COMMONWEALTH OF
PUERTO RICO
Environmental Quality Board

TITLE V OPERATING PERMIT
AIR QUALITY AREA
ENVIRONMENTAL QUALITY BOARD

Permit Number:	PFE-TV-4953-32-1101-2391
Application Receipt Date:	September 15, 2007
Effective or Issue Date:	June 27, 2016
Expiration Date:	June 27, 2021

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

MUNICIPALITY OF GUAYNABO LANDFILL
GUAYNABO, PUERTO RICO

hereinafter **VMG** or the **permittee,** to operate a stationary source of air pollutants emissions consisting of the units described in this permit. Until such time as this permit expires, is modified or revoked, the permittee is allowed to discharge atmospheric pollutants from those processes and activities directly related and associated with the sources of emission, in compliance with the requirements, limitations and conditions of this permit, until its expiration date or until such is modified or revoked.

The conditions of the permit are 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 shall be kept on-site at the above-mentioned facility at all times.

Cruz A. Matos Environmental Building
Urb. San José Industrial Park, 1375 Ave. Ponce de León, San Juan, PR 00926-2604
P.O. Box 11488, San Juan, PR 00910
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Section I - General Information

A. Facility Information

Company Name:	Municipality of Guaynabo
Postal Address	GPO Box 7885
City:	Guaynabo
State:	Puerto Rico
Zip Code:	00970
Facility Name:	Municipality of Guaynabo Landfill
Facility Location:	PR-834, Km 0.58 Guaynabo, Puerto Rico
Responsible Officer:	Héctor O'Neill García Mayor Municipality of Guaynabo
Phone:	787-272-8607
Fax:	787-720-0850
Technical Contact:	Rey O. Contreras President
Landfill Technologies, Corp.	
Phone:	787-273-7639
Fax:	787-273-9315
SIC Primary Code:	4953

B. Process Description

The Municipality of Guaynabo Landfill (**VMG**) is a closed municipal solid waste landfill that accepted municipal solid waste since 1973 and stopped receiving waste on May 5, 2008. The total of deposited waste was 2.815 million megagrams with NMOC emissions of 12.55 megagrams per year. The **VMG** is located on Road

PR-834 Km 0.58 in Guaynabo, Puerto Rico. Landfill Technologies, Corp. administers the Municipal Sanitary Landfill System of Guaynabo.

When the landfill received the garbage, the solid waste was dumped from the transportation vehicle, spread and compacted by a garbage compactor. The closure and the post-closure care include the landfill cap and long-term care provisions of the closed landfill. Closing a municipal sanitary landfill system, requires the landfill cap system to be made of an infiltration layer and coated by an erosion layer.

The decomposition of the encapsulated waste in the solid waste municipal landfill produces gases (greenhouse gases), such as methane (CH_4), carbon dioxide (CO_2) and other non- methane organic compounds (NMOC).

The vehicles and equipment operating in the landfill will be only the following: trucks and equipment (e.g. lawn mower) used by the maintenance personnel, and equipment to maintain the landfill closure and the movement of vehicles to weight, inspect and transport the waste to the Transshipment Station located in the **VMG** facilities for later transfer to another sanitary landfill system.

The **Municipality of Guaynabo Landfill** is subject to the Title V permit requirements for being a major source of air pollutants since its Design Capacity is greater than 2.5 million megagrams and 2.5 million cubic meters. The landfill is a minor source of criteria pollutants, hazardous air pollutants and greenhouse gases (GHGs) expressed as CO_2e.

Section II - Emission Units Description

The emission units regulated by this permit are the following:

Emission Unit	Description	Control Equipment
EU-1	**Closed Municipal Sanitary Landfill System** The landfill accepted municipal solid waste since 1973 and closed in 2008. The total of deposited waste was 2.815 million megagrams (3,096,314 tons of waste) during its active period. The NMOC emission rate is 12.55 Mg/year (13.83 tons/year) as determined through the *Tier 2*.	None

Emission Unit	Description	Control Equipment
EU-2	**Emergency Electric Generator** Includes a compression ignition internal combustion engine with a capacity of 122 hp. Consumes diesel at a rate of 5.79 gallons per hour. Olympian brand, model LL3014B.	None
EU-3	**Fire pump** Includes a compression ignition internal combustion engine with a capacity of 140 hp. Consumes diesel at a rate of 7.4 gallons per hour. A-C brand, model 8100.	None
EU-4	**Fire pump** Includes a compression ignition internal combustion engine with a capacity of 85 hp. Consumes diesel at a rate of 2.7 gallons per hour.	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 to 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).

2. **Right of Entry**: As specified under Rules 103 and 603(c)(2) of the RCAP, **VMG** shall allow the Board 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 premises where an emission source is located or where emissions related activities are conducted, or where records must be kept under the conditions of this 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 facility, equipment (including monitoring and air pollution control equipment), practices or operations (including QA/QC methods) regulated or required under this permit; as well as sampling emissions of air quality and fuels; 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., semiannual monitoring reports and annual compliance certification) should be submitted together with a sworn statement or affidavit by the Responsible Official or a duly authorized representative. Such sworn statement or affidavit shall attest to the truth, correctness and completeness of such records and reports.

4. **Data Availability:** As specified under Rule 104 of the RCAP, all emission data obtained by or submitted to the EQB, 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 may also be made available to the public in any additional manner that the EQB may deem appropriate.

5. **Emergency Plan:** As specified under Rule 107 of the RCAP, **VMG** shall have available an Emergency Plan which must be consistent with adequate safety practices, and provides for the reduction or retention of the emissions from the plant during periods classified by the EQB as air pollution alerts, warnings or emergencies. These plans shall identify the emission sources, include the reduction to be accomplished for each source, and the means by which such reduction will be accomplished. These plans will be available for any authorized representative of the EQB at any time.

6. **Air Pollution Control Equipment: VMG** 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 according to those conditions imposed by this Title V permit, within the specified operating limitations of the manufacturer.

b. The collected material from air pollution control equipment shall be disposed in accordance with applicable rules and regulations. The removal, manipulation, transportation, storage, treatment or disposal will be done in

such or manner that shall not to 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 the planned shutdown. Such prior notice shall include, but is not limited to the following:

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

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

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

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

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

7. **Compliance Certification:** As specified under Rule 602(c)(2)(ix)(C) of the RCAP, **VMG** shall submit each year a compliance certification. This certification must be submitted to both the EQB and the Environmental Protection Agency (EPA)[1] no later than April 1st of each year, covering the previous calendar year. The

[1] The certification to the EQB shall be mailed to: Manager, Air Quality Area, P.O. Box 11488, San Juan, P.R. 00910. The certification to the EPA shall 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.

compliance certification shall include, but is not limited to, the information required under Rule 603(c) of the RCAP as follows:

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

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

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

d. The methods or other means used for determining the compliance status with each term and condition, currently and over the reporting period consistent with sections (a)(3)-(5) of Rule 603 of the RCAP; and

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

f. Such other facts as the Board may require to determine the compliance status of a source.

8. **Regulation Compliance:** As specified under Rule 115 of the RCAP, any violation to the 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 Board.

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 under Rule 420 of the RCAP, **VMG** shall not cause or permit emissions to 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 detectable beyond the property perimeter, and complaints are received, **VMG** shall investigate and take measures to minimize and/or eliminate the objectionable odors, if necessary. [This condition is enforceable only by the State]

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

12. **Permit Duration:** As specified under 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 5 years since the effective date. The expiration date will be automatically extended until the Board 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 under Rule 605 (c)(4)(i) of the RCAP, the 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 the 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, **VMG** shall retain records of all required monitoring data and support information for a period of 5 years from the date of the monitoring sample, measurement, report, or application.

14. **Semiannual Monitoring Reports/Samplings[2]:** As established under Rule 603(a)(5)(i) of the RCAP, **VMG** shall submit reports to the EQB of all required monitoring every 6 months, or more frequently if required by the Board or any other underlying applicable requirement. 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 the Board, the permittee must use them to complete these reports.

[2] 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.

15. **Deviations Reporting 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, if **VMG** wishes to assert the affirmative defense authorized under Rule 603 (e) of the RCAP. If **VMG** raises the emergency defense upon an enforcement action, the permittee shall demonstrate that such deviation happens due to an emergency and that the Board was adequately notified. If such emergency deviation last for more than 24 hours, the affected units may be operated until the end of the cycle or 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 to the Board's satisfaction that the National Air Quality Standards have not been exceeded and that there is no risk to the public health.

16. **Deviation Reporting (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 (state-only enforceable condition). 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. **VMG** 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 enforcement action, impose sanctions, revoke, terminate, modify, and/or reissue the permit, or to deny a permit renewal application.

19. **Defense not Allowed:** As specified under Rule 603(a)(7)(ii) of the RCAP, **VMG** 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 this 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 **VMG** for a permit modification, revocation and reissuance, or termination, or of a notification of planned changes or anticipated noncompliance does not stay any permit condition.

21. **Property Rights:** As specified under Rule 603(a)(7)(iv) of the RCAP, this permit does not convey any property rights of any sort, nor does it grant any exclusive privilege.

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

23. **Changes in Operating Scenarios:** As specified in Rule 603(a)(10) of the RCAP, **VMG** 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 as a result of the EQB's failure to take final action on a permit application within 18 months. The EQB'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 the RCAP, the permit shall not be amended nor modified unless **VMG** 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 **VMG**, when the remaining permit term is of 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 EQB or the EPA determines that the permit contains a material mistake or that inaccurate statements were made in establishing the emission standards or other terms or conditions of the permit.

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

27. **Changes in Name or Responsible Official:** This permit is issued to **Municipality of Guaynabo Landfill.** In the event that the company and/or facility change 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 a sworn statement in which he/she accepts and promises to comply with all the conditions of this permit.

28. **Changes in Ownership**: This permit is issued to **Municipality of Guaynabo Landfill.** In the event that the company and/or facility is transferred to a different owner or change operational control and the Board 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 promises 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 Board determines that changes to the permit are necessary.

29. **Renovation Work/ Demolition: VMG** shall comply with the provisions set forth in 40 CFR §61.145 and §61.150, and Rule 422 of the RCAP, and Regulations for the Processing of General Permits (General Permit for the Handling of Asbestos Containing Materials) when doing renovation or demolition activities of asbestos containing materials at the facility. **VMG** is not authorized to receive asbestos containing materials in the sanitary landfill system.

30. **Risk Management Plan:** If during the effectiveness of this permit, **VMG** is subject to the 40 CFR part 68, the permittee shall submit a Risk Management Plan according with the compliance schedule in the 40 CFR part 68.10. If during the effectiveness of this permit, **VMG** 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: VMG** 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, **VMG** 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 **VMG** 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 as used in subpart B does not include a vehicle in which 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**: **VMG** shall comply with the standards for labeling of products using ozone-depleting substances pursuant to 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 directly manufactured with a class I substance must bear the required warning statement if it is being introduced into interstate commerce pursuant to 40 CFR §82.106.

    b. The placement of the required warning statement must comply with the requirements pursuant to 40 CFR §82.108.

    c. The form of the label bearing the required warning statement must comply with the requirements pursuant to 40 CFR §82.110.

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

34. **Roof Surface Coating:** Pursuant to Rule 424 of the RCAP, **VMG** 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. [State enforceable only]

35. **Storage Tanks: VMG** shall keep records of all fuel oil storage tanks showing the dimensions of each tank and an analysis showing the capacity of each tank pursuant to the 40 CFR §60.116b. This documentation shall be readily available at any time for inspection of the Board personnel and shall be kept onsite for the life of the tank.

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

37. **Emissions Calculations**: **VMG** 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 Board 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, **VMG** 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 or Amended Regulation:** 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 Board will provide a specified and reasonable period of time so **VMG** reach compliance with the amendments or new regulations.

40. **Reports:** Unless a permit condition establishes otherwise, any requirement of information submittal to the Board shall be addressed to: Manager, Air Quality Area, PO Box 11488, San Juan, P.R. 00910.

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

a. Nothing herein shall prevent Board or the EPA from taking administrative enforcement measures or seeking legal or equitable relief to enforce the terms of the Title V permits, including but not limited to the right to seek injunctive relief, and imposition of statutory penalties and/or fines.

b. Nothing herein shall be construed to limit the rights of the Board or the EPA to undertake any criminal enforcement activity against the permittee or any person.

c. Nothing herein shall be construed to limit the authority the Board or the EPA to undertake any actions in response to conditions that present an imminent and substantial endangerment to public health or welfare, or the environment

d. Nothing herein shall be construed to limit the permittee's rights to administrative hearing and judicial appeal of termination/ revocation/ disputes over modification/ denial actions in accordance with regulations and the Environmental Public Policy Act.

Section IV- Allowable Emissions

A. The emissions described on the following table represent the facility allowable, emissions of the facility and will be used only for payment purposes.

Pollutants	Allowable Emissions (tons/year)
PM_{10}	28.35
SO_2	0.03
NO_X	0.40
CO	1.95
NMOC	13.83
VOC (combustion)	0.04
HAP's	5.57
CO_2e	89,726

B. According to EQB Resolution RI-06-02[3], emission calculations shall be based on the actual emissions of **VMG**, although calculations based on the allowable emissions will be accepted. If **VMG** decides to perform calculations based on allowable emissions **VMG** shall pay the same charge per ton as the facilities that decide to do the calculations based on actual emissions.

C. According to Rule 610(a) of the RCAP, when **VMG** requests a modification, or administrative change or minor modification to its Title V permit, the source will only pay the charges associated with increases in emissions (if any) per ton, based on the change and not based on the total fees previously paid according to Rule 610(a) of the RCAP.

D. According to EQB Resolution R-04-04-1[4], to determine the modification and renewal charges, **VMG** shall calculate allowable emissions with factors K, Lo

[3] EQB Resolution - Payment Procedure for Title V operating charges and Title V permit renewal charges, issued on March 20, 2006.

[4] EQB Resolution - Consultation to the Government Board about the annual calculation of the gas emissions to the atmosphere for Sanitary Landfills, issued on February 27, 2004.

and C_{NMOC} under Rule 704(a) of the RCAP or specific values of k and C_{NMOC} as determined under Rule 704(c) and (d) of the RCAP.

E. According to EQB Resolution R-12-17-5[5], those sources that must include or estimate GHGs emission are exempt from payment for Greenhouse Gases (CO_2, N_2O, CH_4, CO_2e) in conformity with the *Tailoring Rule* for Title V permits until the Board issues a final determination stating the emissions charges or any other charges if needed or by repeal of this Resolution R-12-17-5, whichever comes first.

Section V - Specific Permit Conditions

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

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

   a. A fire abatement plan to control any open burning in the property or by the sanitary landfill boundaries.

   b. A fire abatement plan must have the concurrence of the State and Municipal Fire Department.

B. Unit EU-1

1. **VMG** shall not cause or discharge of visible emissions of fugitive dust beyond the boundary line of the property on which the emissions originated. [Rule 404 (B) of the RCAP]

2. **VMG** shall use dust suppression measures, as necessary, to comply with the limits specified under condition B.1.

3. **VMG** must register daily when using dust suppression equipment for processes, which are manually operated and intermittent. For example, the operation of water trucks to spray the roads. This log shall be kept accessible at all times at the facility for review by the technical staff of the EQB and EPA.

4. **VMG** shall maintain appropriate and functional equipment for dust suppression in the SLS at all times.

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[5] EQB Resolution, PR Tailoring Requirements for Greenhouse Gases (GHGs) – Payment exemption issued on September 7, 2012.

5. **VMG** must cover, at all times while in motion, open bodied trucks transporting materials likely to release airborne particulate powder. [Rule 404(A)(4) of the RCAP]

6. When reasonable, **VMG** shall pave the roads and keep them clean.[Rule 404(A)(6) of the RCAP]

7. **VMG** shall promptly remove dirt or other material that has accumulated on paved roads because of trucking or the use of soil moving equipment, pluvial erosion or other means. [Rule 404(A)(7) of the RCAP]

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

9. **VMG** shall retain all required logs and support information for a period of 5 years from the date of registration.

C. Compliance with the Emission Guidelines for Municipal Sanitary Landfill Systems (Part VII of the RCAP).[6]

For Unit EU-1:

1. **VMG** shall comply with dispositions in Part VII of the Regulation for the Control of Atmospheric Pollution.

2. **VMG** must comply with the following requirements:

   a. Submit an annual emissions report to the Board or an estimate of the NMOC emission rate for the next 5 years period in compliance with Rule 707(b)(1)(ii) of the RCAP; and

   [Rule 702(e)(1) of the RCAP]

   b. Include in the annual report required by Rule 707(b) of the RCAP, a recalculation of the NMOC emission rate annually using the procedures specified in Rule 704(a) of the RCAP until such time as the calculated NMOC emission rate is equal to or

[6] Note that the applicable state or federal requirement appears on the right margin immediately below the requirement.

greater than 50 megagrams per year, or the Sanitary Landfill System is closed:

i. If the NMOC emission rate is equal to or greater than 50 megagrams per year, the owner or operator shall within 30 months after the date when the SLS acquired an emission rate of 50 megagrams per year, install a collection and control system in compliance with Rule 702(f) of the RCAP that effectively captures the gas generated within the SLS. The submittal date of the annual report required in Rule 707(b)(1) of the RCAP will determine the date when the condition in Rule 702 (a) (3) is met.

ii. If the SLS is permanently closed, a Closure notification shall be submitted to the Board as provided under Rule 707(d) of the RCAP.

[Rule 702(e)(2) of the RCAP]

TEST METHODS AND PROCEDURES

3. According to Rule 603(a)(3)(iv) of the RCAP, EQB may, at its discretion, require **VMG** to conduct additional monitoring to ensure compliance with permit terms and conditions of the permit. If the EQB requires **VMG** to perform a performance test, the EQB will specify the methods and procedures to be followed.

4. PSD LEVELS COMPARISON (PREVENTION OF SIGNIFICANT DETERIORATION): **VMG** shall estimate the NMOC emission rate for comparison to the PSD major source and significance levels as established in 40 CFR Section 51.66 or 52.21 and in the Appendices of this Regulation, using EPA's Compilation of Air Pollutant Emission Factors (AP-42) or other EPA approved measurement procedures.

[Rule 704(g) of the RCAP]

DESIGN CAPACITY REPORT

5. **VMG** shall submit an amended design capacity report to the Board to notify any increase in the design capacity of the SLS, whether the increase[7] results from an increase in the permitted area or depth of the

[7] An increase in Design Capacity requires a modification of the construction permit under Rule 203 of the RCAP.

SLS, approved in this permit, a change in the operating procedures, or any other means which results in an increase in the maximum design capacity of the SLS above 2.5 million megagrams or 2.5 million cubic meters. The amended design capacity report shall be submitted within 90 days of the issuance of an amended construction or operation permit, or the placement of waste in additional land, or change in operational procedures which will result in an increase in maximum design capacity, whichever comes first.

[Rule 707(a)(3) of the RCAP]

a. The amended design capacity shall be calculated using good engineering practices. Calculations must be provided, along with parameters such as solid waste depth, solid waste acceptance rate and compaction practices, as part of the report. The EQB may require other reasonable information as necessary to verify the maximum Design Capacity of the SLS.

NMOC EMISSION RATE REPORT

6. **VMG** shall submit an NMOC emission rate report to the Board initially and **annually thereafter**, except as provided for in Rule 707(b)(1)(ii) or (b)(3) of the RCAP. The Board may request such additional information, as may be necessary to verify the reported NMOC emission rate.

[Rule 707(b) of the RCAP]

a. The NMOC emission rate shall contain an annual or 5-year estimate of the NMOC emission rate calculated using the formula and procedures provided in Rule 704(a) through (f) of the RCAP, as applicable.

[Rule 707(b)(1) of the RCAP]

i. If the estimated NMOC emission rate as reported in the annual report to the Board is less than 50 megagrams per year in each of the next 5 consecutive years, **VMG** may elect to submit an estimate of the NMOC emission rate for the next 5 years 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 Board. 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 years estimate shall be

submitted to the Board. The revised estimate shall cover the 5 years period beginning with the year in which the actual waste acceptance rate exceeded the estimated waste acceptance rate.

[Rule 707(b)(1)(ii) of the RCAP]

b. The NMOC emission rate report shall include all data, calculations, sample reports and measurements used to estimate the annual or 5 years emissions.

[Rule 707(b)(2) of the RCAP]

CLOSURE REPORT

7. **VMG** shall submit a closure report to the Board within 30 days of waste acceptance cessation. The Board may require additional information, as may be necessary, to verify that permanent closure has taken place in accordance with the requirements established in 40 CFR Section 258.60. If a closure report has been submitted to the Board, no additional waste may be placed into in the SLS without filing a notification of modification as described under the 40 CFR Section 60.7(a)(4).

[Rule 707(d) of the RCAP]

RECORDKEEPING

DESIGN CAPACITY RECORDS

8. **VMG** shall keep for at least 5 years up-to-date, readily accessible, on-site records of the maximum design capacity, the current amount of solid waste-in place, and the year-to-year waste acceptance rate. Off-site records may be maintained if they are retrievable within 4 hours. Either paper copies or electronic formats are acceptable.

[Rule 708(a) of the RCAP]

OTHER FILES/ RECORDS

NON-COMPLIANCE PENALTY

9. Failure to comply with any of the requirements established under Part VII of the RCAP constitutes a violation and the owner of a Municipal SLS will be subject to an administrative order to comply and/or liable to administrative penalties. The penalties will be imposed in accordance with the Commonwealth of Puerto Rico, Environmental Public Policy Act, Act No. 416 of September 22, 2004, as amended, and any regulation created under it.

[Rule 710 of the RCAP]

D. Units EU-2, EU-3 and EU-4: Internal combustion engines for emergencies

Condition	Parameter	Value	Units	Test Method	Method Frequency	Recordkeeping Requirements	Reports Frequency
Visible Emissions Limit	Visible Emissions	20	Percent	Method 9	Performance test during the first year of this permit	Test results	60 days after the test
Sulfur content	EU-2 EU-3 EU-4	0.2 0.2 0.0015	Percentage per weight	Fuel supplier certification	With each fuel receipt	Log with each receipt of the fuel sulfur content	Monthly
Hours of operation limit	Hours	100	Hours per year, each one	Operation	Daily	Log	Monthly

a. VISIBLE EMISSIONS LIMIT:

(i) The permittee shall not exceed the opacity limit of 20% in six (6) minutes average for the units. Nevertheless, the permittee may discharge into the atmosphere visible emissions of an opacity up to 60% for a period of no more than four (4) minutes in any consecutive thirty (30) minutes interval. [Rule 403(A) of the RCAP]

(ii) The permittee shall contract an independent opacity reader, certified in a school approved by the EPA or EQB, to perform one (1) opacity reading to each stack of each stack of each burner the first year of the permit using Method 9 established under 40 CFR part 60, Appendix A. The

applicable power generator shall be operating at the time of performance of the opacity readings.

(iii) The permittee shall submit to the Board, a copy of the format to be used to record the reading of visible emissions at least thirty (30) days prior to the reading of the initial opacity reading [Rule 106(C) of the RCAP]

(iv) The permittee shall notify in writing to the Board at least fifteen (15) days of prior of the initial test under Method 9, to allow the Board the opportunity to have an observer present. [Rule 106(D) of the RCAP]

(v) Two (2) copies of the report of the initial reading under Method 9 shall be submitted by the permittee within60 days after the tests. This report shall contain the information required in Rule 106(E) of the RCAP.

(vi) As specified in Rule 603(a)(4)(ii) of the RCAP, the permittee shall retain all records for the required monitoring and supporting information for a period of five (5) years from the date of the monitoring sample, measurement, report or application.

b. SULFUR CONTENT LIMITS:

(i) The permittee shall not burn or allow the use of any fuel with a sulfur content exceeding:

i. 0.2% by weight for EU-2 and EU-3 [PFE-32-0703-1106-II-C, PFE-32-0703-1194-II-C]

ii. 0.0015% by weight for EU-4. [PFE-32-0808-0410-II-C]

(ii) The permittee shall keep a copy of the fuel supplier certification indicating the sulfur content to demonstrate compliance with the requirement of keeping a daily record of the sulfur content in the diesel.

(iii) The permittee shall maintain monthly records where the operation time and fuel consumption for each engine is indicated.

(iv) The permittee shall submit a monthly report indicating on a daily basis the sulfur content (percent by weight) in the fuel consumed and the quantity of fuel consumption in each unit. This report shall be addressed to the Board to the attention of the Chief of the Validation Data and Mathematical Model Division no later than the next 15 days of the month following for which the report is representative and shall be kept available

at any times at the facility for the revision of the technical personnel of the Board or EPA.

(v) As specified in Rule 603(a)(4)(ii) of the RCAP, the permittee shall retain all records of required monitoring data and supporting information for a period of five (5) years from the date of the monitoring sample, measurement, report or application. These includes a record of the monthly fuel consumption and sulfur content in the fuel burned.

(vi) The permittee shall submit, with each semi-annual report and annual compliance certification, a summary of the reports for that year indicating the sulfur content by weight for the fuel consumed monthly.

c. OPERATING HOURS LIMIT:

(i) The permittee shall not exceed the operating hour's limit of 100 hours per year for each internal combustion engine in units EU-2, EU-3 and EU-4 for any period of twelve (12) consecutive months. The hours of operation for any consecutive 12-month's period shall be calculated by adding the monthly hours of operation for the unit to the total hours of operations for the unit for the previous 11 months.

a) In order to maintain the emergency use category as specified in 40 CFR Part 63 Subpart ZZZZ, each engine in EU-2 and EU-3 is authorized to operate for a maximum of 100 hours per calendar year for any of the combination of the purposes specified in 40 CFR §63.6640(f)(2)(i) through (iii), and up to 50 hours of operation in non-emergency situations, as specified in 40 CFR 63.6640(f)(4). The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency demand response provided in section 63.6640(f)(2) of the 40 CFR, whereas these 100 hours of operation shall be counted as part of the 100 hours of operation limit established on construction permits PFE-32-0703-1106-II-C and PFE-32-0703-1194-II-C.

b) In order to maintain the emergency use category as specified in 40 CFR Part 60 Subpart IIII, engine in EU-4 is authorized to operate for a maximum of 100 hours per calendar year for any of the combination of the purposes specified in 40 CFR §60.4211(f)(2)(i) through (iii), and up to 50 hours of operation in non-emergency situations, as specified in 40 CFR 60.4211(f)(4). The 50 hours of operation in non-emergency situations are counted as part of the 100 hours per calendar year for maintenance and testing and emergency

demand response provided in section 60.4211(f)(2) of the 40 CFR, whereas these 100 hours of operation shall be counted as part of the 100 hours of operation limit on construction permit PFE-32-0808-0410-II-C.

(ii) The permittee shall maintain and operate hour's meters in each engine.

(iii) As specified in Rule 603(a)(4)(ii) of the RCAP, the permittee shall retain all records of required monitoring data and supporting information for a period of five (5) years from the date of the monitoring sample, measurement, report or application. These include the records of the monthly and annual fuel consumption report.

(iv) The permittee shall submit, with each annual compliance certification, an annual report summary of reports indicating the operating hours of each engine of the monthly and annual terms.

d. NATIONAL EMISSION STANDARDS FOR HAZARDOUS AIR POLLUTANTS FOR STATIONARY RECIPROCATING INTERNAL COMBUSTION ENGINES (40 CFR Part 63, Subpart ZZZZ)

(i) According to Section 63.6590 of Subpart ZZZZ, the engines in the EU-2 and EU-3 units are affected by 40 CFR Part 63, Subpart ZZZZ: National Emission Standards for Hazardous Air Pollutants for Stationary Reciprocating Internal Combustion Engines (RICE NESHAP), hence it must comply with all applicable requirements of these regulations on or before May 3, 2013. The requirements include, but are not limited to, the following:

a. According to Table 2d to Subpart ZZZZ, the permittee shall:

i. change oil and filter every 500 hours of operation or annually, whichever occurs first;

1. You will have the option to use an oil analysis program as described in section 63.6625 (i) of 40 CFR in order to extend the specified oil change requirement specified in Table 2d to Subpart ZZZZ.

ii. inspect air cleaner every 1,000 hours of operation or annually, whichever comes first, and replace as necessary, and

iii. inspect all the hoses and belts every 500 hours of operation or annually, whichever comes first, and replace as necessary.

b. According to 40 CFR § 63.6625, the permittee shall:

i. operate and maintain the stationary RICE and after-treatment control device (if any) according to the manufacturer's emission-related written instructions or develop your own maintenance plan which must provide to the extent practicable for the maintenance and operation of the engine in a manner consistent with good air pollution control practices for minimize emissions.

ii. install a non-resettable hour meter, if one is not already installed.

iii. minimize the engine's time spent at idle during startup and minimize the engine's startup time to a period needed for appropriate and safe loading of the engine, not to exceed 30 minutes.

c. According to 40 CFR §63.6605, must operate the engine in order to minimizing emissions.

d. According to 40 CFR §63.6640, must continuously comply with the emissions and operating limitations and work or management practices contained in Table 6 to Subpart ZZZZ.

e. Must comply with the general rules as established by Subpart ZZZZ.

f. To maintain the emergency engine category, it shall comply with the use and operating limitations contained in 40 CFR §63.6640(f). For any engine operation that does not meet these requirements, the engine will not be considered as an emergency one under this Subpart and it shall comply with all requirements of the non-emergency engines and submit a revision to the construction and operation permit.

g. According to 40 CFR §63.6655, the permittee must keep records of the hours of operation of the engine that is recorded through the non-resettable hour meter. The permittee shall document how many hours are spent for emergency operation, including what classified the operation as emergency and how many hours are spent for non-

emergency operation. If the engines are used to operate in response to demand (demand response), you must keep records of the notification of the emergency situation, and the time the engine was operated on demand response.

(ii) The engine of unit EU-4 is subject to 40 CFR Part 63, Subpart ZZZZ. According to 40 CFR Section 63.6590, the engine of the EU-4 unit shall comply with the requirements of Subpart ZZZZ complying with the requirements of 40 CFR Part 60 Subpart IIII.

f. STANDARDS OF PERFORMANCE FOR NEW SOURCES OF STATIONARY COMPRESSION IGNITION INTERNAL COMBUSTION ENGINES (40 CFR PART 60, SUBPART IIII)

(i) The engine of unit EU-4 is subject to 40 CFR Part 60, Subpart IIII, hence it shall comply with all applicable requirements under this Subpart. The engine must comply with the following applicable requirements:

	Requirements	Reference
a.	Standards and Emission Limits: NMHC + NO_X: 7.8 g/hp-hr CO: 3.7 g/ hp-hr PM: 0.60 g/ hp-hr	Section 60.4205(c), Table 4 to 40 CFR
b.	Fuel requirements	Section 60.4207(a), (b), (e) of the 40 CFR.
c.	Import and installation requirements	Section 60.4208(h), (i) of the 40 CFR.
d.	Monitoring, installation, operation and maintenance	Section 60.4209(a) of the 40 CFR, or Section 60.4209(b) of the 40 CFR if it is equipped with a diesel particulate filter.
e.	Compliance Requirements	Section 60.4206 (a), (b), **(f)**, (g) of the 40 CFR, if the engine is manufactured prior to the model years established in Table 3 to Subpart IIII of 40 CFR Part 60 , or Section 60.4206 (a), (c), **(f)**, (g) of the 40 CFR, if the engine is manufactured during or after the model years established in Table 3 to Subpart IIII of Part 60 of the 40 CFR.
f.	Testing Requirements	Section 60.4212 of the 40 CFR.
g.	Notification, reporting and recordkeeping requirements	Section 60.4214 of the 40 CFR.

	Requirements	Reference
h.	General Provisions	Table 8 to Part 60, Subpart IIII of the 40 CFR.

(ii) According to 40 CFR Section 60.4207, diesel for unit EU-4 shall be bought in compliance with the requirements under 40 CFR Section 80.510(b). This is:

a. The sulfur content shall not exceed 0.0015% by weight and

b. The fuel shall comply with a minimum cetane index of 40 or a maximum aromatic content of 35% by volume.

(iii) The permittee shall operate the engine according to the requirements of paragraph (f) of section 60.4211, to be considered an emergency engine under this Subpart. If the engine is not operated according to the requirements of paragraph (f) of section 60.4211, the engine will not be considered an emergency engine under this Subpart and it shall comply with all applicable requirements under this subpart for non-emergency engines.

(iv) According to 40 CFR Section 60.4218, Table 8 of subpart IIII of 40 CFR Part 60 establishes the parts of sections 60.1 through 60.19 of 40 CFR that apply to the EU-4 unit.

Section VI - Insignificant Emission Units

The following activities shall be considered insignificant as long as **VMG** complies with the descriptions indicated below and is not subject to an applicable requirement.

Emission Source Identification	Units	Description (Exemption basis)
Engines of any vehicle to transport waste	-	Appendix B.3. iii. to the RCAP
Leachate recirculation tank truck	1	Appendix B.3.iii. to the RCAP
Activities related to the external maintenance of the facility grounds including lawn maintenance, painting the buildings, etc.	-	Appendix B.3.ii.(H) to the RCAP

Emission Source Identification	Units	Description (Exemption basis)
Air conditioners	4	Rule 206(B)(1) of the RCAP
Cooling/refrigeration system	3	Appendix 3.xxxxv. to the RCAP
Activities related to the maintenance shops such as welding equipment used as an auxiliary resource to the main equipment of the source.	1	Appendix B.3.ii.(E) to the RCAP
Storage tanks with a capacity less than 10,000 gallons	11	Appendix B.3.ii.(N) to the RCAP

Section VII - Permit Shield

A. As specified under Rule 603(D) of the RCAP, compliance with the conditions of the permit shall be deemed compliance with any applicable requirement as of the date of permit issuance, but only if such applicable requirement is included and specifically identified in the permit.

(1) Non Applicable Requirements

Non Applicable Requirements	Regulation	Non Applicability Principle
Standards of Performance for Municipal Solid Waste Sanitary Landfills Systems	40 CFR Part 60 Subpart WWW	The disposal of solid waste began in 1973.
National Emission Standards for Hazardous Air Pollutants: Municipal Solid Waste Sanitary Landfills Systems	40 CFR Part 63 Subpart AAAA	Not applicable to SLS with a Design Capacity greater than 2.5 million mega grams and 2.5 million cubic meters and an NMOC emission rate below 50 megagrams per year.
Standards of Performance for New Sources of Stationary Compression Ignition Internal Combustion Engines	40 CFR Part 60 Subpart IIII	Not applicable to EU-2 because this engine was ordered before July 11, 2005. Not applicable to EU-3 because this engine was ordered before July 11, 2005.

Non Applicable Requirements	Regulation	Non Applicability Principle
Standards of Performance for New Sources of Stationary Spark Ignition Internal Combustion Engines	40 CFR Part 60 Subpart JJJJ	Not applicable to EU-2, EU- 3 and EU-4 because they are not spark ignited internal combustion engines, these engines are ignited by compression.
Particulate matter emission limits for internal combustion engines	Rule 406 of the Regulation for the Control of Atmospheric Pollution.	Not applicable to EU-2, EU-3, and EU-4 because they do not comply with the Fuel Burning Equipment of Rule 102 of the RCAP because they do not produce power by indirect heat transfer.

Section VIII - Permit Approval

By virtue of the authority conferred upon the Environmental Quality Board by the Public Policy Environmental Act, Public Law Number. 416 of September 22, 2004, as amended, and after verifying the administrative record and compliance with the Uniform Administrative Procedure Act Law No. 170 August 12, 1988, as amended, the Clean Air Act, the Public Policy Act and the Regulation for the Control of Atmospheric Pollution, the Environmental Quality Board approves this permit subject to all the terms and conditions herein established.

In San Juan, Puerto Rico, June 9, 2016.

ENVIRONMENTAL QUALITY BOARD

Suzette M. Meléndez Colón
Vice President

Rebeca Acosta Pérez
Associate Member

Weldin F. Ortiz Franco
President

APPENDIX

Appendix I - Definitions and Abbreviations

A. Definitions:

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

2. Responsible Officer - See the definition of Responsible Officer as established in the EQB Regulation for the Control of Atmospheric Pollution (1995).

3. Regulation - Regulation for the Control of Atmospheric Pollution of the Environmental Quality Board.

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

B. Abbreviations

AP-42	*Compilation of Air Pollutant Emission Factors*
Btu	British Thermal Unit
C_{NMOC}	Non Methane Organic Compounds Concentration
CH_4	Methane
CO	Carbon Monoxide
CO_2	Carbon Dioxide
CO_2e	Carbon Dioxide Equivalent
NMOC	Non Methane Organic Compounds
CFR	Code of Federal Regulations
EPA	Environmental Protection Agency
GHG	Greenhouse Gases
HAP	Hazardous Air Pollutants
EQB	Environmental Quality Board of Puerto Rico
k	Methane Generation Rate Constant

Mg	Megagrams
MMBtu	Million Btu
NESHAP	National Emission Standards for Hazardous Air Pollutants
NAAQS	National Ambient Air Quality Standards
NSPS	New Sources Performance Standards
NO_x	Nitrogen oxides
NMHC	Non-methane hydrocarbons
Pb	Lead
PM	Particulate matter
PM_{10}	Particulate matter with a particle which diameter has an aerodynamic mass size equal to or less than (10) microns
PDS	Significant Deterioration Prevention *(acronym in Spanish)*
RCAP	Regulation for the Control of Atmospheric Pollution of the Environmental Quality Board
RMP	Risk Management Plan
SIC	Standard Industrial Classification
scfm	Standard cubic feet per minute
SLS	Sanitary Landfill System
SO_x	Sulfur oxide
SO_2	Sulfur dioxide
VMG	Guaynabo Municipal Landfill (acronym in Spanish)
VOC	Volatile Organic Compounds

COMMONWEALTH OF
PUERTO RICO
Environmental Quality Board

STATEMENT OF BASIS FOR TITLE V PERMIT
MUNICIPALITY OF GUAYNABO LANDFILL
PFE-TV-4953-32-1101-2391

The Environmental Quality Board (EQB) is issuing a Title V permit pursuant to Title 40 of the Code of Federal Regulations (CFR), Part 70 and Part VI of the Regulation for the Control of Atmospheric Pollution (RCAP) for the Municipality of Guaynabo Landfill (VMG, in Spanish). The facility is located on Road PR-834 Km 0.58 in Guaynabo, Puerto Rico. The EQB received an application for Title V permit on December 15, 2001, which was amended in several occasions.

The **Municipality of Guaynabo Landfill** is a closed municipal solid waste landfill that accepted municipal solid waste since 1973 and stopped receiving waste on May 5, 2008. Landfill Technologies, Corp. administers the Municipal Sanitary Landfill System (SLS) of Guaynabo.

When the landfill received the garbage, the solid waste was dumped from the hauling vehicle, spread and compacted by a compactor. The closure and the post-closure care include the landfill cap and long-term care provisions of the closed landfill. Closing a municipal sanitary landfill system, requires the landfill cap system to be made of an infiltration layer and coated by an erosion layer.

The decomposition of the encapsulated waste in the solid waste municipal landfill produces gas (greenhouse gases) such as methane (CH_4), carbon dioxide (CO_2) and other non-methane organic compounds (NMOC). This landfill is **not** required to install or operate a gas collection and control system since the NMOC emissions do not exceed the 50 megagrams per year (using the Tier 2 results, approved by the Board on May 11, 2011, that indicated the NMOC emission ratio was 12.55 megagrams per year).

The vehicles and equipment operating in the landfill will be only the following: trucks and equipment (e.g. lawn mower) used by the maintenance personnel, and equipment to maintain the landfill closure and the movement of vehicles to weight, inspect and transport the waste to the Transshipment Station located in the VMG facilities for later transfer to another sanitary landfill system.

The landfill is subject to the applicable requirements listed in Part VII - Emission Guidelines for Municipal Sanitary Landfill Systems of the RCAP. The VMG is required to have a Title V Operating permit because the design capacity of the landfill is greater than 2.5 million megagrams (Mg) and 2.5 million cubic meters (m^3). The landfill is a minor source of emissions of criteria pollutants, hazardous air pollutants and greenhouse gases (GHGs) expressed as CO_2e.

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Emission Units

The Emission Units section lists the significant emission units, the associated control equipment, if any, and fuel type. This section is a general description of the facility. The emission units are the following:

EU-1: Municipal Sanitary Landfill System. The landfill accepted municipal solid waste since 1973 and closed in 2008. The total of deposited waste was 2.815 million megagrams (3,096,314 tons of waste) during its active period. The NMOC emission rate is 12.55 Mg/year (13.83 tons/year) as determined through the Tier 2, therefore is not required to have and does not have a gas collection and control equipment.

EU-2: Emergency Electricity Generator. Includes a compression ignition internal combustion engine with a capacity of 122 hp. Consumes diesel at a rate of 5.79 gallons per hour. Olympian brand, model LL3014B. Although 40 CFR Part 63 Subpart ZZZZ does not limit the yearly operating hours in an emergency, the PREQB construction permit limit yearly operating hours for EU-2 to 100 hours/year. No control equipment.

EU-3: Firefighting pump. Includes a compression ignition internal combustion engine with a capacity of 140 hp. Consumes diesel at a rate of 7.4 gallons per hour. A-C brand, model 8100. Although 40 CFR Part 63 Subpart ZZZZ does not limit the yearly operating hours in an emergency, the PREQB construction permit limit yearly operating hours for EU-3 to 100 hours/year. No control equipment.

EU-4: Fire pump. Includes a compression ignition internal combustion engine with a capacity of 85 hp. Consumes diesel at a rate of 2.7 gallons per hour. Although 40 CFR Part 60 Subpart IIII does not limit the yearly operating hours in an emergency, the PREQB construction permit limit yearly operating hours for EU-4 to 100 hours/year. No control equipment.

Allowable Emissions

The emissions described in the following table represent the facility allowable emissions at the time of the permit application and will be used only for payment purposes. According to Rule 610(a) of the RCAP, when the **VMG** requests modification, administrative change or minor modification to its Title V permit, the source will only pay those charges related with any emissions increase (if any) per ton, based on the change and not based on the previously paid total charges in conformity with Rule 610(a) of the RCAP. The emissions cap was based on the 2012 emissions, the Tier 2 result for NMOC for the landfill that is already closed and the potential emissions of the internal combustion engines.

Pollutants	Allowable Emissions (tons/year)
PM_{10}	28.35
SO_2	0.03
NO_X	0.40
CO	1.95
NMOC	13.83
VOC (combustion)	0.04
HAP's	5.57
CO_2e	89,726

According to the EQB Resolution RI-06-02[1], the emissions calculations will be based on the current emissions of the **VMG**; however, calculations based on the emissions cap of the facility will be accepted. If **VMG** decides to realize the calculations based on the allowable emissions, **VGM** shall pay the same charge per ton as the facilities that decide to make the calculations based on current emissions. Also, according to EQB resolution R-04-04-1[2],to determine the charges for modification and renewal, **VMG** shall calculate the emissions with the k, Lo and CCONM factors established in Rule 704(a) of the RCAP or the specific values of k, Lo and CCONM as determined in Rule 704(c) and (d) of the RCAP.

Applicable Requirements

Emissions Guidelines and Compliance Schedules for Municipal Sanitary Landfill Systems established under Part VII of the RCAP (this is the current and approved plan by EPA that implements Title 40 of the Code of Federal Regulations (40 CFR) part 60, subpart Cc.)

This source of emission is subject to Part VII of the RCAP because the construction of the **VMG** started before May 30, 1991 and has a design capacity greater than 2.5 million megagrams or cubic meters. The facilities that are subject to this part must submit annual emissions reports and must install controls fi the NMOC emissions are greater than or equal to 50 megagrams per year. The facility used the Tier 2 calculations to determine the potential NMOC emissions, and these were below 50 megagrams per year, therefore the facility did not have to install a gas collection and control system.

[1] EQB Resolution - Payment procedure for Title V operating charges and Title V permit renewal charges, issued on March 20, 2006.

[2] EQB Resolution - Consultation to the Government Board about the annual calculation of the gas emissions to the atmosphere for Sanitary Landfills, issued on February 27, 2004.

National Emission Standards for Hazardous Air Pollutants for Reciprocal Internal Combustion Engines - 40 CRF Part 63, Subpart ZZZZ

This subpart applies to any stationary reciprocal internal combustion engine existing, new or reconstructed that is located in area sources or major sources of hazardous air pollutants. The **VMG** is a minor source of hazardous air pollutants. The engines of units EU-2 and EU-3 are considered existing and the engine of unit EU-4 is considered new. All three engines are authorized as emergency engines in their construction permits. The requirements under this regulation vary from oil and filter changes for the existing engines up to the compliance with the emissions cap of the 40 CFR Part 60, Subpart IIII for the new engine.

Standards of Performance for Stationary Compression Ignition Internal Combustion Engines - 40 CRF Part 60, Subpart IIII

This subpart applies to compression ignition stationary internal combustion engines that were ordered after July 11, 2005 and manufactured after April 1st, 2006. This subpart applies to the engine of unit EU-4. The requirements under this regulation require compliance with the emission limits.

The following requirements are not applicable to the Municipal Landfill of Guaynabo:

Emissions Guidelines and Compliance Schedules for Municipal Sanitary Landfill Systems under 40 CFR Part 60, Subpart Cc.) This subpart only applies to the air quality program Administrators, EQB in this case, that submitted a state plan (approved as Part VII of the RCAP) implementing the emission guidelines found in this subpart.

Standards of Performance for Municipal Solid Waste Landfills that commenced construction, reconstruction or modification on or after May 30, 1991 under the 40 CFR Part 60, Subpart WWW. This subpart is not applicable because the landfill is operating since 1973, and it has not been reconstructed or modified after May 30, 1991.

National Emission Standards for Hazardous Air Pollutants (NESHAP): Municipal Solid Waste Landfills - 40 CFR Part 63, Subpart AAAA apply to area sources that are subject to Part VII of the RCAP (they have a design capacity equal or greater than 2.5 million megagrams and greater than 2.5 million m^3 **and** non-controlled NMOC estimated emissions of 50 megagrams per year or more). This Subpart does not apply to the landfill because the estimated NMOC emissions do not exceed 50 megagrams per year.

Standards of Performance for Stationary Compression Ignition Internal Combustion Engines - 40 CFR Part 60, Subpart IIII applies to compression ignition stationary internal combustion engines that were ordered after July 11, 2005 and manufactured after April 1st, 2006. This subpart does not apply to the engines of units EU-2 and EU-3 because these were ordered before July 11, 2005.

Standards of Performance for Stationary Spark Ignition Internal Combustion Engines - 40 CFR Part 60, Subpart JJJJ applies to stationary spark ignition internal combustion engines. This subpart does not apply to the engines of units EU-2 and EU-3 and EU-4 because these are compression ignition engines and not spark ignition engines.

Particulate matter emission limit established in Rule 406 of the Regulations for the Control of Atmospheric Pollution. This Rule does not apply to units EU-2, EU-3, and EU-4 since these do not meet the definition of Fuel Burning Equipment of Rule 102 of the RCAP because they do not generate power by internal heat transfer.

The frequency of the reports for this source is semi-annual and the compliance certification is annual. Unless specifically established, all the terms and conditions of the Title V permit, including the provisions designated to limit the emission capacity of the source, are enforceable by the EPA and the citizens, under the Federal Clean Air Act. The terms and conditions that are designated as enforceable only by the state, as indicated by the permit, are enforceable by the EQB.

The EQB has determined that this Title V Operating Permit fulfills the requirements under Part VI of the RCAP.

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