



**Environmental
Protection
Agency**

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Environmental Permit

Issued under the Environmental Protection Act, Cap. 20:05, Laws of Guyana, the Environmental Protection (Amendment) Act, 2005, and the Environmental Protection (Authorisations) Regulations, 2000.

Reference No.:	20220302-MKALF
Fee:	Medium (C2) i.e. US\$800 per year
Fees Paid:	US\$4000 for Five (5) Years (June, 2022 – May, 2027)
Addressee:	Mohamed Khaleem Ally 52 Lima Housing Scheme Essequibo Coast
Activity:	Operation of a Final Disposal Facility

Mohamed Khaleem Ally, hereinafter referred to as the “Permit Holder”, is hereby authorised in accordance with the Environmental Protection Act, Cap. 20:05, the Environmental Protection (Amendment) Act, 2005, and the Environmental Protection (Authorisations) Regulations, 2000, to Operate a Final Disposal Facility at Coffee Grove, Lima, Essequibo Coast, Region 2 hereinafter referred to as the “Project”, in a manner indicated in the Application for Environmental Authorisation submitted on March 02, 2022 and subject to the terms and conditions set forth herein under the Environmental Protection Act, Cap. 20:05, existing and/or forthcoming regulations, guidelines, best practices and standards relevant to this project.

The Permit Holder, His Servants, Agents and/or Sub-contractors shall comply with the following Terms and Conditions:

1.0 OPERATION

1.1 Make an application to the Agency to vary this Permit in instances where it becomes necessary to:

- i. change the construction, operation, structure, or layout of the facility and all associated buildings;
- ii. change equipment, machine, apparatus, mechanism, system or technology serving the facility;
- iii. change the position and design of any outlet at the point or points of discharge of effluents; or
- iv. effect any other change outlined in 20(3) of the Environmental Protection (Authorisations) Regulations.

1.2 The final disposal facility shall be constructed in accordance to the design features submitted in the project summary and approved by the EPA on June 01, 2022.

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- 1.3 Drainage systems shall be constructed to prevent the flow of storm water to the Final Disposal Facility and to collect run-off from site. Storm water run-off that has been in contact with waste shall be directed to the leachate treatment system.
- 1.4 Soil covering materials shall be readily available at the project for final covering of wastes. Preferably, the site shall have adequate soil to also meet required covering needs (usually a minimum of 15 cm depth of soil).
- 1.5 Measures shall be implemented to prevent or control the proliferation of birds, vermin and vectors at the Final Disposal Facility, including but not limited to, compaction and covering of waste at the end of each operating day.
- 1.6 Materials utilized for road construction, waste processing and storage areas and vehicle washing areas shall be impermeable. The aforementioned areas shall also be curbed to prevent runoff to permeable areas.
- 1.7 An impervious surface shall be constructed for the storage of machinery and equipment used by the project to reduce soil contamination by metals, oil, and other contaminants.
- 1.8 Washing and cleaning of equipment at the facility is **strictly prohibited**.
- 1.9 The following waste shall **strictly be prohibited** at the Final Disposal Facility. This shall be informed by signage.
 - Explosive or highly combustible materials
 - Off-site liquid waste
 - Bio-hazardous waste
 - Dead animals (unless special disposal is given)
 - Radioactive waste
- 1.10 A buffer zone of trees or other suitable vegetation shall be established and maintained around the perimeter of the facility.
- 1.11 A daily register of waste received at the facility including type of waste, waste generator quantity of waste received shall be established and maintained. These records shall be made available to the EPA upon request.

2.0 LEACHATE MANAGEMENT SYSTEM

- 2.1 A drainage layer shall be installed and maintained underneath the waste fill / processing area to provide adequate leachate drainage from composting organics. This may consist of a bed of coarse material such as shredded tires, wood chips, or alternatively the processing platform may permanently incorporate a drainage layer designed to withstand the loading, working and removal of material.
- 2.2 Leachate generated in the cell shall be directed to the leachate treatment pond for treatment prior to discharge into the environment.

- 2.3 Leachate shall be treated using any one of the potential treatment methods such as aerated lagoons, activated sludge, anaerobic digestion, artificial wetlands, re-circulation, membrane filtration, ozone treatment, peat beds, sand filters, and methane stripping.
- 2.4 Leachate collection pipe shall be cleaned and maintained once/twice yearly to prevent clogging. The leachate treatment pond shall be inspected on a daily basis.
- 2.5 The slope and orientation of leachate drains shall be maintained to facilitate free drainage of leachate from the cell to the collection drain to avoid ponding of leachate.
- 2.6 Storm water contaminated with waste shall be channeled to the leachate collection and treatment system. Discharge of contaminated storm water directly into the environment is strictly prohibited.

3.0 WATER QUALITY

- 3.1 The Final Disposal Facility shall be operated with sound environmental standards and shall not release any pollutants that would violate the provisions of the **Environmental Protection (Water Quality) Regulations, 2000**.
- 3.2 The Permit holder shall build and maintain a surface water drainage system that can collect and control, at a minimum, the surface water volume that results from a 24-hours of rainfall.
- 3.3 Maintain the integrity of the existing surface waters and groundwater at all times. The quality of treated and discharged effluent, existing surface waters and groundwater should be in accordance with the **Guyana National Bureau of Standards (GNBS) Interim Guidelines for Industrial Effluent Discharge into the Environment**. The following are the allowable limits for the general environment and should not be exceeded:

Parameter	Surface Water	Groundwater	Effluent Discharge
1. pH (GNBS) <i>Interim Guidelines for Industrial Effluent Discharge into the Environment</i>)	5.0-9.0	5.0-9.0	5.0-9.0
2. Temperature (GNBS) <i>Interim Guidelines for Industrial Effluent Discharge into the Environment</i>)	< 40 °C	< 40 °C	< 40 °C
3. Biological Oxygen Demand (BOD ₅) (GNBS) <i>Interim Guidelines for Industrial</i>	< 50 mg/L		< 50 mg/L

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<i>Effluent Discharge into the Environment)</i>			
4. Chemical Oxygen Demand (COD) (GNBS) <i>Interim Guidelines for Industrial Effluent Discharge into the Environment</i>).	< 250 mg/L		< 250 mg/L
5. Total Suspended Solid (TSS) (GNBS) <i>Interim Guidelines for Industrial Effluent Discharge into the Environment</i>)	< 50 mg/L		
6. Phosphorus (P) (GNBS) <i>Interim Guidelines for Industrial Effluent Discharge into the Environment</i>)			< 2mg/ L
7. N as HN ₃ (GNBS) <i>Interim Guidelines for Industrial Effluent Discharge into the Environment</i>)	< 10 mg/ L	< 10 mg/ L	< 10 mg/ L
8. Coliform (GNBS) <i>Interim Guidelines for Industrial Effluent Discharge into the Environment</i>)		<400 MPN per 100 ml	
9. Oil and Grease (GNBS) <i>Interim Guidelines for Industrial Effluent Discharge into the Environment</i>)	< 10 mg/L		< 10 mg/L

- 3.4 The Permit Holder shall prepare and submit to the EPA for approval by **December 31, 2022**, a sampling and monitoring plan for surface water, groundwater and effluent discharge from the project. The plan shall consider the parameters above and include but not limited to the frequency and location of monitoring with a focus on the main watercourses in close proximity to the project.
- 3.5 The Permit holder shall ensure that a minimum of three groundwater monitoring wells, one up- gradient and two down- gradient of the project is installed and established. Groundwater monitoring protocol shall be submitted to the EPA by **December 31, 2022** for approval.

4.0 AIR QUALITY MANAGEMENT

- 4.1 Adhere to the provisions of the **Environmental Protection (Air Quality) Regulations, 2000** and **WHO 2021 air quality guidelines for ambient air quality**.
- 4.2 A gas venting system including but not limited to a passive venting system shall be installed and maintained for the release of methane gas from the facility.
- 4.3 Monitor ambient air quality at the boundary of the project to assess compliance with the requisite standards below:

Air Pollutant	Averaging Time	Maximum Permissible Level	Type of Monitoring
PM _{2.5}	24 h	25µg/m ³	Ambient
PM ₁₀	24 h	50µg/m ³	Ambient
Carbon Monoxide	8h	(10mg/m ³)	Ambient
Nitrogen Dioxide	1 h	200µg/m ³	Ambient
Sulphur Dioxide	24 h	20 µg/m ³	Ambient

- 4.4 The Permit Holder shall prepare and submit to the EPA for approval by **December 31, 2022**, a sampling and monitoring plan for air quality monitoring. The plan shall consider the parameters above and include but not limited to the frequency, location and monitoring with a focus on methane emission. Monitoring shall be conducted during normal operations by trained personnel utilizing calibrated equipment.
- 4.5 Methane concentrations in all enclosed structures within 250 m of the final disposal facility shall not exceed the threshold of 1% (volume/volume).
- 4.6 Vehicles operating on site shall be restricted to a speed limit of 15 km/h to minimise dust emission from internal roads. This speed limit shall be informed by signage.

5.0 NOISE QUALITY MANAGEMENT

- 5.1 Adhere to the provisions of the **Environmental Protection (Noise Management)**

Regulation, 2000.

- 5.2 Maintain all equipment e.g. forklifts, excavators on site in accordance with the manufacturer's specifications to ensure optimal performance and reduce excessive noise emissions.
- 5.3 Switch off equipment when not in use. Limit idling of machinery, equipment or vehicles, as far as practical.
- 5.4 Monitor noise emissions from all noise producing equipment at a distance of fifty (50) ft from the source to determine compliance with the Guyana National Bureau of Standards (GNS) Guidelines for Noise Emission into the Environment. Noise Limits should not exceed the Industrial Limits of:

100 dB (Day-time (06:00 - 18:00h))
80 dB (Night- time (18:00h - 06:00h))

- 5.5 Maintain an inventory of all noise producing equipment and the noise emitted at a distance of fifty (50) ft.
- 5.6 Monitoring should be conducted bi- annually by trained personnel using calibrated Type 2 Sound Level Meters. Records of all monitoring exercises should be maintained and submitted as part of the Annual Report.

6.0 LITTER CONTROL

- 6.1 In accordance with the **Environmental Protection (Litter Enforcement) Regulations, 2013**, promote good sanitation and solid waste disposal practices on site.
- 6.2 Waste hauling vehicles shall be enclosed or covered with tarps to prevent windblown litter.

7.0 COMPLIANCE MONITORING AND REPORTING

- 7.1 Notify the Environmental Protection Agency within **one (1) hour** of the discovery of the occurrence of environmental emergencies (e.g., oil spills, hazardous materials/wastes, and chemicals sudden onset disaster, natural technological or human induced factors that cause or threaten to cause severe environmental damage as well as harm to human health or livelihood). Notification as prescribed by Section 19(3)(a) of the Environmental Protection Act, shall be submitted to the EPA within **twenty-four (24) hours** of discovery of the incident occurring.
- 7.2 Monitor the implementation of the conditions of this Permit, insofar as they involve adherence by your employees and all third parties under your direction.

- 7.3 Make all employees, and third parties under your direction, aware of the conditions of the Environmental Authorisation and provide training on good environmental practices.
- 7.4 Notify the Agency in writing of any change of name or ownership of the Permit Holder's facility within **thirty (30) days** after the change occurs.
- 7.5 Notify the Agency **within twenty-one (21) days** in event of death, bankruptcy, liquidation or receivership of the Permit Holder or if the Company becomes a party to an amalgamation.
- 7.6 Submit an **Annual Report** to the EPA on your compliance with this on or before **March 31, each year**.
- 7.7 Report to the Agency any non-compliance(s) with the Environmental Permit (Renewed):
- i. Within **twenty-four (24) hours** of the time the Holder of the Environmental Permit (Renewed) becomes aware of the non-compliance outlining the anticipated manner in which human health or the environment may be impacted.
 - ii. Within **seventy-two (72) hours** of the time the Holder of the Environmental Permit (Renewed) becomes aware of the non-compliance, submit to the Agency a written report containing a description of the non-compliance, its cause, the period of non-compliance including exact dates and time and the anticipated time it is expected to continue if the non-compliance(s) has not been corrected.
- 7.8 Comply with any lawful directions given by the EPA from time-to-time in furtherance of the implementation of any international or other obligation for the environmental protection of Guyana.
- 7.9 It is the responsibility of the Permit Holder to ensure the permitted activity and premises are secured and that all practicable steps necessary to prevent fires, explosions, leaks or suspected leaks and spills at the permitted premises are taken.

8.0 INSTITUTIONAL AUTHORITY/ LIABILITIES

- 8.1 The Permit Holder shall be liable for any material environmental harm caused by polluting the environment, pursuant to s. 39 of the Environmental Protection Act, Cap. 20:05, Laws of Guyana.
- 8.2 The Permit Holder shall be liable for any serious environmental harm caused by polluting the environment, pursuant to s. 39 of the Environmental Protection Act, Cap. 20:05, Laws of Guyana.
- 8.3 The Permit Holder shall be liable for any activity that causes or is likely to cause pollution of the environment unless all reasonable and practicable measures are taken to prevent or minimize any resulting adverse effect, pursuant to s. 19 of the Environmental

Protection Act, Cap. 20:05, Laws of Guyana.

- 8.4 The Permit Holder shall be liable for discharging, causing or permitting the entry into the environment, of any contaminant in any amount, concentration or level excess of that prescribed by the regulations or stipulated by this Environmental Permit, pursuant to s. 19 of the Environmental Protection Act, Cap. 20:05, Laws of Guyana.
- 8.5 The Permit Holder shall be liable to compensate any person who suffers any loss or damage as a result of contravening conditions 6.3 and 6.4 of this Environmental Permit, pursuant to s. 19 of the Environmental Protection Act, Cap. 20:05, Laws of Guyana.
- 8.6 The Permit Holder shall not be indemnified by the Agency for any activity that causes or is likely to cause pollution to the environment, resulting from adverse effects through the discharge, any contaminant in any amount, concentration, ultra-hazardous substances, chemicals or otherwise, and shall be rendered liable to prosecution and to penalties prescribed under the Environmental Protection Act and Regulations.
- 8.7 The Permit Holder shall be liable of any gross negligence or willful misconduct caused by the Permit Holder, his Servants and/or Agents, to the environment, biodiversity, protected species and natural habitat with respect to any release, discharge, or spill, of contaminant fluids, oil or lubricants.
- 8.8 Should the Permit Holder contravene or be likely to contravene any condition of this Permit, the Agency (EPA) may serve on him an Enforcement Notice in accordance with Section 26 of the Environmental Protection Act, Cap. 20:05, Laws of Guyana.
- 8.9 Where it appears to the Agency that the Permit Holder is engaged in any activity that may pose a serious threat to natural resources or the environment, or a risk of serious pollution of the environment or any damage to public health, the EPA may issue to the Permit Holder a Prohibition Notice, which may order him to immediately cease the offending activity, in accordance with Section 27 of the Environmental Protection Act, Cap. 20:05, Laws of Guyana.
- 8.10 The EPA reserves the right to conduct regular inspections of the Permit Holder's construction activities as part of its monitoring and enforcement requirements under the Environmental Protection Act, Cap 20:05, and the Environmental Protection (Amendment) Act, 2005, and Environmental Protection (Authorisations) Regulations, 2000.
- 8.11 The Permit Holder, His Servants and/or Agents shall at all times, allow entry to the permitted facility to any Officer designated by the EPA for the purposes of conducting inspections or any other legitimate business of the Agency. Pursuant to Section 38 of the Environmental Protection Act, Cap. 20:05, Laws of Guyana, it is an offence to assault, obstruct or hinder an authorised person in the execution of his/her duty under the said Act or its Regulations and the Permit Holder shall be liable to penalties prescribed under paragraph (c) of the Fifth Schedule for doing so.

- 8.12 The EPA has the right to modify, cancel or suspend this Permit for breach of any of the terms and conditions contained herein.
- 8.13 **This Environmental Permit is not the final consent; all relevant Permissions should be obtained from other regulatory bodies for continued operation.**
- 8.14 This Environmental Permit is effective for the period stipulated herein; **June 2022 to May 2027.**
- 8.15 This Environmental Permit shall remain valid until **May 31, 2027**, unless otherwise suspended, cancelled, modified or varied, in accordance with the provisions of this Permit or the Environmental Protection Act, Cap. 20:05, Laws of Guyana, Environmental Protection (Amendment) Act, 2005, and the Environmental Protection (Authorisations) Regulations, 2000.
- 8.16 This Permit must be renewed by submitting a completed *Application Form for Renewal of Environmental Authorization* to the Agency at least six months before this Permit expires, that is, no later than **December 31, 2026.**
- 8.17 Any late submission of renewal application (s) after the specified date as stated above, the Agency may require the Permit Holder to pay, in addition to renewal fee, a late penalty fee (accruing at the time such obligation was first owed for renewal) at a rate of two thousand dollars (GY\$2000.00) per day for every business day late, until such renewal application is submitted to the Agency, without prejudice to any other rights of the Permit Holder in connection therewith.
- 8.18 Failure to comply with the requirements of this Permit or with applicable laws and regulations, whether existing or forthcoming, shall render the Permit Holder liable to prosecution and to penalties, inclusive of civil penalties, injunctive relief and imprisonment, as prescribed under the Environmental Protection Act, Cap. 20:05, Laws of Guyana, the Environmental Protection Regulations and other applicable.

Signed by  on behalf of the Environmental Protection Agency.

Kemraj Parsram
Executive Director

Date 2022.07.08



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Issued under the Environmental Protection Act, Cap. 20: 05, Laws of Guyana, the Environmental Protection (Amendment) Act, 2005, and Environmental Protection Authorisations Regulations, 2000.

I hereby accept the above terms and conditions upon which this Environmental Permit is granted and agree to abide by the Environmental Protection Act, Cap. 20:05, the Environmental Protection (Amendment) Act, 2005, and the Environmental Protection (Authorisations) Regulations, 2000, and any forthcoming regulations, guidelines, best practices and standards made under this Act.

NAME	Mohamed . H . Alley
DESIGNATION	Owner
SIGNATURE	Mohamed . H . Alley
DATE	July 11, 2022

