



Environmental Protection Agency

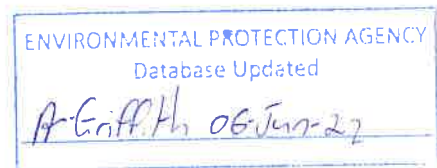
Ganges Street, Sophia,
Georgetown, GUYANA
Tel.: (592)-225-0506
Fax: (592) - 225- 5481
Email: epa@epaguyana.org
Website: <http://www.epaguyana.org>

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.:	20140930-WRWHO
Fee:	Medium (C2) – US\$ 4000 (5 years) i.e., US\$ 800 per year
Fees Paid	US\$4000: Five (5) years (May 2022 – April 2027)

Addressee(s): Mr. Wayne Heber
Proprietor
R and H Mining
13, 6th Avenue Bartica
Essequibo River.



Activity: Operation of Sand and Loam Mine

Mr Wayne Heber, trading and operating under the name, R and H Mining, 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 Sand and Loam Mine within Block R-95/MP/001, located at the Confluence of the Hubudebu River and Labba Creek, hereinafter referred to as the "Project", in the manner indicated in the Application submitted on September 30, 2014, subject to the terms and conditions set forth herein and any existing and forthcoming regulations made under the said Environmental Protection Act and/or any other applicable laws, best practices, guidelines and standards relevant to this project.

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

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- I. Changes 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 used or installed at the facility from which effluent may be emitted from; and
- IV. Any other variance prescribed by Regulation 20(3) of the Environmental Protection (Authorisations) Regulations.

- 1.2 Submit on or before **July 31, 2022** an **Environmental Management Plan** that captures any potential environmental impacts, human risks and feasible cost-effective measures to mitigate impacts so as to manage/reduce potential environmental impacts to biodiversity, water quality, air quality, and soil degradation to an acceptable level and a **Monitoring and Emergency Plan** and **Closure and Decommissioning Plan**.
- 1.3 The Environmental Management Plan required under subsection 1.2 will inform the revision and updating of applicable conditions as set forth below and inclusion of any other conditions as the Agency sees fit to ensure protection of the environment and prevention or mitigation of pollution/contamination.
- 1.4 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.
- 1.5 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.
- 1.6 Ensure that trucks are equipped with the necessary reflecting signage to warn the public of impending danger of parked/moving trucks on the public thoroughfare.
- 1.7 Provide adequate fire protection measures at the Project Site, in accordance with guidelines established by the Guyana Fire Service.

2.0 EMPLOYEES, OCCUPATIONAL HEALTH AND SAFETY

- 2.1 Adhere to the requirements of the **Occupational Safety and Health Act, Cap. 99:06, Laws of Guyana**.

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- 2.2 Provide employees with the necessary protective equipment to fit their job specification such as: hi-visibility vests, respirator, hard hats, gloves, and appropriate footwear and ensure appropriate utilisation of these gear. Prepare and maintain an employee log of distribution of Personal Protective Equipment.
- 2.3 Strictly ensure that no employee operates under unsafe conditions and prevent unstable mine faces so as to avoid the risks of collapse and subsidence of earth.
- 2.4 Provide well-equipped first-aid kit at the work site and ensure that functional communication and transportation systems are in place to respond to emergencies.
- 2.5 Ensure all employees/third party contractors are aware of the Conditions of this Environmental Permit (Renewed) and provide training on good environmental management practices. Prepare and maintain a training file for employees, which should be available upon Officers' request during Compliance Inspection.
- 2.6 Ensure proper signage and security measures to keep unauthorised persons from accessing restricted areas.

3.0 ROADS

- 3.1 Utilise only one access road/trail to the sand and loam mine from the main access road.
- 3.2 After construction, continue to 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 Design, construct and maintain the access road/trail so as to provide for good drainage and dust management. The running surface of the road should be 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.

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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 Sand and 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 Sand and 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.

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- 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 HAZARDOUS MATERIALS/WASTE MANAGEMENT

- 6.1 Adhere to the provisions of the **Environmental Protection (Hazardous Wastes Management) Regulations 2000.**
- 6.2 Establish and maintain a designated area for refuelling and oil changes. The designated area should be surfaced with an impervious material such as concrete and so designed as to allow for easy clean-up of accidental fuel and oil spills.
- 6.3 Waste oil generated on site should be stored in closed containers which should be labelled and disposed of in accordance with the Environmental Guidelines, 2011 for the 'Removal, Treatment and Disposal of Oily Sludge' (attached).
- 6.4 Refrain from draining fuel/lubricants including waste oils of any quantity from equipment onto the ground or into waterways.
- 6.5 Take the necessary precautionary measures during the transport and use of fuel and other chemicals/hazardous materials. In addition, implement a programme to ensure regular and preventative maintenance of machinery and equipment to prevent leaks and minimize air emissions and hydrocarbon releases.

7.0 WASTE MANAGEMENT

- 7.1 Comply with and adhere to the provisions of the **Environmental Protection (Litter Enforcement) Regulations, 2013.**
- 7.2 Maintain good sanitary and hygienic practices and the aesthetic quality of your surroundings at all times.
- 7.3 Promote proper solid waste management and disposal practices at your facility. Provide covered garbage receptacles at strategic locations, and ensure that all solid waste materials are appropriately stored until such time of

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disposal. Waste shall not be disposed of in or near the waterways. Further, adequately reuse, recycle and compost waste materials.

- 7.4 Ensure that garbage receptacles are placed in strategic locations within the project site. Have separate bins to facilitate the collection and sorting of waste according to liquid and solids; organic and inorganic; degradable and non-degradable.
- 7.5 The environs of the receptacles should be cleaned and maintained at all times, to prevent the fall or flow of garbage in the surrounding environment and/or attraction of rodents and other vermin.
- 7.6 Strictly prohibit all persons, both employees and general public, from disposing all garbage matter at mining site. Appropriate signage must be erected communicating such prohibition.
- 7.7 A Solid Waste Pit should be constructed at least 100 metres away from waterways and above the water table.
 - 7.6.1 Storm water should be diverted from the waste pit. Pits should be maintained and covered on a regular basis to avoid fly and rodent infestations as well as mal-odour from leachate.
 - 7.6.2 When the maximum capacity is reached, the solid waste pit should be covered with at least 0.3 metres of soil and a suitable site determined for another.
- 7.8 Construct and maintain a septic system on site at all times. The septic tank should be located 100 m away from waterways, within 1.5 m of a building or property boundary and should be accessible for cleaning and de-sludging. Any modification to the Septic tanks must be in accordance with the Guyana National Bureau of Standards (GNBS) *Code of Practice for the Design and Construction of Septic Tanks and Associated Secondary Treatment and Disposal Systems*.

8.0 AIR QUALITY MANAGEMENT

- 8.1 Comply with the provisions of the **Environmental Protection (Air Quality) Regulations, 2000**.
- 8.2 Operate and service all mechanical equipment in accordance with manufacturer's specifications at all times. Additionally, ensure that

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mechanical equipment and vehicles are regularly maintained and work at their optimal levels to minimise atmospheric emissions.

8.3 Employ dust suppression methods such as watering, erecting dust screens/fences to control dust emissions from material stockpiles and other components that would generate dust.

8.4 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.

8.5 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.

9.0 NOISE QUALITY MANAGEMENT

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

9.2 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)]

9.3 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.

9.4 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.

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10.0 BIODIVERSITY PROTECTION

- 10.1 Report any occurrences of illegal wildlife trapping and trading in the project area to the EPA and Guyana Wildlife Conservation and Management Commission.
- 10.2 Prohibit the hunting, trapping, trading and removal of wildlife that is found within the Mining Site by employees.
- 10.3 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.
- 10.4 Ensure that no mining activities are carried-out in areas that are sensitive to Mining such Wetlands, Swamps, Protected species Habitat, etc.
- 10.5 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.

11.0 COMPLIANCE MONITORING AND REPORTING

- 11.1 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.
- 11.2 Monitor the implementation of the conditions of this Permit, insofar as they involve adherence by your employees and all third parties under your direction.
- 11.3 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** every year (Please see attached, the *Guidelines for the preparation of Environmental Annual Reports*).
- 11.4 Submit to the EPA, the Mining License/Block Description from GGMC within **one (1) month** from the issuance of the finalised Permit.
- 11.5 Inform the Agency prior to or within **30 days** of any change of name or ownership of the operation.
- 11.6 Notify the Agency within **21 days** in event of death, bankruptcy, liquidation or receivership of the Permit Holder or if the Company becomes a party to an amalgamation.
- 11.7 Notify the EPA within **sixty (60) minutes** of the occurrence of any environmental emergencies such as a sudden onset disaster, accident, natural, technological or

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human induced factors that cause or threaten to cause severe environmental damage as well as harm to human health or livelihood.

11.8 Report to the Agency of non-compliance with the Environmental Permit:

- 11.8.1 Within **twenty-four (24) hours** of the time the Holder of the Environmental Permit becomes aware of the non-compliance, the anticipated manner in which it may endanger human health or the environment.
- 11.8.2 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.
- 11.8.3 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.
- 11.9 Report all occurrences of illegal wildlife trapping and trading to the Guyana Wildlife Conservation and Management Commission and EPA. The Permit Holder shall discourage the targeting, hunting and use of wildlife by its staff.

12.0 INSTITUTIONAL AUTHORITY AND LIABILITIES

- 12.1 The EPA reserves the right to conduct regular inspections of the Permit Holder's operation as part of its monitoring and enforcement requirements under the Environmental Protection Act, Cap. 20:05, Laws of Guyana and its regulations.
- 12.2 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.
- 12.3 The EPA shall have the right to cancel or suspend this Permit for breach of any of the terms and conditions contained herein.
- 12.4 The Permit Holder 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 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

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doing so.

- 12.5 This Environmental Permit (Renewed) is not the final consent; all relevant permissions should be obtained from other regulatory bodies for continued operation.
- 12.6 The Permit Holder 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 or permit the entry of pollution, contaminant in any amount, concentration or level in excess of that prescribed by the regulations or stipulated by any Operation Permit which are attributed to the Project, s. 19 (1)(2) of the Environmental Protection Act, Cap. 20:05, Laws of Guyana.
- 12.7 The Permit Holder shall compensate any Party who suffers any loss or damage as a result of the attributed Project (s. 19 (3) (e)) of the Environmental Protection Act, Cap. 20:05, Laws of Guyana).
- 12.8 The Permit Holder shall be responsible for the payment of all costs related to the assessment of damage and costs for the independent assessor(s).
- 12.9 The Agency (EPA) shall notify the Permit Holder immediately of any written claim or notice sent by any complainant seeking loss or damage for negligence as a result of the Permit Holder lack of due care and diligence.
- 12.10 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 biodiversity, protected species and natural habitat.
- 12.11 Where it appears to the Agency that the Permit Holder is engaged 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 of the Environmental Protection Act, Cap. 20:05, Laws of Guyana.
- 12.12 The Permit is effective for the period stipulated herein **May 2022 to April 2027**.
- 12.13 This Environmental Permit (Renewed) shall remain valid until **April 30, 2027**, unless otherwise suspended, modified, cancelled or varied in accordance with the provisions of this Permit or the Environmental Protection Act, Cap. 20:05, Laws of Guyana and its regulations, including the Environmental Protection (Authorisation) Regulations, 2000.

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- 12.14 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, 2026**.
- 12.15 Any late submission of renewal application (s) after the specified date as stated above, 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 (\$2000.00) per day** for every day late, until such renewal application is submitted to the Agency, without prejudice to any other rights of the Permit Holder in connection therewith.
- 12.16 Failure to comply with the requirements of this Permit shall render the Permit Holder liable to prosecution and to civil penalties and/or injunctive relief prescribed under the Environmental Protection Act, Cap. 20:05, Laws of Guyana, 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: 2022.05.03



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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 and any existing and forthcoming regulations, best practices, guidelines and standards made under this Act.

NAME	WAYNE HESER
DESIGNATION	OWNER
SIGNATURE	WH
DATE	03/06/2022