumption Ratio: 19.6 gal/hr Model Year: 2014 Engine Family: ECEXL0540AAB Category: Emergency	None

Section III – General Permit Conditions

1. **Sanctions and Penalties:** The permittee must comply with all terms, conditions, requirements, limitations, and restrictions established in this permit. Any violation of the terms of this permit is subject to administrative, civil or criminal

measures, as established in Section 16 of the Environmental Public Policy Act (Law No. 416 of September 22, 2004, as amended).[9]

2. **Right of Entry:** As specified under Rules 103 and 603(c)(2) of the RCAP, the permittee shall allow the DNER or an authorized representative, upon presentation of credentials and other documents as may be required by law, to perform the following activities:

   a. Enter upon the permittee's premises where an emission source is located or where emission related activities are conducted, or where records must be kept under the conditions of the permit, under the RCAP, or under the Clean Air Act.

   b. Have access to and copy, at reasonable times, any records that must be kept under the conditions of the permit, under the RCAP, or under the Clean Air Act.

   c. Inspect and examine any facilities, equipment (including monitoring and air pollution control equipment), practices, or operations (including QA/QC methods) regulated or required under the permit, as well as sampling emissions of air quality and fuel; and

   d. As authorized by the Clean Air Act and the RCAP, to sample or monitor at reasonable times substances or parameters for the purpose of assuring compliance with the permit or other applicable requirements.

3. **Sworn Statement or Affidavit:** All reports required pursuant Rule 103(D) of the RCAP (i.e., semi-annual monitoring reports and annual compliance certification) should be submitted together with a sworn statement or affidavit by the Responsible Officer or a duly authorized representative. Such sworn statement or affidavit shall attest to the truth, correctness, and completeness of such records and reports.

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[9] Pursuant to the Department of Natural and Environmental Resources Reorganization Plan of 2018, Act 171 of August 2, 2018, Section 28, the powers and functions previously delegated to the Environmental Quality Board, its President and/or its Governing Board, are transferred to the Department of Natural and Environmental Resources, to be executed by the Secretary, through Law 416-2004 as amended, known as the "Law on Environmental Public Policy". In addition, pursuant to Section 92 – Substitution Clause, any reference to the Environmental Quality Board, contained in any Law, regulation or official document of the Government of Puerto Rico shall be deemed amended to refer to the Department of Natural and Environmental Resources which shall be deemed to be its successor for all corresponding legal purposes.

4. **Data Availability:** As specified under Rule 104 of the RCAP, all emission data obtained by or submitted to the DNER, including data reported pursuant to Rule 103 of the RCAP, as well as that obtained in any other way, shall be available for public inspection and also be made accessible to the public in any other manner that the DNER may deem appropriate.

5. **Emergency Response Plan:** As specified in Rule 107(C) of the RCAP, every source that may release, emit or vent toxic or deleterious substance into the atmosphere shall prepare and submit to the DNER an Emergency Response Plan, according to the provisions of Section 2 of Rule 107(C) of the RCAP. As required by RCAP Rule 107(C)(3), the owner or operator must keep the Emergency Response Plan updated and all personnel involved must be trained and knowledgeable in the tasks and functions related to the Plan. The owner or operator must keep the Emergency Response Plan accessible to all involved and must present it to DNER representatives when required, as established in Rule 107(C)(4) of the RCAP**.**

6. **Air Pollution Control Equipment or Measures:** The permittee shall comply with Rule 108 of the RCAP as follows:

   a. All air pollution control equipment or control measures shall provide for continuous compliance with applicable rules and regulations. Such equipment or measures shall be installed, maintained, and operated in accordance with the conditions imposed by this Title V permit within the operational limits specified by the manufacturer.

   b. The collected material from the air pollution control equipment shall be disposed of in accordance with applicable rules and regulations. Removal, manipulation, transportation, storage, treatment, or disposal will be done in such manner that shall not produce environmental degradation and in accordance with applicable rules and regulations.

   c. The Board may require, when deemed appropriate, to safeguard the health and welfare of human beings, the installation and maintenance of additional complete and separate air pollution control equipment, of a capacity equal to the capacity of the primary control equipment. Furthermore, the Board may require that such additional air pollution control equipment be operated continuously and conjunctionally with the primary air pollution control equipment.

   d. All air pollution control equipment shall be operated at all times while the source being controlled is in operation.

e. In the case of a shutdown of air pollution control equipment for the necessary scheduled maintenance, the intent to shutdown such equipment shall be reported to the Board at least three days prior to planned shutdown. Such prior notification shall include, but shall not be limited to the following:

   i. Identification of the specific source to be taken out of service, with its location and permit number.

   ii. The expected length of time that the air pollution control equipment will be out of service.

   iii. The nature and quantity of emissions of air pollutants likely to be emitted during the shutdown period.

   iv. Measures such as the use of off-shift labor and equipment that will be taken to minimize the length of the shutdown period.

   v. The reasons why it would be impossible or impractical to shutdown the operating source during the maintenance period.

7. **Compliance Certification:** According to Rule 602(c)(2)(ix)(C) of the RCAP, the permittee shall submit each year a compliance certification. This certification must be submitted to both the DNER and the Environmental Protection Agency (EPA)[10] no later than **April 1st,** covering the preceding calendar year. The compliance certification shall include, but is not limited to, the information required by Rule 603(c) of the RCAP as follows:

   a. The identification of each term or condition of the permit that is the basis for certification; and

   b. The compliance status. Each deviation must be identified and taken into consideration in the compliance certification; and

   c. A statement indicating whether the compliance was continuous or intermittent; and

[10] The certification to the DNER must be sent by mail to: Manager, Air Quality Area, San José Industrial Park 1375, Ave. Ponce de León, San Juan, P.R. 00926. The EPA certification should be mailed to: *Chief, Enforcement and Superfund Branch, CEPD, US EPA-Region II, City View Plaza – Suite 7000, #48 Rd. 165 km 1.2 Guaynabo P.R. 00968-8069.*

d. The methods or other means used to determine the source's compliance status with each term and condition, current and throughout the reporting period, consistent with sections (a)(3-5) of Rule 603 of the RCAP; and

e. Identification of possible exceptions to compliance, any period which compliance is required and in which an exclusion or exceedance as defined in 40 CFR Part 64 (CAM) occurred; and

f. Such other facts as may be required by the Board to determine the compliance status of the source.

8. **Regulatory Compliance:** As specified under Rule 115 of the RCAP, any violations to RCAP or to any other applicable rule or regulation, shall be grounds for the Board to suspend, modify, or revoke any relevant permit, approval, variance or other authorization issued by the DNER according to the Law of Uniform Administrative Procedures.

9. **Location Approval:** As specified under Rule 201 of the RCAP, nothing in this permit shall be interpreted as authorizing the location or construction of a major stationary source, or the modification of a major stationary source, or a major modification of a significant source, without obtaining first a location approval from the Board and without first demonstrating compliance with the National Ambient Air Quality Standards (NAAQS). This permit does not allow the construction of new minor sources without the required permit under Rule 203 of the RCAP.

10. **Objectionable Odors:** As specified in Rule 420 of the RCAP, the permittee shall not cause or permit the emissions into the atmosphere of any matter which produces an objectionable odor that can be perceived in an area other than that designated for industrial purposes. If objectionable odors are detected beyond the property perimeter, and complaints are received, the permittee shall investigate and take measures to minimize and/or eliminate objectionable odors, if necessary. [This condition is only enforceable by the State.]

11. **Permit Renewal Applications:** As established under Rule 602(a)(1)(iv) of the RCAP, the permittee shall submit a permit renewal application at least 12 months prior to the date of the permit expiration. A responsible officer must certify all required applications consistent with paragraph (c)(3) Rule 602 of the RCAP.

12. **Permit Duration:** As specified in Rule 603 of the RCAP, the following terms will apply during the duration of this permit:

a. Expiration: This authorization shall have a fixed term of five (5) years after the effective date. The expiration date will be automatically extended until the DNER approves or denies a renewal application [Rule 605(c)(4)(ii) of the RCAP] but only in those cases where the permittee submits a complete renewal application at least twelve (12) months before the expiration date. [Rules 603(a)(2), 605(c)(2), and 605(c)(4) of the RCAP)]

b. Permit Shield: As specified in Rule 605(c)(4)(i) of the RCAP, permit shield may be extended until the time the permit is renewed if a timely and complete renewal application is submitted.

c. In case that this permit is subject to any challenge by third parties, the permit shall remain in effect until such time it is revoked by a court of law with jurisdiction in the matter.

13. **Recordkeeping Requirement:** As established under Rule 603(a)(4)(ii) of the RCAP, the permittee shall retain records of all required monitoring data and support information for a period of five (5) years from the date of the monitoring sample, measurement, report, or application.

14. **Semi-Annual Monitoring Reports/Sampling:** As established under Rule 603(a)(5)(i) of the RCAP, the permittee shall submit reports to the Board of all required monitoring every six (6) months, or more frequently if required by the Board or any other underlying applicable requirement. These reports cover two major elements. The first element is the summary of all periodic monitoring / sampling required in this permit. The second element requires that all deviations from permit conditions are clearly identified, summarized and reported to the Board. All instances of deviations from permit requirements must be clearly identified in such reports. All required reports must be certified by a responsible official as established under Rule 602(c)(3) of the RCAP. The report covering the period from January through June shall be submitted no later than October 1st of the same year and the report covering the period from July through December shall be submitted no later than **April 1st** of the following year. Once the guidelines are developed by Board, the permittee must use them to complete these reports.

15. **Reporting Deviations Due to Emergencies:** According to Rule 603(a)(5)(ii)(a) of the RCAP, any deviation resulting from an upset (such as sudden malfunction or break-down) or emergency conditions, as defined in Rule 603(e) of the RCAP, must be reported within the next 2 working days from the time the emission limits

are exceeded due to the emergency. [11] If such emergency deviation extends for more than 24 hours, the affected units may be operated until the end of the cycle or in 48 hours, whichever occurs first. The Board may only extend the operation of an emission source in excess of 48 hours if the source demonstrates the Board's satisfaction that the National Air Quality Standards have not been exceeded and there is no risk to public health.

16. **Deviation Report (Hazardous Air Pollutants):** The source shall act as specified in its Emergency Response Plan (established in Rule 107(C) of the RCAP), when such plan has shown no significant impact on an area other than those that have been designated for industrial purposes or will cease operations immediately if there is a significant impact on an area other than those that have been designated for industrial purposes (condition is state enforceable only). In accordance with Rule 603(a)(5)(ii)(b) of the RCAP, the Board shall be notified within the next 24 hours if a deviation that results in the release of emissions of hazardous air pollutants for more than an hour in excess of the applicable limit occurs. For the discharge of any regulated air pollutant that continues for more than 2 hours in excess of the applicable limit, the permittee shall notify the Board within 24 hours of the deviation. The permittee shall submit to the Board, within 7 days of the deviation, a detailed written report which includes probable causes, time and duration of the deviation, remedial action taken and the steps you are following to prevent recurrence.

17. **Severability Clause:** As specified under Rule 603(a)(6) of the RCAP, the clauses in this permit are severable. In the event of a successful challenge to any portion of the permit in an administrative or judicial forum, or in the event any of its clauses is held to be invalid, all other portions of the permit shall remain valid and effective, including those related to emission limits, terms and conditions, be they specific or general, as well as monitoring, record-keeping, and reporting requirements.

18. **Permit Noncompliance:** According to Rule 603(a)(7)(i) of the RCAP, the permittee must comply with all conditions of the permit. Permit noncompliance constitutes a violation of the RCAP and will be grounds for taking the appropriate

[11] On July 21, 2023, EPA removed the emergency affirmative defense provisions from the Title V operating permit program regulations. These provisions were determined to be inconsistent with EPA's interpretation of the Clean Air Act's compliance structure. The final rule, which was published in the *Federal Register* on August 21, 2023, amended the provisions of 40 CFR §70.6. On August 21, 2024, the DNER asked EPA for an extension of time to remove affirmative provisions from its Title V program, which requires amendments to RCAP Rule 603.

enforcement action, imposing sanctions, revoke, terminate, modify, and/or reissue the permit, or to deny a permit renewal application.

19. **Defense not Allowed:** As specified in Rule 603(a)(7)(ii) of the RCAP, the permittee shall not allege as a defense, 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 the permit.

20. **Permit Modification and Revocation:** As specified under Rule 603(a)(7)(iii) of the RCAP, the permit may be modified, revoked, reopened, reissued, or terminated for cause according to the Law of Uniform Administrative Procedures. The filing of a request by the permittee for permit modification, revocation, and reissuance or termination or of a notification of planned changes or anticipated non-compliance, does not stay any permit conditions.

21. **Property Right:** As specified under Rule 603(a)(7)(iv) of the RCAP, this permit does not convey any property right of any sort, or does it grant any exclusive privilege.

22. **Obligation to Furnish Information:** As specified under Rule 603(a)(7)(v) of the RCAP, the permittee shall furnish to the Board, within a reasonable time, any information that the Board may request in writing to determine whether cause exists for modifying, revoking, and reissuing, or terminating the permit or determining compliance with the permit. Upon request, the permittee shall also furnish with the Board copies of documents related to the permit.

23. **Change in Operating Scenario:** As specified in Rule 603(a)(10) of the RCAP, the permittee shall, contemporaneously with making a change from one operating scenario to another, record in a log the scenario under which it is operating. This record shall be kept onsite at all times.

24. **Prohibition on Default Issuance:** As specified under Rule 605(d) of the RCAP, it shall never be considered that a permit has been issued by default because of the Board's failure to take final action on a permit application within 18 months. The Board's failure to issue a final permit within 18 months should be treated as a final action solely for the purpose of obtaining judicial review in a state court.

25. **Administrative Permit Amendments and Permit Modifications:** As specified under Rule 606 of RCAP, the permit shall not be amended nor modified unless the permittee complies with the requirements for administrative permit amendments and permit modifications as described in the RCAP.

26. **Permit Reopening:** As specified under Rule 608(a)(1), this permit shall be reopened and revised under the following circumstances:

    a. Whenever additional applicable requirements under any law or regulation become applicable to the permittee, when the remaining permit term is 3 or more years. Such reopening shall be completed 18 months after promulgation of said applicable requirement. 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 have been extended pursuant to Rule 605(c)(4)(i) or Rule 605(c)(4)(ii) of the RCAP.

    b. Whenever the Board or the EPA determines whether the permit contains a material mistake or that inaccurate statements were made in establishing emission standards or other terms or conditions of the permit.

    c. Whenever the Board or EPA determines that the permit must be revised or revoked to ensure compliance with applicable requirements.

27. **Change in Name or Responsible Official:** This permit is issued in the name of **El Coquí Landfill Company, LLC.** In the event that the company and/or facility changes its name, the responsible official must submit an administrative amendment to this permit to reflect the change in name. If the event that the responsible official changes, the new responsible official must submit no later than 30 days after the change, an administrative amendment including an affidavit in which he/she accepts and promises to comply with all the conditions of this permit.

28. **Change of Ownership:** This permit is issued in the name of **El Coquí Landfill Company, LLC.** In the event that the company and/or facility is transferred to another owner or changes its operational control and the DNER determines that no other change in the permit is necessary, the new responsible official must submit an administrative amendment. The administrative amendment shall include a sworn statement in which the new responsible official accepts and agrees to comply with all the conditions of this permit, and a written agreement containing a specific date for transfer of permit responsibility, coverage, and liability between the current and new permittee. This is not applicable if the DNER determines that changes to the permit are necessary.

29. **Renovation Work /Demolition:** The permittee shall comply with the provisions of 40 CFR §61.145 and §61.150 and Rule 422 of the RCAP and Regulations for the Processing of General Permit (General Permit for the Handling of Asbestos-

Containing Materials) when doing renovation or demolition activities of asbestos-containing materials at the facility. The permittee is not authorized to receive asbestos-containing material in the sanitary landfill system.

30. **Risk Management Plan** (RMP): If during the effectiveness of this permit, the permittee is subject to the 40 CFR part 68, the permittee shall submit a Risk Management Plan according to the compliance schedule in the 40 CFR part 68.10. If during the effectiveness of this permit, the permittee is subject to the 40 CFR part 68, the permittee shall submit a compliance certification with the requirements of part 68 as part of the annual compliance certification required under 40 CFR part 70, including the recordkeeping and the Risk Management Plan.

31. **General Duty:** The permittee has the general obligation of identifying hazards which may result from accidental releases of any controlled substance under section 112(r) of the Clean Air Act or any other extremely hazardous substance in a process, using appropriate hazard assessment techniques, designing, maintaining, and operating a safe facility and minimizing the consequences of accidental releases if they occur as required in section 112(r)(1) of the Act and Rule 107(D) of the RCAP

32. **Requirements for Refrigerants (Climatologic and Stratospheric Ozone Protection):**

    a. In the event that the permittee has equipment or appliances, including air conditioning units, which use Class I or II refrigerants as defined in 40 CFR part 82, subpart A, Appendices A and B, the permittee shall take the necessary measures to ensure that all maintenance, service or repair services performed are done so according to the practices, certification and personnel requirements, disposition requirements, and recycling and/or recovery equipment certification requirements specified under 40 CFR part 82, subpart F.

    b. Owners/ operators of appliances normally containing 50 or more pounds of refrigerant must keep records of refrigerant purchased and added to such appliances pursuant to 40 CFR §82.166.

    c. Service on Motor Vehicles: If the permittee performs a service on motor (fleet) vehicles when this service involves ozone-depleting substance refrigerant (or regulated substitute substance) in the motor vehicle air conditioner (MVAC), the permittee is subject to all the applicable

requirements as specified in 40 CFR part 82, subpart B, Servicing of Motor Vehicle Air Conditioners. The term motor vehicle used in subpart B does not include a vehicle in which the final assembly of the vehicle has not been completed. The term MVAC as used in subpart B does not include the air-tight sealed refrigeration system used as refrigerated cargo or system used on passenger buses using HCFC-22 refrigerant.

33. **Labeling of Products Using Ozone-Depleting Substances:** The permittee shall comply with the labeling standards for products that use ozone-depleting substances in accordance with 40 CFR Part 82, Subpart E.

    a. All containers in which a Class I or Class II substance is stored or transported, all products containing a Class I substance, and all products manufactured directly from a Class I substance shall bear the required warning statement if introduced into interstate commerce in accordance with 40 CFR §82.106.

    b. The placement of the required warning statement shall comply with the requirements in accordance with 40 CFR §82.108.

    c. The form of the label bearing the warning statement must meet the requirements of 40 CFR §82.110.

    d. No person shall modify, remove, or interfere with the required warning statement except as described in 40 CFR §82.112.

34. **Roof Surfaces Coating:** Pursuant to Rule 424 of the RCAP, the permittee shall not cause or permit the roof surface coating by applying hot tar or any other coating material containing organic compounds without previous notification to the Board. The use of **used** oil or hazardous waste for roof surface coating is prohibited. This rule will not apply to activities where tar or sealing material is applied without heat and such material is asbestos-free. [This is a state-only enforceable requirement.]

35. **Storage Tanks:** The permittee shall keep records of all fuel oil storage tanks showing the dimensions of each tank and an analysis showing the capacity of each tank. This documentation shall be readily available at any time for inspection of the DNER personnel and shall be kept onsite for the life of the tank.

36. **Compliance Clause:** Under no circumstances does compliance with this permit exempt the permittee from complying with all other applicable state or federal laws, regulations, permits, administrative orders or applicable court orders.

37. **Emissions Calculations:** The permittee shall submit, on or before **April 1st** of each year, the actual or permissible emissions calculations for the previous natural year. The emissions calculations shall be submitted on the forms prepared by the DNER for this purpose and the responsible official must certify all the information submitted as true, correct and representative of the permitted activity included in the permit.

38. **Annual Fee:** As specified under Rule 610 of the RCAP, the permittee must submit an annual payment based on the emissions calculations for each regulated pollutant. The payment will be based on their actual emissions at a rate of $37.00 per ton, unless the Board decides otherwise as permitted under Rule 610(b)(2)(iv) of the RCAP. This payment for the previous year must be made on or before **June 30** of each year.

39. **New Amendments or Regulations:** Whether a federal or state regulation is promulgated or amended, and the facility is affected by it, the owner or operator shall comply with the requirements of the new or amended regulation. The DNER will provide a specified and reasonable period of time, so the permittee reach compliance with the amendments or new regulations.

40. **Reports:** Unless a permit condition establishes otherwise, any requirement of information submittal to the DNER shall be addressed to: Manager, Air Quality Area, San José Industrial Park 1375, Ave. Ponce de Leon, San Juan, Puerto Rico 00926.

41. **Reservation of Rights:** Except as expressly provided in this Title V permit:

    a. Nothing contained herein shall preclude the DNER or EPA from taking administrative action or legal action to enforce the terms of the Title V permit, including, but not limited to, the right to seek an injunction and impose statutory penalties and/or fines.

    b. Nothing contained herein shall be construed to limit the rights of the DNER or EPA to engage in any criminal action activity against the permittee or any person.

c. Nothing contained herein shall be construed to limit the authority of the DNER or EPA to take any action in response to conditions that present a substantial and imminent danger to public health or welfare, or the environment.

d. Nothing contained herein shall be construed to limit the rights of the permittee to an administrative hearing and judicial review of a termination/revocation/denial action in accordance with the Regulations and the Environmental Public Policy Act.

42. **Source Modifications without a Permit Review**: The permittee may make changes to the source in accordance with paragraphs (a), (b), and (c), of Rule 607 as follows:

a. Source changes –

1. Permitting sources may make changes under Section 502(b)(10) of the Act without requiring a permit review, if the changes are not modifications under any of the provisions of Title I of the Act. The law and the changes do not exceed the allowable emissions under the permit (whether expressed in the permit as an emissions rate or in terms of total emissions).

i. For each such change, the facility must provide the Administrator and the DNER with written notification in advance of the proposed changes, which shall be seven (7) days. The written notification shall include a brief description of the change within the permitted facility, the date on which the change will occur, any change in emissions, and any permit term or condition that is no longer applicable as a result of the change. The source, the Board, and EPA shall attach each such notice to their copy of the relevant permit.

ii. The permit shield described in paragraph (d) of Rule 603 shall not apply to any change made pursuant to section (a)(1) of Rule 607.

2. Permitted sources may trade increases and decreases in emissions in the permitted facility for the same pollutant, where the permit provides for such emissions trades without requiring a permit revision and based on the 7-day notice prescribed in section (a)(2) of Rule 607. This provision

is available in those cases where the permit does not already provide for such emissions trading.

i. Under paragraph (a)(2) of Rule 607, the written notification required shall include such information as may be required by the provision in the Puerto Rico State Implementation Plan (PR-SIP) authorizing the emissions trade, including when the proposed change will occur, a description of each such change, any change in emissions, the permit requirements with which the source will comply using the emissions trading provisions of the PR-SIP, and the pollutants emitted subject to the emissions trade. The notice shall also refer to the provisions with which the source will comply with the PR-SIP and that they provide for the emissions trade.

ii. The permit shield described in paragraph (d) of Rule 603 shall not extend to any change made under section (a)(2) of Rule 607. Compliance with the permit requirements that the source will meet using the emissions trade shall be determined according to the requirements of the applicable implementation plan authorizing the emissions trade.

3. If a permit applicant requests it, the Board shall issue permits that contain terms and conditions (including all terms required under sections (a) and (c) of Rule 603 to determine compliance) allowing for the trading of emissions increases and decreases in the permitted facility solely for the purpose of complying with a federally enforceable emissions cap. Such a cap must be established in the permit, independent of otherwise applicable requirements. The permit applicant shall include in its application proposed replicable procedures and permit terms that ensure the emissions trades are quantifiable and enforceable. The Board shall not be required to include in the emissions trading provisions any emissions units for which emissions are not quantifiable or for which there are no replicable procedures to enforce the emissions trades. The permit shall also require compliance with all applicable requirements.

i. Under section (a)(3) of Rule 607, the written notification required shall state when the change will occur and shall describe the changes in emissions that will result in and how these increases and decreases in emissions will comply with the terms and conditions of the permit.

ii. The permit shield described in paragraph (d) of Rule 603 may extend to terms and conditions that allow such increases and decreases in emissions.

b. Off-Permit Changes. The DNER may allow changes that are not addressed or prohibited by the permit and/or State Law.

1. A permitted facility may make changes without obtaining a permit revision if such changes are not addressed or prohibited by the permit, other than those described in paragraph (c) of Rule 607.

i. Each such change shall meet all applicable requirements and shall not violate any existing permit term or condition.

ii. Sources must provide contemporaneous written notice to the Board and EPA of each such change, except for changes that qualify as insignificant under paragraph (c)(1) of Rule 602. Such written notice shall describe each such change, including the date, any change in emissions, pollutants emitted and any applicable requirement that would apply because of the change.

iii. The change shall not qualify for the shield under paragraph (d) of Rule 603.

iv. The permittee should keep a record describing changes made at the source that result in emissions of a regulated air pollutant subject to an applicable requirement, but not otherwise regulated under the permit, and the emissions resulting from those changes.

c. A permitted facility cannot make changes without a permit revision if such changes are modifications under any provision of Title I of the Act.

43. a. The permittee may make changes under section 502(b)(10) of the Act without requiring a permit revision if such changes:

1. are not modifications under any provision of Title I of the Act,

2. do not exceed the allowable emissions under the permit,

3. do not result in the emission of any pollutant not previously emitted,

4. do not violate any applicable requirement or contravene federally enforceable terms and permit conditions such as monitoring (including test methods), recordkeeping, reporting and compliance certification requirements,

5. are not changes under Title I of the Act to an emission limit, a work practice or a voluntary emission cap.

b. Rule 203 of the RCAP is required for any construction or modification of an emission source. For purposes of part II of the RCAP, a modification is defined as any physical change in, change in the method of operation or a change in type of fuel used of an existing stationary source, that would result in a net increase in that stationary source's potential to emit any air pollutant (subject to any standard), or which results in the emission of any pollutant (subject to an standard) not previously emitted. A physical change shall not include routine maintenance, repair and the replacement of any equipment having the same capacity, equal efficiency or greater environmental benefit to be used for the same purpose.

c. The written notification addressed in condition 41(a)(1) refers to changes covered under condition 41(a)(1). Changes not covered will be processed under the requirements of Rule 203 of the RCAP.

d. Any emission trading as provided in condition 41(a)(2) above will not be authorized if the facility does not provide the reference to the PR-SIP provisions authorizing such emissions trading.

e. If the permittee requests so, the Board may allow the emission trading in the facility solely for the purpose of complying with a federally enforceable emissions cap. The application shall be based on replicable procedures

and shall include permit terms that ensure the emission trades are quantifiable, replicable and enforceable.

f. Off-permit changes will not be exempt from complying with the requirements and procedures of Rule 203 of the RCAP, if applicable.

Section IV – Allowable Emissions

A. The emissions described in the table below represent the allowable emissions at the time of the permit application and will be used only for payment purposes.

Pollutants	Allowable Emissions (ton/year)[12]
PM_{10}	78.60
SO_2	8.08
NOx	32.8
CO	107.91
NMOC	53.05
VOC (combustion)	16.52
HAPs	14.83
HCl	3.97
CO_2e	280,049.96

B. In accordance with EQB Resolution RI-06-02[13], emission calculations shall be based on the permittee's actual emissions; however, calculations based on allowable emissions from the facility shall be accepted. If the permittee chooses to make calculations based on allowable emissions, the permittee must pay the same charge per ton as the facilities that choose to make the calculation based on actual emissions.

C. In accordance with Rule 610(a) of the RCAP, when the permittee requests a modification, administrative change, or minor modification to its Title V permit, the source will pay only the charges related to the increases in emissions (if any) per ton, based on the change and not based on the total fee previously paid in accordance with Rule 610(a) of the RCAP.

[12] Authorized in the construction permit PFE-RH-36-0304-0007-I-II-III-C, on October 1, 2019.
[13] EQB Resolution, Procedure for Payment of Title V Operating Fees and Title V Permit Renewal Fees, amendment March 20, 2006.

D. In accordance with EQB's Resolution R-04-04-1[14], in determining modification and renewal charges, the permittee shall calculate allowable emissions using the factors k, L_0, and C_{NMOC} set forth in section 60.754(a)(1)(i) of 40 CFR or the specific values of k and C_{NMOC} as determined by section 60.754(a)(3)(i) or 60.754(a)(4) of 40 CFR.

E. In accordance with EQB Resolution R-12-17-5[15], those sources that must include or estimate GHG emission are exempt from payment for Greenhouse Gases (expressed as CO_2e) in accordance with the Tailoring Rule for Title V permits until the DNER issues a final determination stating the emission charges or any other charges if needed, or if Resolution R-12-17-5 is revoked, whichever comes first.

F. To perform the calculations and demonstrate compliance with the allowable emissions in the Table in this section, the permittee shall use:

   a. The emission factors of Section 2.4 – Municipal Waste Landfills of the AP-42.

      i. If there is no landfill-specific data, you can use the default values for SO_2 and HCl.

      ii. The permittee must calculate both the emissions collected and controlled as well as the emissions not collected (fugitive).

      iii. The values used must be consistent with any Resolution and Order issued by the DNER.

   b. For fugitive emissions from paved roads, unpaved and piles, the formulas and emission factors of the AP-42 must be used.

   c. To calculate CD-1 and CD-2 emissions, the permitte may use the factors guaranteed by the manufacturer, that is 0.06 lb NO_x/MMBtu for NO_x and 0.20 lb CO/MMBtu for CO.

   d. For CO_2e the permittee shall use those provided in Table A-1, A-2, C-1, C-2 of Part 98 of the Mandatory Reporting Rule. The permittee must calculate both the collected and controlled emissions and uncollected (fugitive) emissions.

[14] Resolution of the EQB, Consultation with the Governing Board on the annual calculation of gas emissions into the atmosphere for Sanitary Landfills, issued on February 27, 2004.
[15] EQB Resolution, *PR Tailoring Requirements for Greenhouse Gases* (GHG) – Payment Waiver issued on September 7, 2012.

e. For emissions from engines, the permittee must use the emission factors certified by the manufacturer.

Section V – Specific Permit Conditions

A. Compliance with Rule 402 of the RCAP (Open Burning) for EU-1:

1. In accordance with Rule 402(D) of the RCAP, the permittee shall not permit open field burning of waste, tires, or any other solid waste disposed of in EU-1. In order to comply, the permittee must prepare and obtain immediate approval for the following operating procedures, within 90 days of the effective date of this permit:

   a. A fire mitigation plan to control any open field burning on the property or near sanitary landfill boundaries.

   b. A fire mitigation plan must have the concurrence of the Municipal and State Fire Departments.

B. Requirements for the EU-1 emission unit

1. The permittee shall not cause or permit the discharge of visible emissions of fugitive dust beyond the boundary line of the property where the emissions originate. [Rule 404(B) of the RCAP]

2. The permittee shall conduct visible inspections to determine whether or not there are visible fugitive dust emissions beyond the boundary of the SRS during each day of operation to determine compliance with the visible fugitive dust emission limits set forth in condition **B.1** of this section.

3. The permittee shall keep a record of the results of the daily visible inspections. This record must be kept accessible at any time in the facility for review by the technical staff of the DNER and the EPA.

4. The permittee shall use dust suppression measures, as necessary, to comply with the limits specified under condition **B.1** of this section.

5. The permittee shall keep daily records of each use of manually operated and intermittent process dust suppression equipment. For example: the operation of water trucks to spray the roads. This record must be kept accessible at any time in the facility for review by the technical staff of the DNER and the EPA.

6. The permittee shall maintain appropriate dust suppression and functional equipment in the SRS at all times during the operation of the SRS.

7. The permittee shall cover, at all times when in motion, of open bodied trucks transporting materials likely to give rise to airborne dusts. [RCAP Rule 404(A)(4)]

8. The permittee shall pave the roadways and keep maintain them in a clean condition or implement the other fugitive dust control measures set forth in Rule 404(A) of the RCAP.

9. The permittee shall promptly remove soil or other material that has accumulated on paved roads due to the transportation by trucks or earth-moving equipment, by erosion by water, or other means. [Rule 404(A)(7)d of the RCAP]

10. Every area, lot or part of a piece of land that is intended for the parking and that has a capacity greater than 900 square feet, must be paved with concrete, asphalt, equivalent hard surface or chemically stabilization, in all its accesses and internal roads where unpaved roads adjoin paved roads and parking areas. [Rule 404(D) of the RCAP]

11. The permittee shall retain all required records and support information for a period of 5 years from the date of the record.

12. The maximum design capacity of **El Coquí Landfill** will not exceed **44,037,069 megagrams [16].** [PFE-RH-36-0304-0007-I-II-III-C, Aug 17, 2016]

13. The construction permit PFE-RH-36-0304-0007-I-II-III-C was granted under the specifications established in the Design Plan for the Gas Collection and Extraction System as approved on September 16, 2008. The Design Plan for the Gas Collection and Extraction System for the 1,000 scfm flare (CD-2) is under the designation of the Environmental Protection Agency for evaluation. If there are discrepancies between the Design Plan and the construction permit PFE-RH-36-0304-0007-I-II-III-C, the PFE-RH-36-0304-0007-I-II-III-C descriptions and conditions shall prevail. Any change in the footprint, initial capacity, control equipment that is not included in the approved Design Plan, must be submitted to the DNER for evaluation

[16] The design capacity was amended on August 17, 2016. [Resolution R-16-2022, 8-Jul-2022; Resolution of Adjudicative Procedure for PFE-TV-4953-36-1001-2294]

requesting a review or modification to the construction permit PFE-RH-36-0304-0007-I-II-III-C, as applicable. [PFE-RH-36-0304-0007-I-II-III-C]

14. The permittee shall confirm annually, using the LandGEM Model or any other method required by DNER, that its existing control equipment will have the necessary capacity to control the maximum expected flow of landfill gas generated for the next five (5) years. Pursuant to 40 CFR §60.755, the permittee shall use the methods set forth in paragraphs (a)(1) through (a)(6) to determine whether the gas collection system is in compliance with 40 CFR §60.752(b)(2)(ii). The permittee shall use any of the equations set forth in 40 CFR §60.755(a) for purposes of calculating the maximum expected gas generation flow ratio to determine compliance with 40 CFR §60752(b)(2)(ii)(A)(1). This information will be included with the annual certification of the facility's emissions. The permittee shall submit revisions or modifications to its construction permit, operation and Design Plan at least 12 months prior to the estimated date on which the capacity of existing control equipment may be exceeded and prior to the installation and/or construction of such equipment. Once the necessary permits are obtained, the permittee will install or implement additional control measures. The permittee shall ensure that the Design Plan:

    a. Cover the area to be controlled during the intended period of use (lifetime) of the gas control system. In each report, the permittee should specifically include the lifetime for each control equipment.

    b. The collection and control system must be designed to handle the maximum expected gas generation rate of the entire landfill area (area that meets the gas collection and control criteria), which guarantees control over the previous period of the control equipment.

    c. The collection system shall comply with 40 CFR §60.752(b)(2)(ii)(A).

15. SRS activities that include stevedoring, deck hauling, unpaved and paved roads are limited to an operation of 3,120 hours per year. The speed of vehicles on unpaved roads shall not exceed 15 miles per hour. For these sources, the permittee shall apply or use, as necessary, water spraying, vacuum sweeping, and/or broom sweeping and flushing to control fugitive emissions.

C. Condition under Part 60, Subpart WWW of Title 40 of the Code of Federal Regulations (40 CFR), Standards of Performance for Municipal Solid Waste Landfills that commenced construction, reconstruction, or modification on or after May 30, 1991, but before July 18, 2018.

1. The permittee shall comply with all applicable requirements of the Standards of Performance for Municipal Solid Waste Landfills that began construction, reconstruction, or modification on or after May 30, 1991, but before July 18, 2014, contained in Subpart WWW of Part 60, Title 40 of the Code of Federal Regulations (40 CFR) for the EU-1 unit.

2. The Municipal Landfill System must continue to comply with this subpart until it[17]:

    a. Becomes subject to the more stringent requirements in an approved and effective state or federal plan that implements subpart Cf of 40 CFR part 60; or

    b. Modifies or reconstructs after July 17, 2014, and thus becomes subject to subpart XXX of 40 CFR part 60.

3. The permittee shall install and operate a gas collection and control system that complies with all applicable requirements of 40 CFR Part 60, Subpart WWW.

4. The permittee shall submit a collection and control system design plan prepared by a professional engineer to the Environmental Protection Agency (EPA) with a copy to the DNER within 1 year, if the calculated of Non-Methane Organic Compounds (NMOC) emission rate is equal to or greater than 50 megagrams per year according to section 60.754[18]. [40 CFR §60.752(b)(2)(i)]

    a. The collection and control system design plan shall include any alternatives to the operational standards, test methods, procedures, compliance measures, monitoring, recordkeeping or reporting provisions of §§ 60.753 through 60.758 of the 40 CFR. [40 CFR §60.752(b)(2)(i)(B)]

[17] Section 60.750(d) included in revision of Subpart WWW of 40 CFR Part 60 of 26 MAR 2020.
[18] **ECL** submitted evidence of the most recent Design Plan that was submitted to the DNER to the EPA on April 29, 2014. R-16-22, 8-Jul-2022; Resolution of the Adjudicative Procedure, PFE-TV-4953-36-1001-2294.

b. EPA shall review the information submitted under paragraphs (b)(2)(i)(A), (B), and (C) of §60.752 of the 40 CFR and either approve it, disapprove it, or require that additional information be submitted. [40 CFR §60.72(b)(2)(i)(D)]

5. The permittee shall install a collection and control system that captures the gas generated within the landfill within 30 months after the first annual report in which the emission rate equals or exceeds 50 megagrams per year, unless Tier 2 or Tier 3 sampling demonstrate that the emission rate is less than 50 megagrams per year, as specified in section 60.757(c)(1) or (2) of the 40 CFR.[19] [40 CFR §60.752(b)(2)(ii)]

6. The permittee shall route all the collected gas to a control system that complies with the requirements of paragraph (b)(2)(iii)(B) of section 60.752 of 40 CFR.

   a. The enclosed combustion chambers (flares CD-1 and CD-2) shall be designed and operated to reduce the NMOC by 98% weight or reduce the outlet NMOC concentration to less than 20 parts per million by volume, dry basis as hexane at 3% oxygen. The reduction of efficiency or parts per million by volume shall be established by an initial performance test using the test method specified in section 60.754[20] of 40 CFR. [40 CFR §60.752(b)(2)(iii)(B)]

   b. The permittee may direct collected landfill gas to a duly licensed energy recovery facility as long as the gas is treated through the primary treatment system.

7. The owner or operator shall operate the collection and control device installed in accordance with sections 60.753, 60.755, and 60.756 of 40 CFR. [40 CFR §60.752(b)(2)(iv)]

8. The collection and control system may be capped or removed to meet the following conditions: [40 CFR §60.752(b)(2)(v)]

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[19] **ECL** submitted evidence of the most recent Gas Collection System Design Plan that was submitted to the DNER and EPA on April 29, 2014. According to **ECL**, this equipment began operations in August 2006 and the result of its first efficiency test was submitted to the EQB on November 14, 2006. R-16-22, 8 JUL 2022; Resolution of the Adjudicative Procedure, PFE-TV-4953-36-1001-2294.

[20] **ECL** presented evidence that efficiency testing was performed for both flares for the CD-1 flare on November 14, 2006, and November 17, 2006, at the EPA. For the CD-2 flare, the report was submitted on 15 January 20 14. R-16-22, 8 JUL 2022; Resolution of the Adjudicative Procedure, PFE-TV-4953-36-1001-2294.

a. The landfill shall be a closed landfill as defined in § 60.751 of 40 CFR. A closure report shall be submitted to the EPA with a copy to the DNER as provided in section 60.757(d) of 40 CFR. [40 CFR §60.752(b)(2)(v)(A)];

b. The collection and control system shall have been in operation for a minimum of 15 years; and [40 CFR §60.752(b)(2)(v)(B)]

c. Following the procedures specified in section 60.754(b) of 40 CFR, the calculated NMOC gas produced by the landfill shall be at less than 50 megagrams per year on three successive tests dates. The test dates shall be no less than 90 days apart, and no more than 180 days apart. [40 CFR §60.752(b)(2)(v)(C)]

d. A closure report shall be submitted to DNER. [PFE-RH-36-0304-0007-I-II-III-C]

9. Operate the collection system such that gas is collected from each area, cell, or group of cells in the MSW landfill in which solid waste has been in place for 5 years or more, if active; or 2 years or more if closed or at final grade. [40 CFR §60.753(a)]

10. The permittee shall operate the collection system with negative pressure at each wellhead except under the following conditions: [40 CFR §60.753(b)]

    a. A fire or increase well temperature. The owner or operator shall record instances when positive pressure occurs in an effort to avoid fire. These records shall be submitted with the annual report as provided in section 60.757(f)(1);

    b. Use of a geomembrane or a synthetic cover. The owner or operator shall develop acceptable pressure limits in the design plan.

    c. A decommissioned well. A well may experience static positive pressure after shutdown to accommodate for declining flow. All design changes shall be approved by the EPA.

11. Operate each interior wellhead in the collection system with a landfill gas temperature less than 55 °C and with either a nitrogen level less than 20 % or an oxygen level less than 5 %. The owner or operator may establish a higher operating temperature, nitrogen, or oxygen value at a particular well. A higher operating value demonstration shall show supporting data that the elevated parameter does

not cause fires or significantly inhibit anaerobic decomposition by killing methanogens. [40 CFR §60.753(c)]

a. The nitrogen level shall be determined using Method 3C, unless an alternate test method is established as allowed by section 60.752(b)(2)(i) of 40 CFR.

b. Unless an alternative test method is established as allowed by § 60.752(b)(2)(i) of 40 CFR, the oxygen shall be determined by an oxygen meter using Method 3A or 3C except that:

   i. The span shall be set so that the regulatory limit is between 20 and 50 % of the span;

   ii. Data recorded is not required;

   iii. Only two calibration gases are required, zero and span, and ambient air may be used as the span.

   iv. A calibration error check is not required.

   v. The allowed sample bias, zero drift, and the calibration drift are ±10 %.

12. Operate the collection system so that the methane concentration is less than 500 parts per million above backgrounds at the surface of the landfill. To determine if this level is exceeded, the owner or operator shall conduct surface testing around the perimeter of the collection area and along with a pattern that traverses the landfill at 30-meter intervals and where visual observations indicate elevated concentrations of landfill gas, such as distressed vegetation and cracks or seeps in the cover. The owner or operator may establish an alternative traversing pattern that ensures equivalent coverage. A surface monitoring design plan shall be developed that includes a topographical map with the monitoring route and the rationale for any site-specific deviations from the 30-meter intervals. Areas with steep slopes or other dangerous areas may be excluded from the surface testing [40 CFR §60.753(d)]

13. Operate the system such that all collected gases are vented to a control system designed and operated in compliance with § 60.752(b)(2)(iii). In the event the collection or control system is inoperable, 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. [40 CFR §60.753(e)]

14. Operate the control or treatment system (CD-1 and CD-2) at all times when the collected gas is routed to the system. [40 CFR §60.753(f)]

15. According to section 60.753(g) of the 40 CFR, if monitoring demonstrates that the operational requirements in paragraphs (b), (c), or (d) of §60.753 are not met, corrective action[21] shall be taken as specified in § 60.755(a)(3) through (5) or § 60.755(c) of 40 CFR. If corrective actions are taken as specified in § 60.755, the monitored exceedance is not a violation of the operational requirements in section 60.753 of 40 CFR.

16. The owner or operator shall calculate the NMOC emission rate using the equations provided in section 60.754 of 40 CFR. The owner or operator shall compare the calculated NMOC mass emission rate to the standard of 50 megagrams per year.[22]

17. The owner or operator may use other methods to determine the NMOC concentration or site-specific K constant as an alternative to the methods required in §60.754 if the method has been approved by the EPA, as provided in section 60.754(a)(5) of the 40 CFR.[23]

18. When calculating emissions for PSD purposes, the owner or operator of each MSW landfill subject to the provisions of the WWW subpart shall estimate the NMOC emission rate for comparison to the PSD major source and significance levels in sections 51.166 or 52.21 of 40 CFR using AP-42 or other approved measurement procedures. [40 CFR§60.754(c)]

19. According to section 60.754(d) of 40 CFR, for the performance test required in section 60.752(b)(2)(iii)(B) of 40 CFR, Method 25, 25C, or Method 18 of Appendix A of 40 CFR Part 60 must be used to determine compliance with the 98 weight-percent efficiency or the 20 ppmv output concentration level, unless another method to demonstrate compliance has been approved by EPA, as provided by section 60.752(b)(2)(i)(B) of the 40 CFR. Method 3 or 3A shall be used to determine

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[21] Monitoring results demonstrating that operational requirements were not met should be documented before corrective action is taken. Corrective action must also be documented.

[22] **ECL** has already reached the emission rate of 50 MG and is therefore subject to the provisions applicable to facilities exceeding that capacity. This requirement applies to facilities that have not reached that capacity and must continue to demonstrate that they continue to be exempt from the regulation because they have not reached 50 MG. R-16-22, 8 JUL 2022; Resolution of the Adjudicative Procedure, PFE-TV-4953-36-1001-2294.

[23] **ECL** has already reached the emission rate of 50 MG and is therefore subject to the provisions applicable to facilities exceeding that capacity. This requirement applies to facilities that have not reached that capacity and must continue to demonstrate that they continue to be exempt from the regulation because they have not reached 50 MG. R-16-22, 8 JUL 2022; Resolution of the Adjudicative Procedure, PFE-TV-4953-36-1001-2294.

oxygen for correcting the NMOC concentration as hexane to 3 percent. In cases where the outlet concentration is less than 50 ppm NMOC as carbon (8 ppm NMOC as hexane), Method 25A should be used in place of Method 25. If using Method 18 of appendix A of part 60 of 40 CFR, the minimum list compounds to be tested shall be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42). Equation in section 60.754(d) of 40 CFR shall be used to calculate efficiency.

20. Except as provided in § 60.752(b)(2)(i)(B), the specified methods in paragraphs (a)(1) through (a)(6) of §60.755 shall be used to determine whether the gas collection system is in compliance with § 60.752(b)(2)(ii). [40 CFR §60.755]

    a. For the purposes of calculating the maximum expected gas generation flow rate from the landfill to determine compliance with § 60.752(b)(2)(ii)(A)(*1*), one of the following equations shall be used. The k and L_o kinetic factors should be those published in the most recent Compilation of Air Pollutant Emission Factors (AP-42), or other site-specific values demonstrated to be appropriate and approved by the EPA. If k has been determined as specified in § 60.754(a)(4), the value of k determined from the test shall be used. A value of no more than 15 years shall be used for the intended use period of the gas mover equipment. The active life of the landfill is the age of the landfill plus the estimated number of years until closure[24].

        i. For sites with an unknown year-to-year solid waste acceptance rate, the equation provided in section 60.755(a)(1)(i) of 40 CFR shall be used.

        ii. For sites with a known year-to-year solid waste acceptance rate the equation provided in section 60.755(a)(1)(ii) of 40 CFR shall be used.

        iii. If a collection and control system has been installed, actual flow data may be used to project the maximum expected gas generation flow rate instead of, or in conjunction with, the equations in section 60.755(a)(1)(i) and (ii) of 40 CFR. If the landfill is still accepting waste, the actual measured flow data will not equal the maximum expected gas generation rate, so calculations using the equations section 60.755(a)(1)(i) or (ii) of 40 CFR, or other methods

[24] According to **ECL**, since August 2006, the landfill system began operations of the gas collection system as required by 40 CFR part 60, Subpart WWW. **ECL** presented evidence that efficiency testing was performed for both flares for the CD-1 flare on November 14, 2006, and November 17, 2006, at the EPA. For the CD-2 flare, the report was submitted on January 15, 2014. R-16-22, 8 JUL 2022; Resolution of the Adjudicative Procedure, PFE-TV-4953-36-1001-2294.

shall be used to predict the maximum expected gas generation rate over the intended period of use of the gas control system equipment.

b. For purposes of determining the sufficient density of gas collectors for compliance with section 60.752(b)(2)(ii)(A)(20) of the CFR, the owner or operator shall design a system of vertical wells, horizontal collectors, or other collection devices, satisfactory to the EPA, and send a copy to DNER, capable of controlling and extracting gases from all portions of the landfill sufficient to meet all operational and performance standards[25]. [40 CFR 60.755(a)(2)]

c. For purposes of demonstrating whether the gas collection system flow rate is sufficient to determine compliance withs section 60.752(b)(2)(ii)(A)(3), the owner or operator shall measure gauge pressure in the gas collection header at each individual well, monthly. If positive pressure exists, action be initiated to correct the exceedance within 5 calendar days, except for the three conditions allowed under § 60.753(b). If negative pressure cannot be achieved without excess air infiltration within 15 calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within 120 days of the initial measurement of positive pressure. Any attempted corrective measure shall not cause exceedances of other operational or performance standards. An alternative timeline for correcting the exceedance may be submitted to the EPA for approval. [A copy of the request for an alternate itinerary and the EPA's response to it must be sent to the DNER.] [40 CFR §60.755(a)(3)]

d. Owners or operators are not required to expand the system as required in section 60.755(a)(3) of 40 CFR, for the first 180 days after gas collection system startup. [40 CFR 60.755(a)(4)]

e. For the purpose of identifying whether excess air infiltration into the landfill is occurring, the owner or operator shall monitor each well monthly for temperature and nitrogen or oxygen as provided in § 60.753(c). If a well exceeds one of these operating parameters, action shall be initiated to correct the exceedance within 5 calendar days. If correction of the exceedance cannot be achieved within 15 calendar days of the first measurement, the gas collection system shall be expanded to correct the exceedance within 120 days of the initial exceedance. Any attempted corrective measure shall not cause exceedances of other operational or performance standards. An alternative

[25] The gas collection system began operation in August 2006.

timeline for correcting the exceedance may be submitted to the EPA for approval, with a copy to the DNER, for approval. [40 CFR §60.755(a)(5)]

f. An owner or operator seeking to demonstrate compliance with §60.752(b)(2)(ii)(A)(4) through the use of a collection system not conforming to the specifications provided in §60.759 shall provide information satisfactory to the EPA with a copy to the DNER as specified in §60.752(b)(2)(i)(C) demonstrating that off-site migration is being controlled. [40 CFR 60.755(a)(6)]

21. For purposes of compliance with §60.753(a), each owner or operator of a controlled landfill shall place each well or design component as specified in the approved design plan, as provided in §60.752(b)(2)(i). Each well shall be installed no later than 60 days after the date on which the initial solid waste has been in place for a period of 5 years or more if active; or 2 years or more if closed or at final grade. [40 CFR 60.755(b)]

22. In accordance with 40 CFR section 60.755(c), the owner or operator shall use the following procedures for compliance with the surface methane operating standard.

a. After installation of the collection system, the owner or operator shall monitor surface concentrations of methane along the entire perimeter of the collection area and along a pattern that traverses the landfill at 30-meter intervals (or in site-specific established spaces) for each collection area on a quarterly basis using an organic vapor analyzer, flame ionization detector, or other portable monitor meeting the specifications provided in §60.755(d) of 40 CFR.

b. The background concentration shall be determined by moving the probe inlet upwind and downwind outside the boundary of the landfill at a distance of at least 30 meters from the perimeter wells.

c. Surface emission monitoring shall be performed in accordance with section 4.3.1 of Method 21 of Appendix A of 40 CFR Part 60, except that the probe input shall be placed within 5 to 10 centimeters of the ground. Monitoring shall be performed during typical meteorological conditions.

d. Any reading of 500 parts per million (ppm) or more above the background at any location shall be recorded as a monitored exceedance and the actions specified herein shall be taken. While the specified actions are taken, the

exceedance shall not constitute a violation of the operational requirements of 40 CFR section 60.755(c)(i) through (v).

i. The location of each monitored exceedance shall be marked and the location recorded.

ii. Cover maintenance or adjustments to the vacuum of the adjacent wells to increase the gas collection in the vicinity of each exceedance shall be made and the location shall be re-monitored within 10 calendar days of detecting the exceedance. If the test is repeated and it shows a second exceedance, additional corrective action shall be taken and the location shall be resampled within 10 days of the second exceedance.

iii. Any location that initially showed an exceedance but has a methane concentration less than 500 ppm methane above background after 10 days of re-monitoring, it shall be re-monitored 1 month from the initial exceedance. If the 1- month remonitoring shows a concentration of less than 500 parts per million above background, no further monitoring of that location is required until the next quarterly monitoring period. If the 1-month remonitoring shows an exceedance, the actions specified in the next paragraph shall be taken.

iv. For any location where monitored methane concentration equals or exceeds 500 parts per million above background three times within a quarterly period, a new well or other collection device shall be installed within 120 calendar days of the initial exceedance. An alternative remedy to the exceedance, such as upgrading the blower, header pipes or control device, and a corresponding timeline for installation may be submitted to the EPA for approval, with a copy to DNER, and the site will not need to be monitored until the action is taken.

v. The owner or operator shall implement a program to monitor cover integrity and implement cover repairs as necessary on a monthly basis.

23. The owner or operator seeking to comply with the procedures of section 60.755(c) of the 40 CFR, shall comply with the following instrumentation specifications and procedures for surface emission monitoring devices in accordance with 40 CFR section 60.755(d) of the 40 CFR:

a. The portable analyzer shall meet the instrumentation specifications provided in section 3 of Method 21 of Appendix A of part 60 of 40 CFR, except that "methane" shall replace all references to VOCs.

b. The calibration gas shall be methane, diluted to a nominal concentration of 500 parts per million in air.

c. To meet the performance evaluation requirements in section 3.1.3 of Method 21, Appendix A of part 60 of 40 CFR, the instrument evaluation procedures of section 4.4 of Method 21, Appendix A of part 60 of 40 CFR shall be used.

d. The calibration procedures provided in section 4.2 of Method 21, Appendix A of part 60 of 40 CFR shall be followed immediately before commencing a surface monitoring survey.

24. The provisions of subpart WWW of 40 CFR Part 60 apply at all times, except during periods of start-up, shutdown, or malfunctions[26], provided that the duration of the start-up, shutdown, or malfunction shall not exceed 5 days for collection systems and shall not exceed 1 hour for treatment or control devices.

25. **Monitoring Active Gas Collection Systems:** In accordance with section 60.756, except as provided in 40 CFR section 60.752(b)(2)(i)(B), the owner or operator seeking to comply with section 60.752(b)(2)(ii)(A) of 40 CFR for an active gas collection system shall install a sampling port and a thermometer, other temperature measuring device, or an access port for temperature measurements at each wellhead and;

    a. Measure the gauge pressure in the gas collection header on a monthly basis as provided in 40 CFR section 60.755(a)(3); and

        i. Monitor nitrogen or oxygen concentration in the landfill gas on a monthly basis as provided in §60.755(a)(5); and

        ii. Monitor temperature of the landfill gas on a monthly basis as provided in §60.755(a)(5).

[26] Refers to the current definition of malfunction as defined in subpart A of part 60 of 40 CFR.

26. **Monitoring for Enclosed Combustor (CD-1 and CD-2):** In accordance with 40 CFR section 60.756(b), the owner or operator shall calibrate, maintain, and operate according to the manufacturer's specifications, the following equipment:

    a. A temperature monitoring device equipped with a continuous recorder and having a minimum accuracy of ±1 percent of the temperature being measured expressed in degrees Celsius or ±0.5 degrees Celsius, whichever is greater.

    b. A device that records flow to or bypass of the control device. The owner or operator shall either:

        i. Install, calibrate, and maintain a gas flow rate measurement device that shall record the flow to the control device at least every 15 minutes; or

        ii. Secure the bypass line valve in the closed position with a car-seal or lock-and-key configuration. A visual inspection of the seal or closure mechanism shall be performed at least once every month to ensure that the valve is maintained in the closed position and that the gas flow is not diverted through the bypass line.

27. Except as provided in section 60.752(b)(2)(i)(B) of the 40 CFR, the owner or operator seeking to install a collection system that does not meet the specifications in § 60.759 or seeking to monitor alternative parameters to those required by §§ 60.753 through 60.756 of the 40 CFR shall provide information satisfactory to the EPA as provided in § 60.752(b)(2)(i) (B) and (C) describing the design and operation of the collection system, the operating parameters that would indicate proper performance, and appropriate monitoring procedures. The EPA may specify additional appropriate monitoring procedures. [40 CFR § 60.756(e)]

28. The owner or operator seeking to demonstrate compliance with § 60.755(c) of the 40 CFR, shall monitor surface concentrations of methane according to the instrument specifications and procedures provided in § 60.755(d) of the 40 CFR. Any closed landfill that has no monitored exceedances of the operational standard in three consecutive quarterly monitoring periods may skip annual monitoring. Any methane reading of 500 ppm or more above background detected during the annual monitoring returns the frequency for that landfill to quarterly monitoring. [40 CFR 60.756(f)]

29. Except as provided in section 60.752(b)(2)(i)(B) of 40 CFR, the owner or operator shall submit a NMOC emission rate report to EPA with a copy to the DNER

initially and annually thereafter, except as provided in section 60.757(b)(1)(ii) or (b)(3) of 40 CFR. The EPA or DNER may request additional information as may be necessary to verify the reported NMOC emission rate. It shall submit subsequent NMOC emission rate reports annually[27]. [40 CFR §60.757(b)]

30. In accordance with §60.757(b)(1), the NMOC emission rate report shall contain an annual or 5-year estimate of the NMOC emission rate calculated using the formula and procedures provided in §60.754(a) or (b), as applicable[28].

31. According to §60.757(b)(1)(ii), if the estimated NMOC emission rate as reported in the annual report to the EPA and the DNER is less than 50 megagrams per year in each of the next 5 consecutive years, the owner or operator may elect to submit an estimate of the NMOC emission rate for the next 5-year period in lieu of the annual report. This estimate shall include the current amount of solid waste-in-place and the estimated waste acceptance rate for each year of the 5 years for which an NMOC emission rate is estimated. All data and calculations upon which this estimate is based shall be provided to the EPA with a copy to DNER. This estimate shall be revised at least once every 5 years. If the actual waste acceptance rate exceeds the estimated waste acceptance rate in any year reported in the 5-year estimate, a revised 5-year estimate shall be submitted to the EPA with a copy to the DNER. The revised estimate shall cover the 5-year period beginning with the year in which the actual waste acceptance rate exceeded the estimated waste acceptance rate[29].

32. In accordance with §60.757(b)(2) of 40 CFR, the NMOC emission rate report shall include all data, calculations, sample report and measures used to estimate annual or every 5-year emissions[30].

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[27] **ECL** has already reached the emission rate of 50 MG and is therefore subject to the provisions applicable to facilities exceeding that capacity. This requirement applies to facilities that have not reached that capacity and must continue to demonstrate that they continue to be exempt from the regulation because they have not reached 50 MG. R-16-22, 8 JUL 2022 - Adjudicative Procedure Resolution, PFE-TV-4953-36-1001-2294.

[28] **ECL** has already reached the emission rate of 50 MG and is therefore subject to the provisions applicable to facilities that exceed that capacity. This requirement applies to facilities that have not reached that capacity and must continue to demonstrate that they continue to be exempt from the regulation because they have not reached 50 MG.

[29] **ECL** has already reached the emission rate of 50 MG and is therefore subject to the provisions applicable to facilities that exceed that capacity. This requirement applies to facilities that have not reached that capacity and must continue to show that they continue to be exempt from the regulation as they have not reached 50 MG. R-16-22, 8 JUL 2022 - Adjudicative Procedure Resolution, PFE-TV-4953-36-1001-2294.

[30] **ECL** has already reached the emission rate of 50 MG and is therefore subject to the provisions applicable to facilities that exceed that capacity. This requirement applies to facilities that have not reached that capacity and must continue to show that they continue to be exempt from the regulation as they have not reached 50 MG. R-16-22, 8 JUL 2022 - Adjudicative Procedure Resolution, PFE-TV-4953-36-1001-2294.

33. According to section 60.757(b)(2) of the 40 CFR, the owner or operator is exempted from the requirements of §60.757 (b)(1) and (2) of 40 CFR, after the installation of a collection and control system in compliance with § 60.752(b)(2) of the 40 CFR, during such time as the collection and control system is in operation and in compliance with §§ 60.753 and 60.755 of the 40 CFR.

34. The owner or operator of a controlled landfill shall submit a closure report to EPA with a copy to the DNER within 30 days of waste acceptance cessation, according to section 60.757(d) of the 40 CFR. The EPA or the DNER may request additional information as may be necessary to verify that permanent closure has taken place in accordance with the requirements of section 25860 of the 40 CFR. If a closure report has been submitted to the EPA with a copy to the DNER, no additional wastes may be placed into the landfill without filing a notification of modification as described under § 60.7(a)(4) of the 40 CFR.

35. After a collection and control system is installed in compliance with the established rules, the owner or operator shall calculate the NMOC emission rate using the equations in 40 CFR section 60.754 to determine when the system can be removed.

36. The owner or operator of a controlled landfill shall submit an equipment removal report to the EPA with a copy to the DNER 30 days prior to removal or cessation of operation of the control equipment CD-1 and CD-2, according to section 60.757(e) of the 40 CFR. [§60.757(e) of 40 CFR]. The equipment removal report shall contain all of the following items:

    a. A copy of the closing report submitted in accordance with §60.757(d) of the 40 CFR;

    b. A copy of the initial performance test report demonstrating that the 15-year minimum control period has expired; and

    c. Dated copies of three successive NMOC emission rate reports demonstrating that the landfill is no longer producing 50 megagrams or greater of NMOC per year.

37. In accordance with §60.757(e)(2) of the 40 CFR, the EPA may request such additional information as may be necessary to verify that all of the conditions for removal in § 60.752(b)(2)(v) have been met.

38. In accordance with §60.757(f) of the 40 CFR, the owner or operator of a landfill seeking to comply with § 60.752(b)(2) of the 40 CFR using an active collection system designed in accordance with § 60.752(b)(2)(ii) of the 40 CFR shall submit to the EPA with a copy to the DNER annual reports of the recorded information described next. The initial annual report shall be submitted within 180 days of installation and start-up of the collection and control system, and shall include the initial performance test report required under § 60.8 of the 40 CFR For enclosed combustion devices and flares, reportable exceedances are defined under § 60.758(c) of the 40 CFR.

    a. Value and length of time for exceedance of applicable parameters monitored under § 60.756(a), (b), (c), and (d) of the 40 CFR.

    b. Description and duration of all periods when the gas stream is diverted from the control device through a bypass line or the indication of bypass flow as specified under § 60.756 of the 40 CFR.

    c. Description and duration of all periods when the control device was not operating for a period exceeding 1 hour and length of time the control device was not operating.

    d. All periods when the collection system was not operating in excess of 5 days.

    e. The location of each exceedance of the 500 parts per million methane concentration as provided in § 60.753(d) of the 40 CFR and the concentration recorded at each location for which an exceedance was recorded in the previous month.

    f. The date of installation and the location of each well or collection system expansion added pursuant to paragraphs (a)(3), (b), and (c)(4) of § 60.755 of 40 CFR.

39. The owner or operator seeking to comply with § 60.752(b)(2)(iii) of the 40 CFR shall include the following information with the initial performance test report required under § 60.8:[31].

[31] **ECL** presented evidence that efficiency tests were performed for both flares; for the CD-1 flare on November 14, 2006, and on November 17, 2006, at the APA. For the CD-2 flare, the report was submitted on January 15, 2014. R-16-22, 8 JUL 2022 - Adjudicative Procedure Resolution, PFE-TV-4953-36-1001-2294.

a. A diagram of the collection system showing collection system positioning including all wells, horizontal collectors, surface collectors, or other gas extraction devices, including the locations of any areas excluded from collection and the proposed sites for the future collection system expansion;

b. The data upon which the sufficient density of wells, horizontal collectors, surface collectors, or other gas extraction devices and the gas mover equipment sizing are based;

c. The documentation of the presence of asbestos or nondegradable material for each area from which collection wells have been excluded based on the presence of asbestos or nondegradable material;

d. The sum of the gas generation flow rates for all areas from which collection wells have been excluded based on nonproductivity and the calculations of gas generation flow rate for each excluded area; and

e. The provisions for increasing gas mover equipment capacity with increased gas generation flow rate, if the present gas mover equipment is inadequate to move the maximum flow rate expected over the life of the landfill; and

f. The provisions for the control of off-site migration.

40. All SRSs required to comply with the above condition shall report to DNER their achievement of compliance with the progress increments within 60 days after achieving each of the progress increments of the compliance itinerary[32].

41. Except as provided in § 60.752(b)(2)(i)(B) del 40 CFR, the owner or operator of an MSW landfill[33], subject to the provisions of § 60.752(b) of the 40 CFR shall keep for at least 5 years up-to-date, readily accessible, on-site records of the design capacity report which triggered § 60.752(b) of the 40 CFR, the current amount of solid waste in-place, and the year-by-year waste acceptance rate. Off-site records may be maintained if they are retrievable within 4 hours. Either paper copy or electronic formats are acceptable.

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[32] **ECL** presented evidence that efficiency tests were performed for both flares; for the CD-1 flare on November 14, 2006, and on November 17, 2006, at the APA. For the CD-2 flare, the report was submitted on January 15, 2014. R-16-22, 8 JUL 2022 - Adjudicative Procedure Resolution, PFE-TV-4953-36-1001-2294.

[33] The facility operated by **ECL** is a private landfill system that receives municipal waste but is not operated or related to a municipal entity. R-16-22, 8 JUL 2022 - Adjudicative Procedure Resolution, PFE-TV-4953-36-1001-2294.

42. Except as provided in § 60.752(b)(2)(i)(B) of the 40 CFR, the owner or operator of a controlled landfill shall keep up-to-date, readily accessible records for the life of the control equipment of the data listed in paragraphs (b)(1) through (b)(4) of this section as measured during the initial performance test or compliance determination. Records of subsequent tests or monitoring shall be maintained for a minimum of 5 years. Records of the control device vendor specifications shall be maintained until removal.

    a. Where an owner or operator of a municipal landfill seeks to demonstrate compliance with § 60.752(b)(2)(ii) of the 40 CFR:

        i. The maximum expected gas generation flow rate as calculated in § 60.755(a)(1) of the 40 CFR. The owner or operator may use another method to determine the maximum gas generation flow rate if the method has been approved by the EPA.

        ii. The density of wells, horizontal collectors, surface collectors, or other gas extraction devices determined using the procedures specified in § 60.759(a)(1) of the 40 CFR.

    b. Where an owner or operator of a municipal landfill seeks to demonstrate compliance with § 60.752(b)(2)(iii) of the 40 CFR through use of an enclosed combustion device other than a boiler or process heater with a design heat input capacity equal to or greater than 44 megawatts:

        i. The average combustion temperature measured at least every 15 minutes and averaged over the same time period of the performance test.

        ii. The percent reduction of NMOC determined as specified in § 60.752(b)(2)(iii)(B) of the 40 CFR achieved by the control device.

    c. Except as provided in section 60.752(b)(2)(i)(B), the owner or operator of a controlled landfill shall keep for 5 years up-to-date, readily accessible continuous records of the equipment operating parameters specified to be monitored in § 60.756 of the 40 CFR as well as up-to-date, readily accessible records for periods of operation during which the parameter boundaries established during the most recent performance test are exceeded.

d. The following constitute exceedances that shall be recorded and reported under § 60.757(f) of the 40 CFR:

i. For enclosed combustors (CD-1 and CD-2), all 3-hour periods of operation during which the average combustion temperature was more than 28 ^{o}C below the average combustion temperature during the most recent performance test at which compliance with § 60.752(b)(2)(iii) of the 40 CFR was determined.

43. In accordance with 40 CFR section 60.758(c)(2) of the 40 CFR, the owner or operator of a municipal landfill shall keep up-to-date, readily accessible continuous records of the indication of flow to the control device or the indication of bypass flow or records of monthly inspections of car-seals or lock-and-key configurations used to seal bypass lines, specified under § 60.756 of the 40 CFR.

44. Except as provided in § 60.752(b)(2)(i)(B) of the 40 CFR, the owner or operator of a municipal landfill [34] subject to the provisions of this subpart shall keep for the life of the collection system an up-to-date, readily accessible plot map showing each existing and planned collector in the system and providing a unique identification location label for each collector.

a. The owner or operator of a municipal landfill shall keep up-to-date, readily accessible records of the installation date and location of all newly installed collectors as specified under § 60.755(b) of the 40 CFR.

b. The owner or operator of a municipal landfill shall keep readily accessible documentation of the nature, date of deposition, amount, and location of asbestos-containing or nondegradable waste excluded from collection as provided in § 60.759(a)(3)(i) of the 40 CFR as well as any nonproductive areas excluded from collection as provided in § 60.759(a)(3)(ii) of the 40 CFR.

45. Except as provided in § 60.752(b)(2)(i)(B) of the 40 CFR, the owner or operator of a municipal landfill shall keep for at least 5 years up-to-date, readily accessible records of all collection and control system exceedances of the operational standards in § 60.753 of the 40 CFR, the reading in the subsequent month whether or not the second reading is an exceedance, and the location of each exceedance.

[34] The facility operated by **ECL** is a private landfill system that receives municipal waste but is not operated or related to a municipal entity. R-16-22, 8 JUL 2022 - Adjudicative Procedure Resolution, PFE-TV-4953-36-1001-2294.

46. According with §60.759(a) of 40 CFR, the owner or operator seeking to comply with 40 CFR §60.752(b)(2)(i) of the 40 CFR shall site active collection wells, horizontal collectors, surface collectors, or other extraction devices at sufficient density throughout all gas-producing area using the following procedures unless the alternative procedures have been approved by the EPA as provided for in section 60.752(b)(2)(i)(C) and (D) of the 40 CFR.

    a. The collection devices within the interior and along the perimeter areas shall be certified to achieve comprehensive control of surface gas emissions by a professional engineer. The following issues shall be addressed in the design: depths of refuse, refuse gas generation rates and flow characteristics, cover properties, gas system expandability, leachate and condensate management, accessibility, compatibility with filling operations, integration with closure end use, air intrusion control, corrosion resistance, fill settlement, and resistance to the refuse decomposition heat.

    b. The sufficient density of gas collection devices determined in section 60.759(a)(1) of the 40 CFR shall address landfill gas migration issues and augmentation of the collection system through the use of active or passive systems at the landfill perimeter or exterior.

    c. The placement of gas collection devices determined in section 60.759(a)(1) of the 40 CFR shall control all gas producing areas, except as provided below:

        i. Any segregated area of asbestos or nondegradable material may be excluded from collection if documented as provided under § 60.758(d). The documentation shall provide the nature, date of deposition, location and amount of asbestos or nondegradable material deposited in the area and shall be provided to the EPA with a copy to the DNER upon request.

        ii. Any non-productive area of the landfill may be excluded from control, provided that the total of all excluded areas can be shown to contribute less than 1% of the total amount of NMOC emissions from the landfill. The amount, location, and age of the material shall be documented and provided to EPA and DNER upon request. A separate NMOC emissions estimate shall be made for each section proposed for exclusion, and the sum of all such sections shall be compared to the NMOC emissions estimate for the entire landfill.

Emissions from each section shall be computed using the equation described in section 60.759(a)(3)(ii) of the 40 CFR.

iii. The values for k, L_0 and C_{NMOC} determined in field testing shall be used, if the field testing has been performed in determining the NMOC emission rate or radii of influence. If field testing has not been performed, the default value k, L_0, and C_{NMOC} provided in 40 CFR section 60.754(a)(1) or 60.754(a)(5) of the 40 CFR shall be used. The mass of nondegradable solid waste contained within the given section may be subtracted from the total mass of the section when estimating emissions provided that the nature, location, age, and amount of nondegradable material is documented as provided section 60.759(a)(3)(i) of the 40 CFR.

47. In accordance with section 60.759(b) of the 40 CFR, the owner or operator seeking to comply with section 60.752(b)(2)(i)(A) shall construct the gas collection devices using the following equipment or procedure:

a. The landfill gas extraction components shall be constructed of polyvinyl chloride (PVC), high-density polyethylene (HDPE) pipe, fiberglass, stainless steel, or other nonporous corrosion resistant material of suitable dimensions to convey projected amounts of gases; withstand installation, static and settlement force; and withstand planned overburden or traffic loads. The collection system shall extend as necessary to comply with emission and migration standards. Collection devices such as wells and horizontal collectors shall be perforated to allow gas entry without head loss sufficient to impair performance across the intended extent of control. Perforations shall be situated with regard to the need to prevent excessive air infiltration.

b. Vertical wells shall be placed so as not to endanger underlying liners and shall address the occurrence of water within the landfill. Holes and trenches constructed for piped wells and horizontal collectors shall be of sufficient cross-section so as to allow for their proper construction and completion including, for example, centering of pipes and placement of gravel backfill. Collection devices shall be designed so as not to allow indirect short circuiting of air into the cover or refuse into the collection system or gas into the air. Any gravel used around pipe perforations should be of a dimension so as not to penetrate or block perforations.

c. Collection devices may be connected to the collection header pipes below or above the landfill surface. The connector assembly shall include a positive closing throttle valve, any necessary seals and couplings, access couplings and at least one sampling port. The collection devices shall be constructed of PVC, HDPE, fiberglass, stainless steel, or other nonporous material of suitable thickness.

48. Pursuant to section 60.759(c) of the 40 CFR, the owner or operator shall convey the landfill gas to a control system in compliance with § 60.752(b)(2)(iii) through the collection header pipe(s). The gas mover equipment shall be sized to handle the maximum gas generation flow rate expected over the intended use period of the gas moving equipment using the following procedures:

a. For existing collection systems, the flow data shall be used to project the maximum flow rate. If no flow data exists, the procedures in section 60.759(c)(2) of the 40 CFR shall be used.

b. For new collection systems, the maximum flow rate shall be in accordance with section 60755(a)(1).

D. Conditions under subpart AAAA, Part 63 of Title 40 of the CFR – *National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Landfills*[35]*:*

1. The permittee shall comply with the applicable requirements of 40 CFR Part 63, Subpart AAAA, 40 CFR Part 63.1930 of the 40 CFR. The requirements of this subpart apply at all times, including during *startup, shutdown and malfunction* (SSM) periods, and the SSM requirements of the General Provisions of Part 63 shall not apply. [40 CFR §63.1930(b)]

2. The permittee shall comply with the *Startup, Shutdown* and *Malfunction* (SSM) requirements in 40 CFR 63 Subpart A, as specified in Table 1 of 40 CFR 63, Subpart AAAA, and the reporting requirements as specified in §63.1981(h) of the 40 CFR. [40 CFR §63.1955(a)]

3. For the approval of control and collection systems that include any alternatives to operational standards, test methods, procedures, compliance measures,

[35] This subpart was recently amended on March 26, 2020 [85 FR 17261], October 13, 2020 [85 FR 64400], and February 14, 2022 [87 FR 8203]. These conditions were updated for these amendments.

monitoring, recordkeeping. or reporting provisions, the facility shall follow the procedures, as provided in §63.1981(d)(2). [40 CFR §63.1955(a)]

4. In accordance with §63.1955(c) of 40 CFR, at all times, beginning no later than September 27, 2021, the owner or operator must operate and maintain any affected source, including associated air pollution control equipment and monitoring equipment, in a manner consistent with safety and good air pollution control practices for minimizing emissions.

5. The permittee shall comply with the requirements for installation, operation, and removal of the landfill gas collection and control system as provided in §§63.1957, 63.1958, 63.1960, and 63.1961 of 40 CFR.

6. The permittee shall calculate the NNOC emission rate using the procedures specified in 40 CFR §60.754(a), [40 CFR §63.1959] except:

    a. NMOC issuance rate. Beginning no later than September 27, 2021, the landfill owner or operator must calculate the NMOC emission rate using either Equation 1 provided in §63.1959(a)(1)(i), or Equation 2 provided in §63.1959(a)(1)(ii).

7. Compliance with 40 CFR Subpart AAAA is determined using performance testing, collection system monitoring, continuous parameter monitoring, and other credible evidence. In addition, continuous parameter monitoring data collected under §63.1961(b)(1), (c)(1), and (d) are used to demonstrate compliance with operational standards for control systems. If a deviation occurs, you have failed to meet the control device operating standards described in this subpart and have deviated from the requirements of this subpart. [40 CFR §63.1964]

    a. Before September 28, 2021, the permittee must develop a written Startup, shutdown and malfunction plan (SSM) according to the provisions in §63.6(e)(3) of Subpart A. A copy of the SSM plan must be maintained on site. Failure to write or maintain a copy of the SSM plan is a deviation from the requirements of this subpart. [40 CFR §63.1964(a)]

    b. After September 27, 2021, the SSM provisions of §63.6(e) of subpart A no longer apply to this subpart and the SSM plan developed under paragraph (a) of section 63.1940 no longer applies. Compliance with the emission standards and the operating standards of §63.1958 of subpart AAAA is required at all times.

c. A deviation occurs when the control device operating parameter boundaries described in §63.1983(c)(1) of Subpart AAAA of 40 CFR are exceeded. [40 CFR §63.1965(a)]

i. A deviation occurs when 1 hour or more of the hours during the 3-hour block averaging period does not constitute a valid hour of data. [40 CFR §63.1965(b)]

1) A valid hour of data must have measured values for at least three 15-minute monitoring periods within the hour.

ii. A deviation occurs when the SSM plan is not developed or maintained on site. [40 CFR §63.1965(c)]

8. The permittee shall maintain compliance with the recordkeeping and reporting requirements as described in 40 CFR section 63.1981.

a. You must submit the reports specified in section 63.1981 and the reports specified in Table 1 of subpart AAAA. If you have previously submitted a design capacity report, amended design capacity report, initial NMOC emission rate report, initial or revised collection and control system design plan, closure report, equipment removal report, or initial performance test under 40 CFR part 60, subpart WWW, so that filing constitutes compliance with the reports required in §63.1981. You do not need to re-submit the reports. However, you must include a statement certifying prior submissions of the respective report(s) and the date of submittal in the first semi-annual report required in section 63.1981.

b. You must keep records as specified in subpart AAAA of 40 CFR 63. You must also keep records as specified in the general provisions of 40 CFR part 63 as shown in Table 1, subpart AAAA of 40 CFR 63. [40 CFR §63.1983]

OTHER SPECIFIC CONDITIONS

E. CD-1 and CD-2 Enclosed Gas Flares

1. The permittee shall operate by burning a maximum of 3,800 cubic feet per minute in CD-1 and CD-2.

2. The permittee shall prepare and keep a monthly record containing the daily quantity (on a monthly rolling basis) of landfill gas collected directed to each of the CD-1 and CD-2 units.

3. The authorized auxiliary fuel for flares shall be propane gas whose maximum consumption shall not exceed 1,000 gallons per year for CD-1 and 100 gallons per year for CD-2 with a maximum sulfur content of 0.001 percent by weight.

4. **Visible Emissions Limit:**

   a. The permittee shall not exceed the 20% opacity limit, averaging over 6 minutes for enclosed flares CD-1 and CD-2. However, the permittee may emit visible emissions with an opacity up to 60% into the atmosphere for a period not to exceed four (4) minutes within any consecutive thirty (30) minute interval. [Rule 403(A) of the RCAP]

   b. The permittee shall contract with an independent opacity reader certified by an EPA or DNER approved or endorsed school to perform an opacity reading on each enclosed flare during the first year of the construction permit term using Method 9 described in Appendix A of 40 CFR Part 60. The applicable flare shall be in operation at the time of the opacity readings are taken.

      i. The permittee shall submit to the DNER at least 30 days prior to the initial opacity reading a copy of the format to be used to record the visible emissions readings.

      ii. Shall notify DNER in writing at least 15 days prior to conducting the initial sampling under Method 9 to allow the DNER the opportunity to have an observer present. [RCAP Rule 106(D)]

      iii. Submit two copies of the report of the results of the initial sampling under Method 9 within 60 days of completion of testing. This report shall contain the information required by RCAP Rule 106(E).

   c. The permittee shall perform visible emissions tests in accordance with the requirements listed below:

      i. Visible emissions readings shall be taken in accordance with Method 9 of 40 CFR Part 60, Appendix A, for a minimum of 6 minutes. Visible

emissions readers shall be certified in accordance with Method 9 by an EPA or DNER endorsed school

1) Conduct opacity readings monthly for a minimum of four consecutive months. If no emissions are observed in excess of RCAP Rule 403, then;

2) You may conduct opacity readings annually. If emissions are observed in excess of Rule 403 of the RCAP, in any of the annual readings, you shall reverse the frequency of monthly readings (as per subsection 1 above) until no exceedances of the limit established in Rule 403 are recorded for four consecutive months.

ii. All visible emission readings shall be recorded in accordance with Method 9. You shall prepare and maintain a record indicating the dates and results of the readings taken available at the facility at all times for review by DNER personnel.

iii. If on the day the reading is to be taken, the unit is not in operation or the conditions of Method 9 are not met, the permittee shall document this in the log of readings and report it in the visible emissions summary to be submitted to the DNER along with the semi-annual reports required in this permit.

iv. The permittee shall submit a summary of the visible emission readings along with the semi-annual reports required in this permit. This report shall include a summary of the results of the readings and the start and end times and dates the visible emission reading was taken. The report should also include the total number of emission readings taken in that period for the units subject to this requirement. The permittee shall retain a copy of the visible emissions reading report that includes the date and time of the reading for at least five years, in compliance with RCAP Rule 603(A)(4)(ii).

d. The DNER reserves the right to perform or require an opacity assessment under Method 9 to be performed at any time during the hours of the day when the equipment is operating for the purpose of demonstrating compliance with the opacity limit.

5. The CD-1 and CD-2 shall be installed, operated, and maintained in accordance with the manufacturer's specifications in a manner that will not affect the operational efficiency of the unit. The manufacturer's specifications shall be available at all times in the facility for review by DNER technical personnel.

6. Maintain a monthly record of the maintenance provided to the CD-1 and CD-2. This record shall be kept at the facility to be reviewed by DNER personnel or to be submitted to DNER when required.

7. A performance test shall be performed within 180 days after construction or installation of the CD-1 and CD-2 collection and control system and final compliance is achieved.[36].

8. In accordance with RCAP Rule 106(C), submit to the DNER 30 days prior to the start date of the performance test for CD-1 and CD-2, a detailed sampling protocol, sampling equipment, procedures, and quality assurance measures to be used. The protocol should be specific to the test, faculty, operational conditions and the parameters measured. The protocol should include, but not be limited to, the following[37].

    a. Diagram of the stack showing the portholes, the distance to the beginning and end of each obstruction, the diameter of the stack, and the planned location of the sampling and monitoring equipment.

    b. The presence and determination of cyclonic flow.

    c. The total test volume, number of cross-sectional points and sampling time for each point.

    d. Detailed description of all sampling, sample receipt and analytical procedures. In case of modifications or non-standard procedures, justification and necessary data supporting the entire procedure should be included. Reference method choices should be selected and supported.

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[36] **ECL** submitted evidence that efficiency test was performed for both flares; for the CD-1 flare on November 14, 2006, and on November 17, 2006, at the EPA. For the CD-2 flare, the report was submitted on January 15, 2014. R-16-22, 8 JUL 2022 - Adjudicative Procedure Resolution, PFE-TV-4953-36-1001-2294.

[37] **ECL** presented evidence that efficiency testing was performed for both flares; for the CD-1 flare on November 14, 2006, and on November 17, 2006, at the EPA. For the CD-2 flare, the report was submitted on January 15, 2014. R-16-22, 8 JUL 2022 - Adjudicative Procedure Resolution, PFE-TV-4953-36-1001-2294.

e. Any special conditions for preparing sampling equipment and packaging that emit sample contamination.

f. Copy of the forms to be used to record the sampling history. The sampling conditions and the operational conditions of the equipment.

g. Methodology for measuring equipment operating conditions, including production rate, fuel flow rate, process data and control equipment data, and which must be recorded at a minimum rate at 15-minute intervals.

h. If more than one sampling train is used, the sequence and related logistics should be described.

i. If Continuous Emission Monitors (CEMs) are used, the procedures for collecting the operation and data should be described.

9. In accordance with RCAP Rule 106(D), you shall notify DNER in writing of the start date of the performance test 15 days in advance to allow DNER the opportunity to have an observer present. The results of a test whose Work Plan has not been previously approved will not be accepted[38].

10. Submit to the DNER within the first 60 days after completion of the performance test two copies of the emissions sampling report. This report shall comply with the provisions of Rule 106(E) of the RCAP. The sampling report shall include, but not be limited to, the following:[39]

a. A summary of the emission ratios, isokinetic sampling ratio, operational level, and any other relevant processes, fuel, or control equipment parameters monitored during the test.

b. Any field data collected, including legible copies of field sheets (with raw data) and any relevant computer data transcripts.

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[38] **ECL** presented evidence that efficiency testing was performed for both flares; for the CD-1 flare on November 14, 2006, and on November 17, 2006, at the EPA. For the CD-2 flare, the report was submitted on January 15, 2014. R-16-22, 8 JUL 2022 - Adjudicative Procedure Resolution, PFE-TV-4953-36-1001-2294.

[39] **ECL** presented evidence that efficiency testing was performed for both flares; for the CD-1 flare on November 14, 2006, and on November 17, 2006, at the EPA. For the CD-2 flare, the report was submitted on January 15, 2014. R-16-22, 8 JUL 2022 - Adjudicative Procedure Resolution, PFE-TV-4953-36-1001-2294.

c. All laboratory data, including control samples (blanks), weighing, calibration data, quality control samples and test results.

d. All computations performed for determination of emission ratio, process ratio and any other data relevant to test results, compliance, etc.

11. In accordance with Rule 106(F) of the RCAP, during the compliance test, the emission source shall operate at full capacity or based on representative operation of the affected facility at the time of sampling; it being understood that after demonstrating compliance with any applicable emission limit, the DNER may restrict the operation of the source to the capacity achieved during the performance tests.

12. If condensate evaporation occurs in the vertical wells, calculate the fugitive emissions of Hazardous Air Pollutants as defined in the RCAP.

13. The permittee shall send a monthly report to DNER regarding the CD-1 and CD-2 flares indicating:

    a. Monthly propane fuel consumption. This may be determined by assuming that all propane purchased has been consumed. You should retain propane purchase receipts at the facility to demonstrate the quantities purchased;

    b. The daily sulfur content of propane fuel used in flares in weight percent as certified by the fuel distributor or importer of the fuel. Every six months, you must obtain and submit an updated copy of the certification from the supplier, distributor or importer of the fuel. These reports must be sent to the email reporteconsumo@drna.pr.gov. In the event of any change in the reporting method, it will be announced at the following address: www.drna.pr.gov/acai. The report must include the signed report, as well as the fuel use information. This report must be submitted no later than 15 days of the following month for which the report is representative.

14. **The Coquí Landfill** shall retain the records of all required sampling data and supporting information for a period of 5 years from the date of sampling, measurement, report, or sampling application. Supporting information shall include all calibration and maintenance records and all graphs produced by continuous monitoring instrumentation and copies of all reports required by the permit.

15. The permittee shall comply with the established Monitoring, Recordkeeping, and Reporting requirements as required in Table 1 of this permit.

Table 1 – Monitoring, Record Keeping, and Reporting	
Continuous Monitoring	The flares shall have a continuous measurement of gas flow to the control equipment and temperature.
Monthly Monitoring	The permittee shall: Measure the gauge pressure in the gas collection header. Measure the nitrogen or oxygen content of the landfill gas, and Measure the landfill gas temperature.
Quarterly Monitoring	Surface methane concentrations using EPA Method 21.
Recordkeeping	The permittee shall have at the facility readily accessible: Maximum design capacity records. The amount of waste in place. Performance/compliance testing. Equipment operating/exceedance parameters. The waste acceptance rate from year to year, for a period of at least 5 years. Records of the equipment manufacturer's specifications shall be maintained until the Gas Control System is removed. A field map showing all existing and planned collection wells shall be maintained for the life of the Gas Control System. The date and location of any newly installed wells. Documentation shall be maintained regarding the nature, quantity, location, and disposal date of any non-degradable waste excluded from the Gas Control System.

Table 1 – Monitoring, Record Keeping, and Reporting	
Reports	Reports must be submitted to EPA with a copy to DNER. An annual report shall contain all information recorded pursuant to 40 CFR §60.757(f)(1) through (f)(6).
	When performance testing is required, it shall be submitted with the annual report which shall contain the information listed in 40 CFR §60.757(g)(1) through (g)(6).
	An equipment removal report must be submitted to EPA 30 days prior to the removal or cessation of any control equipment and contain the information listed in 40 CFR §60.757(e)(1)(i) through (e)(1)(iii).

F. Landfill Gas Treatment System[40]

1. A maximum of 3,800 scfm of the collected landfill gas (LFG) may be directed to a duly authorized energy recovery facility for subsequent sale or use as energy, provided that the collected gas is first processed by the primary treatment system. The landfill gas shall be filtered with a 10-micron grid, dewatered in a dewatering system or through a chiller, and compressed by a blower or similar device, prior to use as energy.

2. All emissions from any atmospheric vent from the primary gas treatment system shall be subject to the requirements of paragraph (b)(2)(iii)(A) or (B) of 40 CFR §60.752. [40 CFR §60.752(b)(2)(iii)(C)]

3. The permittee shall direct emissions from any atmospheric vent from the gas treatment system to the CD-1 and/or CD-2 flare, designed and operated to reduce the NMOC concentration by 98% or the NMOC concentration in the exhaust gases to less than 20 parts per million by volume measured as hexane, on a dry basis at 3% oxygen. The reduction efficiency or parts per million by volume shall be established by an initial performance according to the test methods set forth in 40 CFR §60.754. [40 CFR §60.752(b)(2)(iii)(B)]

4. The permittee shall install, maintain, and operate the gas treatment system in accordance with the manufacturer's specifications and install, operate, and maintain:

[40] PFE-RH-36-0304-0007-I-II-III-C, 30 JUL 2021.

a. An automatic failure safety valve in the gas treatment system. The valve shall stop the flow of gas in the event of a system failure.

b. An instrument to continuously measure the gas flow rate which shall be directed to permitted energy recovery facility for use as energy. The permittee or operator shall secure the bypass line valve in the closed position with a seal or key-and-padlock type configuration. A visual inspection of the locking mechanism or seal shall be performed at least once a month to ensure that the valve remains in a closed position and that the flow of gases is not diverted through the bypass line.

c. A meter that measures the drop across the filtration system.

d. A device that measures the difference in temperature across the gas dehydration process.

e. A continuous LFG condensate flow meter.

5. The primary gas treatment system shall operate at all times, except for startup, shutdown or malfunction periods not to exceed one hour. [40 CFR §60.753(f); §60.755(e)]

6. The permittee shall operate the primary landfill gas treatment system so that there is no leakage of gas exceeding 500 ppmv, measured as methane, in any component under positive pressure.

7. Gas-containing components under positive pressure shall be monitored quarterly for leaks using a portable analyzer meeting the requirements of condition **F.8**. Any component leaks shall be tagged and repaired within 10 calendar days.

8. The portable analyzer used for positive pressure calibration monitoring shall comply with the following:

a. Calibration Method: The portable analyzer shall comply with the calibration, performance, and instrument specifications provided in EPA Method 21, except that methane shall replace all VOC references.

b. Calibration gas: The calibration gas shall be methane.

9. Recordkeeping: The permittee shall maintain the following records for the gas treatment system equipment and shall make them available to the DNER technical staff, upon request:

    a. Positive Pressure Components: Results of quarterly inspections of gas-containing components subjected to positive pressure. The permittee shall record the dates of the inspections, the concentration of any components exceeding the allowable limit, description of corrective actions taken, and dates of corrective actions.

    b. Calibration and maintenance: Calibration and maintenance records of the portable analyzer, including the results of each calibration.

        i. The permittee shall maintain a daily record of the readings of the instrument to measure the gas flow ratio, which shall be available at the facility for review by DNER technical personnel.

    c. They shall be calibrated every six months or according to the manufacturer's specifications so that they operate efficiently. The calibration methodologies shall be kept on record for a period of 5 years and shall be accessible at all times to the DNER personnel upon request.

    d. The permittee shall keep a monthly report recording the volume or flow of landfill gas through the treatment system.

10. The permittee shall keep an annual compliance report which shall contain the monthly volume of gas treated by the primary treatment system and transferred to a duly authorized energy recovery facility. Such a report shall be submitted with the annual emissions report required by this Title V operating permit.

11. No later than 5 days after the transfer of gas to a duly authorized energy recovery facility, notify the DNER in writing of the initial start date of the diversion of landfill gas for use as energy.

G. Internal Combustion Engines of Electricity Generators

1. Each engine included in Section II of this permit shall be provided with a non-resettable hour meter so that the hours of operation can be verified, and fuel consumption can be calculated.

2. The permittee shall maintain a monthly record indicating the hours of operation, fuel consumption, and sulfur content of the fuel in percentage by weight, for each engine. The hours recorded on the hour meter shall be used to calculate cumulative fuel consumption on a monthly basis. The fuel consumption calculation for any period of 12 consecutive months shall be calculated by adding each month's consumption to the previous 11 months' consumption. The same shall be available at all times in the facility to be reviewed by the DNER technical personnel.

    a. Shall maintain a record of the operating hours of each engine as recorded in the non-resettable hour meter.

    b. Shall document the hours used for emergency operations, including what qualified the operation as emergency and number of hours that each engine was operated in non-emergency situations.

3. The permittee shall submit to the DNER an annual report indicating the monthly fuel consumption and the sulfur content of the fuel in percent by weight for each engine authorized under a permit at the facility. Said report shall be sent to the following email address: reporteconsumo@drna.pr.gov. In case there is any change in the reporting method, it will be announced at the following address: www.drna.pr.gov/acai. The report shall include the signed report as well as the consumption information. The report must be submitted no later than 30 days from the following year, for which the report is representative. Fuel consumption reports must include a signed certification by the owner or operator of the facility that the sulfur content certifications are representative of all fuel burned during the reporting period. You must keep a copy of these reports at all times at the facility to be reviewed by DNER technical staff.

    a. You should keep a record of the certificates of analysis of the diesel fuel burned in the engines and the same shall be presented to our technical personnel when required.

4. The permittee shall retain a certificate from the supplier of the diesel fuel burned in each engine. The certification shall be obtained each time fuel is received at the facility. The certification shall include the following information:

    a. The name of the fuel supplier;

b. Diesel supplier's statement indicating that the diesel meets fuel specifications number 2, as defined by the American Society for Testing and Materials ASTM D-396, ASTM D975, or ASTM D3699, and

c. The method of analysis is used to determine the sulfur content of the fuel.

5. Fuel consumption reports shall include a signed certification by the owner or operator of the facility that the sulfur content certifications are representative of all fuel burned during the reporting period.

6. The permittee shall submit a modification to the construction permit in the event that it wishes to consume another type of fuel or fuel mixture at any of the sources in accordance with the requirements set forth in RCAP Rule 203.

7. The permittee shall maintain a copy at the facility of its determination of applicability or non-applicability and keep it updated in accordance with the applicable regulations in 40 CFR Part 60 Subpart IIII and 40 CFR Part 63 Subpart ZZZZ for all internal combustion engines at its facility. The permittee shall maintain documents that specifically and clearly state the applicable requirements for internal combustion engines. The documents shall be available for review and inspection by DNER or the EPA.

Conditions under 40 CFR Subpart IIII, Part 60 – ***Standards of Performance for Stationary Compression Ignition Internal Combustion Engines***

8. The maximum hours of operation of the engines of the electricity generators shall be **500 hours per year** each.

a. In order for the engine to be considered an emergency engine as specified in 40 CFR Part 60 Subpart IIII, any operation other than emergency operation, maintenance and sampling, and operations in non-emergency situations for 50 hours per year, as described in paragraphs (f)(1) through (3) of 40 CFR §60.4211, is prohibited. For any engine operation that does not meet such requirements, the engine will not be considered an emergency engine under this subpart and will have to comply with all non-emergency engine requirements.[41]

[41] Subpart IIII of the 40 CFR 60, was revised on Aug 10, 2022; 87 FR 48605. – EPA revised the ICE NSPS and RICE NESHAP to reflect a 2015 court decision and conform to the court's decision, which struck down provisions in the

9. Engines are subject to 40 CFR Part 63 Subpart ZZZZ (National Emission Standards for Hazardous Air Pollutants Reciprocating Internal Combustion Engines). In accordance with 40 CFR section 63.6590(c), each engine shall comply with the requirements of Subpart ZZZZ by complying with the applicable requirements of 40 CFR, Part 60 Subpart IIII (New Source Performance Standards for Stationary Compression Ignition Internal Combustion Engines) and no additional requirements shall apply to such engine under Subpart ZZZZ. The permittee shall comply with all applicable requirements under said Subpart IIII.

   a. In accordance with 40 CFR section 60.4205(b), each engine shall meet the applicable emission standards of section 60.4202, for all pollutants, for the same model year and maximum engine power. In accordance with parts 1039, appendix I and 1039.105 of 40 CFR, engines may not exceed the following emissions[42]:

Engine	NMHC + NOx (g/kW-hr)	CO (g/kW-hr)	PM (g/kW-hr)	Opacity[43]
GEN-1	4.0	3.5	0.20	X
GEN-2	4.7	5.0	0.40	X
GEN-3	7.5	5.5	0.60	X
GEN-4	4.7	5.0	0.40	X
GEN-5	7.5	6.6	0.80	X
GEN-6	4.0	3.5	0.20	X

   b. You shall obtain from the manufacturer a certification for each engine indicating that it meets the emission standards specified in subsection a. of this condition. [40 CFR 60.4202]

   c. The permittee should operate and maintain each engine so that it achieves the emission standards as required in subsection **a.** of this condition over the entire life of each engine. [40 CFR section 60.4206]

regulations that specified that emergency engines could operate to respond to emergency demand or during periods when there was a voltage or frequency deviation from the standards for non-emergency engines.

[42] The standard was revised on 29 Jun 2021, 86 FR 34358.

[43] According to the limits set forth in 40 CFR §1039.105. The standard was revised on June 29, 2021.

d. In accordance with 40 CFR section 60.4207(b), the permittee shall use diesel fuel in each engine that meets the requirements of 40 CFR 1090.305[44]. This is:

   i. The maximum sulfur content in the fuel shall not exceed 15 ppm.

   ii. The fuel must comply with a minimum cetane index of 40 or a maximum aromatic content of 35 volume percent.

e. The permittee shall comply with the installation, operation, and maintenance requirements of section 60.4208(a), (b), (h), (i) of the 40 CFR.

f. The permittee shall comply with the monitoring requirements of 40 CFR section 60.4209 (a) or (b), as applicable.

g. The permittee shall demonstrate compliance by purchasing an engine certified to the emission standards in section 60.4205(b) of 40 CFR and subsection **a.** of this condition for the same model year and maximum engine power. The engine must be installed and configured according to the manufacturer's emission-related specifications, except as permitted in paragraph (g) of section 60.4211. [40 CFR section 60.4211(c)]

h. The permittee shall comply with the compliance requirements of 40 CFR sections 60.4206 and 60.4211(a), (c), (f), (g), as applicable.

i. The permittee shall comply with the test methods and other procedures in 40 CFR section 60.4212, as applicable.

j. The permittee shall comply with the applicable notification, reporting, and recordkeeping requirements of 40 CFR section 60.4214(b) or (c), as applicable.

k. The permittee shall comply with the General Provisions of sections 60.1 through section 60.19 that apply to it, which are included in Table 8 of Subpart IIII of 40 CFR.

[44] Standard revised on June 28, 2011.

Section VI – Insignificant Emission Units

The following activities will be considered insignificant as long as **ECL** meets the descriptions indicated in the table below and is not subject to an applicable requirement.

Identification of the Source of Emission	Units	Description (Basis of Exemption)
24,000-gallon diesel fuel storage tank.	1	Rule 206(F)(3) of the RCAP.
Oil tanks with a capacity of 550 gallons.	2	Appendix B.3.ii(N) of the RCAP
550-gallon engine and hydraulic oil storage tanks.	2	Appendix B.3.ii(N) of the RCAP
300-gallon engine and hydraulic oil storage tank.	1	Appendix B.3.ii(N) of the RCAP
20-gallon parts cleaning containers.	2	Appendix B.3.xxxviii to the RCAP
500-gallon diesel fuel storage tank.	3	Appendix B.3.ii(N) of the RCAP
100-gallon diesel fuel storage tank.	1	Appendix B.3.ii(N) of the RCAP
750-gallon diesel fuel storage tank.	1	Appendix B.3.ii(N) of the RCAP
TW-1 – 30 hp mobile pressure machine.	1	Appendix B.3.vi of the RCAP
COAT-1	1	Appendix B(3)(ii)(P)

Section VII – Permit Protection

A. In accordance with RCAP Rule 603(D), compliance with the permit conditions shall be deemed to compliance with any applicable requirement as of the date of issuance of the permit, provided that such requirement is specifically identified in the permit.

(1) Not Applicable Requirements

Non-Applicable Requirements	Regulation	Reason for non-applicability
Emission Guidelines for Municipal Sanitary Landfill System Emissions.	Part VII of the Regulations for the Control of Atmospheric Pollution.	It is a modified facility. It is subject by 40 CFR Part 60 Subpart WWW.
Standards of Performance for municipal solid waste landfills that commenced construction, reconstruction, or modification after July 17, 2014.	40 CFR Part 60 Subpart XXX.	Physical or operational changes made to a municipal solid waste landfill solely to comply with subparts Cc, Cf, or WWW of Part 60 of 40 CFR are not considered construction, reconstruction, or modification for purposes of this section. This facility is subject to 40 CFR Part 60 Subpart WWW.
National Emissions Standards for Asbestos.	40 CFR Part 61 Subpart M.	This facility is not authorized to receive asbestos-containing material.

Section VIII – Permit Approval

By virtue of the authority conferred on the Department of Natural and Environmental Resources by the Environmental Public Policy Act, Act Number 416 of September 22, 2004, as amended, and after verifying the administrative record and compliance with the Uniform Administrative Procedure Act, Act Number 38 of June 30, 2017, as amended, the Federal Clean Air Act, the Environmental Public Policy Act, and the Puerto Rico Regulations for the Control of Atmospheric Pollution , the Department of Natural and Environmental Resources approves the permit subject to the terms and conditions therein established.

In San Juan, Puerto Rico, today _____[Date]_____ _____, 2025.

DEPARTMENT OF NATURAL AND ENVIRONMENTAL RESOURCES

[Signature]
_____
Waldemar Quiles Pérez
Secretary

APPENDIX

Appendix I – Definitions and Abbreviations

A. Definitions:

1. Act – Federal Clean Air Act, as amended, *42 U.S. 7401, et seq.*

2. Responsible Officer – See definition of Responsible Officer as set forth in the Air Pollution Control Regulations of the former Environmental Quality Board (1995), now the Department of Natural and Environmental Resources.

3. Regulations – Regulations for the Control of Air Pollution of the former Environmental Quality Board, now the Department of Natural and Environmental Resources.

4. Title V – Title V of the Federal Clean Air Act (*42 U.S.C 7661*)

B. Acronyms

AP-42	Compilation of Air Pollutant Emission Factors
Btu	British Thermal Unit
C_{NMOC}	Concentration of Non-Methane Organic Compounds (NMOCs)
CH4	Methane
CO	Carbon Monoxide
CO_2	Carbon Dioxide
CO_2e	Carbon Dioxide Equivalent
CF	Code of Federal Regulations
DNER	Department of Natural and Environmental Resources
ECL	The Coquí Landfill
EPA	Environmental Protection Agency
GHG	Greenhouse Gases
HAP	Hazardous Air Pollutants
HP	Horsepower
hr	Hours
EQB	Puerto Rico Environmental Quality Board (former)
k	Methane Generation Ratio Constant

Mg	Megagrams
MM	Million
NESHAP	National Emission Standards for Hazardous Air Pollutants
NNCAA	National Ambient Air Quality Standards (NAAQS)
NSPS	New Source Performance Standards
NOx	Nitrogen oxides
NMHC	non-methane hydrocarbons
NMOC	Non-Methane Organic Compounds
Pb	Lead
PM	Particulate matter
PM_{10}	Particulate matter with a particle whose diameter has an aerobic mass size equal to or less than ten (10) microns
PSD	Preventing Significant Impairment
RCAP	Regulations for the Control of Atmospheric Pollution
RMP	Risk Management Plan
SIC	Standard Industry Classification (*Industry Standard Classification*)
Scfm	cubic feet per minute at standard conditions
SOx	Sulphur oxides
SO_2	Sulphur dioxide
SRS	Landfill System
VOC	Volatile Organic Compounds