



**Environmental
Protection
Agency**

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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.:	20151120-TLLMO
Fee:	Small (C2) -US\$175 per year
Fees Paid	US\$175 – One Year (April, 2022 - March, 2023)

Addressee(s): Mr. Telford Layne
EE Eccles
East Bank Demerara
Georgetown.

Activity: Development and Operation of a Loam Mine

Mr. Telford Layne, 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 Loam Mine within the confines of designated Block: L-97/SMP/000 located at the Moblissa, Eastern Side of Soesdyke, Linden Highway, hereinafter referred to as the “Project”, in the manner indicated in the Renewed Application submitted on March 02, 2022, 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 # 20151120-TLLMO, issued on November 02, 2017 and expired on December 31, 2021.

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

1.0 GENERAL

- 1.1 Notify the Agency in writing and obtain its approval for **ANY** proposed changes in operation of the Loam Mine at least **fourteen (14) days before** making the change. The notification shall contain a **description of the proposed change in operation**. It is not necessary to make such a notification if **an application to vary** this permit has been made and the Application contains a description of the proposed change. In this condition '**change in operation**' means a change in the nature or functioning, or an extension, of the installation, which may have consequences for the environment, including but not limited to the following:
- i. Change in construction, structure, layout of the facility;
 - ii. Installation of new and/or changes to equipment, machine, apparatus, mechanism, system or technology serving the facility or operation;
 - iii. Any technology installed at the facility from which effluent may be discharged; and
 - iv. Any other circumstance prescribed by Regulation 20(3) of the Environmental Protection (Authorisations) Regulations.
- 1.2 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.
- 1.3 Maintain demarcated boundary limits for the mine sites and a non-extractable, vegetated buffer zone at least 100 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.
- 1.4 Maintain good housekeeping, sanitary and hygienic practices, and the aesthetic quality of your surroundings at all times.
- 1.5 Not undertake any development activity which may significantly affect the environment other than those activities covered by this Permit without prior approval by the EPA.

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 shall at all times be well protected and equipped with Personal Protective Equipment (PPE) relevant to the occupational tasks during operation. These Personal Protective Equipment (PPE) must include but not be limited to:
- i. Safety helmets;
 - ii. Protective respiratory devices
 - iii. Safety boots with ankle support;
 - iv. Gloves with reinforced palms and fingers; and
 - v. Safety goggles.
- 2.3 Prepare and maintain an employee log of distribution of Personal Protective Equipment.
- 2.4 Ensure all employees/third party contractors are aware of the Conditions of this Environmental Permit (Renewed) (20151120-TLLMO) and provide training on the requirements of the Permit and good environmental management practices.
- 2.5 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 Loam Mining operation.

3.0 ROADS

- 3.1 Utilise only one access road/trail to the loam mine from the main access road.
- 3.2 Maintain the mine access road leading to the mine Site. In the event that ruts/holes are developed, as a result to usage of the road to the mine, fill with suitable material (such as compacted fill), as much possible to reduce the potential for erosion.
- 3.3 Ensure the running surface of the road is crowned with a compacted layer and have good drainage on both sides to catch and direct water to local drainage system. In addition, the road should be wet as needed to meet ambient dust conditions.
- 3.4 Install adequate safety signs along roads informing users of dangerous bends, crossing of haul trucks, speed limits, etc.

4.0 VEGETATION CLEARING, TOP SOIL STRIPPING AND RECLAMATION

- 4.1 Ensure vegetative debris is incorporated and stored with top soil to keep active for reuse in reclamation. In addition, practical measures, such as growing of vegetation such as shrubs and grasses on stockpiles of topsoil should be employed to reduce erosion.
- 4.2 Where possible, topsoil should be placed directly onto an area being rehabilitated to reduce double handling of soil.
- 4.3 Stockpile topsoil in suitable storage sites, where reuse can be accomplished easily. Stockpiles should not be stored within 3 metres of natural vegetation boundary or mine face.
- 4.4 Limit as far as possible the disturbance of natural vegetation to areas that would allow for the safe exploitation of Loam Resource.
- 4.5 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, Loam and Laterite Mining.
 - 4.5.1 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 must include reduction of slopes to prevent landslides and/or erosion, and re-vegetation

5.0 BUFFER ZONES AND SITE ACCESS MANAGEMENT

- 5.1 Maintain demarcated boundary limits for the site claim. Ensure proper signage and security measures are in place 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 the Loam Mining pit and adjoining areas with different land uses to buffer noise and fugitive dust emissions.
- 5.3 Establish and maintain a vegetated buffer zone of 15 metres wide from the centre line of the access road to the edge of the pit.
- 5.4 Ensure to re-contour mined-out areas within your concession to address the effects such as erosion, wildlife movement, landslide and Occupational Health and Safety hazards.

- 5.5 Use benchmarks to determine depth achieved during mining operations.
- 5.6 Determine and demarcate the 'high' ground water depth. Conduct excavation to a depth that leaves 2 metres above the water table. No mining is allowed at or below the water table.
- 5.7 Ensure suitable buffers are in place to mitigate potential impacts to Farms and settlements that maybe located nearby.

6.0 WATER QUALITY MANAGEMENT

- 6.1 At all times, avoid water contamination from fuel, grease and waste oils.
- 6.2 Store overburden stockpiles away from drainage systems and beyond **200 meters** of away from any waterway, creek or drainage system.
- 6.3 Consider the weather pattern before initiating major earthworks e.g., road maintenance, topsoil excavation. Monitor areas of exposed soil during periods of heavy rainfall.
- 6.4 Conduct site clearing of any mine expansion panels in a gradual and phased manner to minimize sediment discharge.
- 6.5 No loam mining pit shall be operated 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.
- 6.6 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.
- 6.7 Design and maintain a well-established drainage network to limit surface run off into these sensitive water bodies.

7.0 BIODIVERSITY PROTECTION

- 7.1 Report any occurrences of illegal wildlife trapping and trading in the project area to the EPA and Guyana Wildlife Conservation and Management Commission.



- 7.2 Prohibit the hunting, trapping, trading and removal of wildlife that is found within the Mining Site by employees.
- 7.3 As practical as possible, avoid or minimise the creation of barriers that would impede the movement of wildlife or cause a threat to their migration.
- 7.4 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.

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 B [Night-time Limits (18:00 h – 06:00h)]
- 8.3 Ensure all significant noise-producing equipment, e.g., generators etc. are equipped with appropriate silencers or mufflers and/or are enclosed in suitable acoustic enclosures where necessary 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 Ensure to maintain a vegetative buffer around active Mine Site to aid with the control of dust and dust particles that are like 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 Ensure that all trucks transporting materials do not exceed the established speed limit of the roads so as to minimise dust generation on the road. Additionally, road should be soaked as needed 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 Maintain good sanitary and hygienic practices and the aesthetic quality of your surroundings at all times.
- 10.3 Dispose solid waste in a manner approved by the EPA and away from all mineral reserves allocated for mining and dwellings, or remove from site to an approved landfill.
- 10.4 Provide covered garbage receptacles at strategic locations, at the project site, which should be emptied, cleaned and maintained.
- 10.5 Dispose all solid waste in a solid waste pit.
- 10.6 Ensure that solid waste pits are 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.

- 10.7 Burning is prohibited at all time unless otherwise approved by the Environmental Protection Agency.
- 10.8 Construct a pit latrine 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 Comply with any directions given by the EPA from time-to-time in furtherance of the implementation of any international or other obligations for the environmental protection of Guyana.
- 11.2 Submit to the EPA, the **Environmental Annual Reports** on the status of the project, progress of the implementation of the monitoring activities and compliance with the conditions contained herein by **March 31** each year (Please see attached, the *Guidelines for the preparation of Environmental Annual Reports*).
- 11.3 Inform the Agency prior to or within **thirty (30) days** of any change of name or ownership of the operation.
- 11.4 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.
- 11.5 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.
- 11.6 Report to the Agency any non-compliances with the Environmental Permit:
 - 11.6.1 Within **twenty-four (24) hours** of the time the Holder of the Environmental Permit (Renewed) becomes aware of the non-compliance, the anticipated manner in which it may endanger human health or the environment.
 - 11.6.2 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.
 - 11.6.3 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.

- 11.7 Prepare and submit a detailed Reclamation Plan for approval six (6) months before the actual reclamation process commences.
- 11.8 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.

12.0 INSTITUTIONAL AUTHORITY/ LIABILITIES

- 12.1 The EPA reserves the right to review and/or amend the conditions and fees attached to this Permit, which also includes the review and/or amendment of Permit Fees in consideration of any changes in fee structure as determined by the Agency for projects of this nature.
- 12.2 The EPA shall have the right to cancel or suspend this Permit for breach of any of the terms and conditions contained herein.
- 12.3 The Permit Holder, His Servants, Agents and/or Sub-Contractors 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 s. 38 of 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.
- 12.4 This Environmental Permit (Renewed) is not the final consent; all relevant permission should be obtained from other regulatory bodies for continued operation.
- 12.5 The Permit Holder, his Servants and/or Agents shall be strictly liable for any loss or damage to the environment through any act caused intentionally or recklessly, through the adverse effect of any discharge or release, or cause to permit the entry of pollution, contaminant in any amount, concentration or level in excess of that prescribed by the regulations or stipulated by any environmental authorization which are attributed to the Project. S. 19(1) and (2) of the Environmental Protection Act, Cap. 20:05, Laws of Guyana.
- 12.6 The Permit Holder, his Servants and/or Agents shall be guilty of any offence in accordance with s. 39(1), (2), (3), (4) of the EP Act, Cap. 20:05, which states respectively – “every person who causes material or serious environmental harm by polluting the environment intentionally or recklessly and with the knowledge that material and/or serious

environmental harm will or might result is guilty of an offence and shall be liable to the penalties prescribed under the Act.”

- 12.7 The Permit Holder shall be liable to any gross negligence or wilful misconduct caused by the Permit Holder, his Servants and/ or Agents, to the marine environment, biodiversity, protected species and natural habitat.
- 12.8 The Permit Holder shall compensate any Party who suffers any loss or damage as a result of the attributed project. (Part V, s. 19(3)(e)) EP Act Cap. 20:05, Laws of Guyana.
- 12.9 Should the Permit Holder contravene or is likely to contravene any condition of this Permit, the Agency (EPA) may serve him an enforcement notice in accordance with s. 26 of the EP Act Cap. 20:05, Laws of Guyana.
- 12.10 Where it appears to the Agency (EPA) that the Permit Holder is engage in any activity that may pose serious threat to natural resources or serious pollution of the Environment or any damage to public health, issue to the Permit Holder a Prohibition Notice Order to immediately cease the offending activity. S. 27 EP Act, Cap. 20:05, Laws of Guyana.
- 12.11 This Environmental Permit (Renewed) is valid for the period stipulated herein **April, 2022 to March, 2023**.
- 12.12 This Environmental Permit (Renewed) shall remain valid until **March 31, 2023**, 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.
- 12.13 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 **October 31, 2022**.
- 12.14 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.

Environmental Permit (Renewed)- Ref. No. 20151120-TLLMO

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.

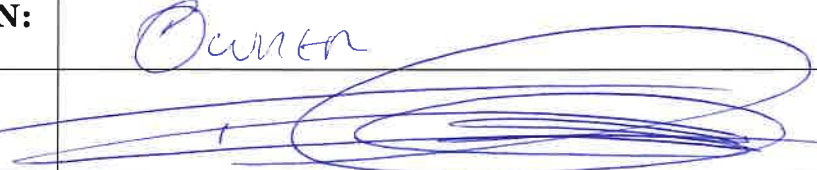
12.15 Failure to comply with the requirements of this Permit shall render the Permit Holder liable to prosecution and to civil penalties and/or injunctive reliefs prescribed under the Environmental Protection Act, Cap. 20:05, the Environmental Protection (Amendment) Act, 2005, and the Environmental Protection (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: 2022.04.12

I hereby accept the above terms and conditions upon which this Environmental 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.

NAME:	<u>LEOPOLD LAYNE</u>
DESIGNATION:	<u>Owner</u>
SIGNATURE:	
DATE:	<u>20th April 2022</u>

