



**Environmental
Protection
Agency**

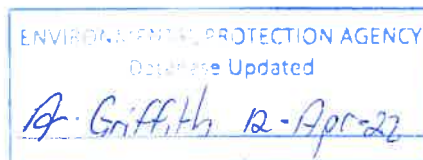
Ganges Street, Sophia
Georgetown, GUYANA
Tel.: (592)-225-5467-9
Fax: 225-5841
Email: epa@epaguyana.org
Website: www.epaguyana.org

Environmental Permit (Renewed)

(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.:	20140127-AFPRS
Fee:	Medium (C1) -US\$800 per year
Fees Paid	US\$2,400 – Three (3) years (October, 2021 - September, 2024)

Addressee(s): Mr. Lennox John
52, Hadfield Street
Werk-en-Rust
Georgetown



Activity: Operation of a Sand Mine

Lennox John, hereinafter referred to as the "Permit Holder", is hereby authorised in accordance with the Environmental Protection Act, Cap. 20:05, Laws of Guyana, the Environmental Protection (Amendment) Act, 2005, and the Environmental Protection (Authorisations) Regulations, 2000, to operate a Sand Mine within the confines of designated Block: A-180/MP/000 located at the confluence of Madewini River and Yarowkabra Creek, hereinafter referred to as the "Project", in the manner indicated in the Renewed Application submitted on June 05, 2019, subject to the terms and conditions set forth herein under the Environmental Protection Act, Cap. 20:05, existing and/or forthcoming regulations made under the said Act, and/or applicable laws, best practices, guidelines and standards relevant to this project.

This is a Renewal of the Operation Permit, Reference # 20140127-AFPRS, issued on June 19, 2014 and expired on May 31, 2015.

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

1.0 OPERATION

- 1.1 Make an application to the Agency to vary this Operation Permit (Renewed) in instances where it becomes necessary to:

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Environmental Permit (Renewed)- Ref. No. 20140127-AFPRS

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- 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 Ensure all mining activities are conducted within the boundaries bearing the reference number A-180/MP/000 located at the confluence of Madewini River and Yarowkabra Creek, issued by the Guyana Geology and Mines Commission (GGMC) for Sand Mine.
- 1.3 Maintain all demarcated boundary limits for the site claim and the periphery of the concession as prescribed by the Guyana Geology and Mines Commission (GGMC), using signage, fences or other means.
- 1.4 Maintain demarcated boundary limits for the mine sites and a non-extractable, vegetated buffer zone at least 20 m wide as follows:
 - i. Between your mining blocks and other different contiguous land-use activities.
 - ii. Around the mine site.
 - iii. Around the property boundary.
 - iv. Around any water source/spring located on the property.
- 1.5 Maintain good housekeeping, sanitary and hygienic practices, and the aesthetic quality of your surroundings at all times.

2.0 EMPLOYEES, OCCUPATIONAL HEALTH AND SAFETY

- 2.1 Adhere to the requirements of **the Occupational Safety and Health Act, Cap. 99:01, Laws of Guyana.**
- 2.2 Employees, including third party contractors, shall at all times be well protected and equipped with personal protective equipment as per job specification such as but not limited to: hi-visibility vests, respirator, hard hats, gloves, and appropriate footwear and ensure appropriate utilisation of these gear.
- 2.3 Prepare and maintain an employee log of distribution of Personal Protective Equipment.
- 2.4 Provide a well-equipped first aid kit at the work site.



- 2.5 Communication and transportation systems shall be maintained to respond to emergencies.
- 2.6 Make all employees/third party contractors aware of the Conditions of this Operation Permit (Renewed) (20140127-AFPRS) and provide training on the requirements of the Permit and good environmental management practices.
- 2.7 Prepare and maintain a training file of all employees/Contractors of training completed. This list should be available upon Officers request during Compliance Inspection of the Sand Mining operation.

3.0 WATER QUALITY MANAGEMENT

- 3.1 Implement practical measures such as siltation fences, sedimentation berms or other sediment control structures in erosion prone areas to prevent pollution of the Madewini River and Yarowkabra Creek or any other streams and natural water ways that may be found within or adjacent to your mining concession.
- 3.2 At all times, avoid water contamination from fuel, grease and waste oils.
- 3.3 Store overburden stockpiles away from drainage systems and beyond **200 meters** of away from any waterway, creek or drainage system.
- 3.4 Consider the weather pattern before initiating major earthworks e.g., road maintenance, topsoil excavation. Monitor areas of exposed soil during periods of heavy rainfall.
- 3.5 Conduct site clearing of any mine expansion panels in a gradual and phased manner to minimize sediment discharge.
- 3.6 Not operate the sand mining pit within **two hundred (200) meters** of any surface water body e.g., river, spring, creeks etc., located within or around the allocated Mining Block without first obtaining approval from the EPA and the implementation of adequate mitigation measures to reduce/ eliminate any adverse Environmental impacts.
- 3.7 Determine and demarcate the 'high' ground water depth. Conduct excavation to a depth that leaves five (5) meters above the water table. No mining is allowed at or below the water table.
- 3.8 Design and maintain a well-established drainage network to limit surface run off into these sensitive water bodies.



4.0 BIODIVERSITY PROTECTION

- 4.1 Report any occurrences of illegal wildlife trapping and trading in the project area to the EPA and Guyana Wildlife Conservation and Management Commission.
- 4.2 Prohibit the hunting, trapping, trading and removal of wildlife that is found within the Mining Site by employees.
- 4.3 Avoid or minimise the creation of barriers that would impede the movement of wildlife or cause a threat to their migration.
- 4.4 Site access routes and facilities in locations that avoid impacts to critical terrestrial habitats, and plan construction activities to avoid sensitive times of the year.

5.0 BUFFER ZONES MANAGEMENT

- 5.1 Maintain demarcated boundary limits for the site claim. Utilise proper signage and security measures throughout the mining concession to keep unauthorised persons from accessing restricted and high-risk areas.
- 5.2 Establish and maintain a non-extractable, vegetative buffer zone of at least **one hundred and fifty (150) meters wide** between Sand Mining pit and adjoining areas with different land uses to buffer noise and fugitive dust emissions.
- 5.3 Re-contour mined-out areas within your concession to address the effects of erosion, wildlife movement, landslide and Occupational Health and Safety hazards.
- 5.4 Conduct all mining related activities at least **two hundred (200) meters** away from nearby Communities/ residential settlements.

6.0 VEGETATION CLEARING, TOP SOIL STRIPPING AND RECLAMATION

- 6.1 Place topsoil directly onto an area being rehabilitated to reduce double handling of soil.
- 6.2 Conduct reclamation activities at mined-out sites/pits, in accordance with the stipulations of the Guyana Geology and Mines Commission Environmental Codes of Practice for Sand Mining.

- 6.2.1 Progressively rehabilitate the site allocating at least one metre (1 m) of the topsoil (including all vegetation cleared from the site) to be used as backfill material. Rehabilitation will include reduction of slopes to prevent landslides and/or erosion, and re-vegetation.
- 6.3 Not store topsoil (overburden) within **three (3) metres** of natural vegetation or mine face. Top soil and vegetation should be carefully stripped and stockpiled in an allocated area marked by a sign, so that it can be used for reclamation and re-vegetation as mining finishes.
- 6.4 Keep top soil alive by covering and allowing vegetative growth.

7.0 ROADS

- 7.1 Design and construct mine access road(s) to limit erosion. The running surface of the road should be crowned with a compacted layer and should have sufficient diversion drains and culverts to direct storm water away from surface water bodies.
- 7.2 Maintain the access road leading to the mine Site. In the event that ruts/holes are developed, fill with suitable material (such as compacted fill) as much possible to reduce the potential for erosion.
- 7.3 Establish and maintain a non-extractable vegetative buffer zone of **one hundred (100) meters** between the mine/pit parallel and all major public/ private roadways and power lines.
- 7.4 Minimise soil erosion by constructing sloped roads that shall have berms with compacted material on both sides.
- 7.5 Grade, compact, and wet specified section of the access road to maintain the road.
- 7.6 Equip trucks with the necessary reflecting signage to warn the public of impending danger of parked/moving trucks on the public thoroughfare.
- 7.7 Install adequate safety signs along roads informing users of dangerous bends, crossing of haul trucks, speed limits, etc.
- 7.8 Ensure that activities of the operation do not impede road traffic.

8.0 NOISE QUALITY MANAGEMENT

- 8.1 Comply with the **Environmental Protection (Noise Management) Regulation, 2000.**



8.2 Comply with *Guyana National Bureau of Standards (GNBS) Guidelines Noise Emissions into the Environment*, not exceeding the limits below at a distance of 15 meters (50 feet) from the source or property boundary, whichever is closer.

- Industrial Limits: **100 dB** [Daytime Limits (06:00 h-18:00 h)]
80 dB [Night-time Limits (18:00 h – 06:00h)]

8.3 Equip all significant noise-producing equipment, e.g., generators etc. with appropriate silencers or mufflers and/or are enclosed in suitable acoustic enclosures to reduce noise levels impacting the surrounding environment to achieve compliance with GNBS requirement.

8.4 Operate all mechanical equipment in accordance with manufacturer's specifications. All mechanical equipment, vehicles, should be regularly maintained and operated at their optimal levels to ensure efficiency and reduce the noise levels produced.

9.0 AIR QUALITY MANAGEMENT

9.1 Comply with the provisions of the **Environmental Protection (Air Quality) Regulations, 2000.**

9.2 Operate and service all mechanical equipment in accordance with manufacturer's specifications at all times. Additionally, ensure that mechanical equipment and vehicles are regularly maintained and work at their optimal levels to minimize atmospheric emissions.

9.3 Maintain vegetative buffer around active Mine Site to aid with the control of dust and dust particles that are likely to be emitted during mining activities.

9.4 Maintain an inventory of all sources of air contaminants e.g., Generators, Heavy duty equipment, trucks etc. on site. The Inventory should be submitted in the Project's Environmental annual report.

9.5 Trucks transporting mined material should be covered with a tarpaulin **at all times.**

9.6 Trucks transporting materials shall not exceed the established speed limit of the roads so as to minimise dust generation on the road. Additionally, road should be soaked in areas close to farms, settlements to not exceed ambient dust levels and become a nuisance to residents.

10.0 WASTE MANAGEMENT

- 10.1 Adhere to the provisions of the **Environmental Protection (Litter Enforcement) Regulations, 2013.**
- 10.2 Dispose solid waste in a manner approved by the EPA and away from all mineral reserves allocated for mining and dwellings.
- 10.3 Construct and maintain solid waste pits, they should be located at least one hundred (100) meters away from any watercourses, or sensitive habitation that may be found within the Mining Concession. The waste sites should be constructed above the ground water table and lined to the floor with an impervious, earthen or other material to prevent leaching to ground water.
- 10.4 Do **not** dispose waste in or near the waterways (Madewini River and Yarowkabra Creek, etc.).
- 10.5 Provide covered garbage receptacles at strategic locations, at the project site, which should be emptied, cleaned and maintained.
- 10.6 Promote reduce, reuse, recycling and/or composting of waste materials.
- 10.7 Burning is prohibited at all-time unless otherwise approved by the Environmental Protection Agency.
- 10.8 Implement waste control measures to minimise odour and loss of visual aesthetics around the solid waste pit.
- 10.9 Construct and maintain **new or existing** pit latrine(s) in accordance with the *Guyana Bureau of Standard (GNBS) Code of Practice for the Design and Construction of Ventilated Improved Pit Latrines.*

11.0 COMPLIANCE MONITORING AND REPORTING

- 11.1 Monitor the implementation of the conditions of this **Operation Permit (Renewed)**, insofar as they involve adherence by employees and all third parties under your direction.
- 11.2 Submit **Environmental Annual Reports** to the EPA on or before **March 31** every year on your compliance with this Permit.
- 11.3 Ensure the reports and records of monitoring include the following:
 - The names of the individuals and designations, who conducted sampling, prepared and compiled the reports;

- The date, place/location, time, weather conditions, techniques and methods used in sampling;
 - The date the measurements were compiled or analysed and the names of the individuals who compiled the information;
 - Observations, readings, calculations, benchmarks, bench data, the results of analyses;
 - Limitations of the sampling process and all other occurrence at the time of study, which may affect the results;
 - Photographs and drawings of all relevant aspects of the operation; and
 - The state of operation of facilities at the time of measurement, including planned and unplanned shutdowns, production levels and achievement of design capacity, identification of release point, source of release and substances being released.
- 11.4 Inform the Agency prior to or within **thirty (30) days** of any change of name or ownership of the operation.
- 11.5 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.
- 11.6 Notify the EPA **within one (1) hour** of the occurrence of any environmental emergencies such as a sudden onset disaster, accident, natural, technological or human induced factors that cause or threaten to cause severe environmental damage as well as harm to human health or livelihood.
- 11.7 Report to the Agency any non-compliances with the Operation Permit:
- 11.7.1 Within **twenty-four (24) hours** of the time the Holder of the Operation Permit (Renewed) becomes aware of the non-compliance, the anticipated manner in which it may endanger human health or the environment.
 - 11.7.2 Within **seventy-two (72) hours**, submit to the Agency a written report containing a description of the non-compliance, its cause and the period of non-compliance including exact dates and time.
 - 11.7.3 Submit a report to the Agency indicating the reasons and the anticipated time it is expected to continue if the non-compliance has not been corrected.
- 11.8 Prepare and submit a detailed Reclamation Plan for approval six (6) months before the actual reclamation process commences.

- 11.9 Submit to the Agency a detailed Project Closure Plan for review and approval two (2) years prior to closure. Thereafter, the closure plan will be updated and reviewed at a frequency agreed to with the Agency.
- 11.10 Submit to the EPA, the Mining License from the Guyana Geology and Mines Commission (GG&MC) **within one (1) Month** of issuance.
- 11.11 Notify the EPA once the roads are constructed in order for an assessment to be conducted before the expiration of the Permit.

12.0 INSTITUTIONAL AUTHORITY/ LIABILITIES

- 12.1 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.
- 12.2 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.
- 12.3 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.
- 12.4 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 Operation Permit (Renewed), pursuant to s. 19 of the Environmental Protection Act, Cap. 20:05, Laws of Guyana.
- 12.5 The Permit Holder shall be liable to compensate any person who suffers any loss or damage as a result of contravening conditions 7.3 and 7.4 of this Operation Permit (Renewed), pursuant to s. 19 of the Environmental Protection Act, Cap. 20:05, Laws of Guyana.
- 12.6 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

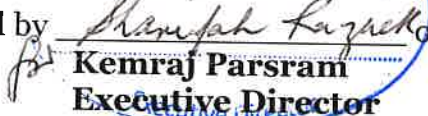
be rendered liable to prosecution and to penalties prescribed under the Environmental Protection Act and Regulations.

- 12.7 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.
- 12.8 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.
- 12.9 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.
- 12.10 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.
- 12.11 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.
- 12.12 The EPA has the right to modify, cancel or suspend this Permit for breach of any of the terms and conditions contained herein.
- 12.13 **This Environmental Permit (Renewed) is not the final consent; all relevant Permissions should be obtained from other regulatory bodies for continued operation.**
- 12.14 This Environmental Permit (Renewed) is valid for the period stipulated herein **October, 2021 to September, 2024.**

Environmental Permit (Renewed)- Ref. No. 20140127-AFPRS

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.

- 12.15 This Environmental Permit (Renewed) shall remain valid until **September 30, 2024**, unless otherwise suspended or revoked in accordance with the provisions of this Permit or the Environmental Protection Act, Cap. 20:05, Laws of Guyana, the Environmental Protection (Amendment) Act, 2005, and the Environmental Protection (Authorisations) Regulations, 2000.
- 12.16 This Permit must be renewed by submitting a completed *Application Form for Renewal of Environmental Authorisation* to the Agency at least six months before this Permit expires, that is, no later than **March 31, 2024**.
- 12.17 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 the 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\$2,000.00) 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.
- 12.18 Failure to comply with the requirements of this Permit shall render the Permit Holder liable to prosecution and to civil penalties and/or injunctive reliefs prescribed under the Environmental Protection Act, Cap. 20:05, the Environmental Protection (Amendment) Act, 2005, and the Environmental Protection (Authorisations) Regulations, 2000, including under any existing and forthcoming regulations made under the said Act or any other applicable Laws of Guyana.

Signed by  on behalf of the Environmental Protection Agency.
Kemraj Parsram
Executive Director

Date: 2021.10.29

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

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NAME:	AUBREY GONSALVES
DESIGNATION:	MANAGER
SIGNATURE:	Aubrey Goncalves
DATE:	24/03/2022

