



Environmental Protection Agency

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Operation 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.:	20130610-BNSMO
Fee:	Small (C1) - US\$875 (5 years), i.e. US\$175 per year
Fee Paid	US\$ 875 (June, 2019 to May, 2024)

Addressee(s): Mr Bhojnarine Narine
B.S. Narine and Son Investment
1, Perseverance
Essequibo Coast

Activity: Operation of a Sand Mine

Mr Bhojnarine Narine, trading and operating under the name B.S. Narine and Son Investment, 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 located at Adventure, Essequibo Coast, hereinafter referred to as the "Project", in the manner indicated in the Renewal Application submitted on April 10, 2019, subject to the terms and conditions set forth herein and any existing and any forthcoming regulations made under the said Environmental Protection Act and/or any other applicable laws, best practices, guidelines and standards relevant to this project.

This is a Renewal of the Operation Permit, Reference # 20130610-BNSMO, issued on March 31, 2014, and expired on January 31, 2019. This Operation Permit-Renewed is issued pursuant to the Environmental Protection (Authorisations) Regulations, 2000.

Terms and Conditions for Operation to be adhered to by the Permit Holder:

Operation Permit (Renewed) - Ref. No. 20130610-BNSMO

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1.0 OPERATION

- 1.1 Notify the Agency in writing and obtain its approval for **ANY** proposed changes in operation of the Sand Mining Operation at least **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; and
 - iii. Any technology installed at the facility from which effluent may be discharged.
- 1.2 Ensure that all areas that are mined are re-contoured so as to address the effects of erosion, landslide and Occupational Health and Safety.
- 1.3 Ensure that all trucks and other vehicles used for the transportation of sand leave the mine adequately covered, so that there is no escape of airborne particles.
- 1.4 At all times, operate the Sand Mine in such a manner that will result in minimal impact on public health and the environment.
- 1.5 Adhere to the terms and conditions outlined in sections **5.0, 6.0 and 7.0 of the GGMC Draft Code of Practice for Sand and Saprolite Mining** at all times.

2.0 EMPLOYEES

- 2.1 Adhere to the requirements of **the Occupational Safety and Health Act, Cap. 99:01, Laws of Guyana**.
- 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 gears. Prepare and maintain an employee log of distribution of Personal Protective Equipment.
- 2.3 Provide first aid at the work site and ensure that communication and

Operation Permit (Renewed) - Ref. No. 20130610-BNSMO

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transportation systems are in place to respond to emergencies.

- 2.4 Make all employees/third party contractors aware of the Conditions of the Operation Permit - Renewed and provide them with training in areas such as, safe use of heavy duty machinery and hazard communication and on good environmental management practices.
- 2.5 Prepare and maintain a training file for employees which should be available upon Officers' request during Compliance Inspection.

3.0 ROADS

- 3.1 Utilise only one access road/trail to the sand mine, from the main access road.
- 3.2 Contribute to the maintenance of the access road utilised for transportation to and from the Sand Mine.
- 3.3 Ensure that all measures such as grading, compacting, and wetting of the specified section of the access road are carried out as is necessary to maintain the road.
- 3.4 Provide adequate drainage to accommodate runoff from road to prevent flooding and ensure that it is not discharged directly into natural water ways.
- 3.5 Ensure that transportation to and from the operation do not impede Road traffic. 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.
- 3.6 Install adequate safety signs along roads informing users of dangerous bends, crossing of haul trucks, speed limits, etc.

4.0 BUFFER ZONES AND SITE ACCESS MANAGEMENT

- 4.1 Maintain demarcated boundary limits for the site claim. Ensure proper signage and security measures to keep unauthorised persons from accessing restricted and high-risk areas.
- 4.2 Maintain a non-extractable vegetated buffer zone at least 20 m in width as follows:
 - (i) Between the mine site and contiguous area used for different land-use activities.
 - (ii) Around the mine site.
 - (iii) Around the property boundary.

Operation Permit (Renewed) - Ref. No. 20130610-BNSMO

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.

(iv) Around any water source/spring located on the property.

- 4.3 Use benchmarks to determine depth achieved during mining operations.
- 4.4 Determine and demarcate the 'high' ground water depth. Conduct excavation to a depth that leaves two (2) m above the water table. No mining is allowed at or below the water table.
- 4.5 Ensure that all reasonable and practical measures are taken to safe-guard any water source/spring intended for use by the community.
- 4.6 Maintain a vegetative buffer around the property boundary, to control and reduce the release of fugitive dust from escaping into surrounding areas.

5.0 VEGETATION CLEARING AND TOP SOIL STRIPPING

- 5.1 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.
- 5.2 Where possible, topsoil should be placed directly onto an area being rehabilitated to reduce double handling of soil.
- 5.3 Stockpile topsoil in suitable storage sites, where reuse can be accomplished easily.
- 5.4 Ensure that topsoil and overburden piles are adequately located, designed, managed and reutilised for vegetative and rehabilitative works.
- 5.5 Take preventative measures to reduce water and wind erosion at the project site.
- 5.6 Be obligated to restore or rehabilitate the environment due to impacts resulting from any breach of the conditions of this Permit.
- 5.7 Conduct reclamation activities at mined out sites/pits, in accordance with the stipulations of the Environmental Codes of Practice for Sand and Loam Mining (*Guyana Geology and Mines Commission, Environmental Management Codes of Practice 2010, Mining Amendment Regulations, 2005*).
- 5.8 Not store top soil (overburden) within three metres (3m) 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.

Operation Permit (Renewed) - Ref. No. 20130610-BNSMO

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- 5.9 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.

6.0 AIR QUALITY MANAGEMENT

- 6.1 Adhere to the provisions of the **Environmental Protection (Air Quality) Regulations 2000**.
- 6.2 Ensure all significant noise-producing equipment, 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 the Guyana National Bureau of Standards (GNBS) requirements.
- 6.3 Operate all mechanical equipment in accordance with manufacturer's specifications. All mechanical equipment and vehicles should be regularly maintained and operated at their optimal levels to minimise atmospheric emissions.
- 6.4 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.

7.0 NOISE MANAGEMENT

- 7.1 Adhere to the provisions of the **Environmental Protection (Noise Management) Regulations 2000**.
- 7.2 Comply with Guyana National Bureau of Standards (GNBS) *Guidelines for Noise Emissions into the Environment*, not exceeding the limits below, at a distance of 15 metres (50 feet) from the source or property boundary, whichever is closer.

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

8.0 HAZARDOUS WASTE/ MATERIALS MANAGEMENT

Operation Permit (Renewed) - Ref. No. 20130610-BNSMO

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.

8.1 Adhere to the provisions of the Environmental Protection (Hazardous Wastes Management) Regulations, 2000).

- 8.1.1 There shall be no release of any pollutants (i.e. fuel, waste oil, wood preservatives) to ground water or soil from the permitted installation. Accidental release of pollutants to soil and ground water should be recorded and be reported **within twenty four (24) hrs** to the Agency for further investigation.
- 8.1.2 Not undertake any fueling activity inside of the pit.
- 8.1.3 Take the necessary precautionary measures such as the use of leak-proof and tightly closed containers during the transport of fuel to the operation.
- 8.1.4 Store waste oil in tightly covered drums or barrels to avoid spillage. It is an offence to drain fuel/lubricants including waste oils of any quantity from equipment onto the ground, drains or water ways.
- 8.1.5 Promote the reuse of waste oil, for example as a lubricant for equipment, where practical.
- 8.1.6 Ensure that oil/fuel containment absorbent materials are available for use in the event of an oil/fuel spill. Oily rags, filters and oil containers should be stored in labelled containers.
- 8.1.7 Where applicable, prepare and submit to the Agency no later than **forty-five (45) days** after the end of the operating year, a report relating to the activities for the previous year. The report shall include:
 - a) The identification information of the facility.
 - b) Type and quantities of hazardous waste generated.
 - c) Data concerning off-site shipments of waste.
 - d) Any applied treatment standards.
 - e) A summary of any accidents that may have occurred and any action taken.
 - f) Any waste minimisation efforts undertaken by the generator.
 - g) Any other matter the Agency may require.

The Agency considers all materials listed in Schedules I and II of the Environmental Protection (Hazardous Wastes Management) Regulations, 2000, to be hazardous. Please see attached list of Hazardous Wastes to be controlled.

Operation Permit (Renewed) - Ref. No. 20130610-BNSMO

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9.0 WASTE MANAGEMENT

- 9.1 Adhere to the provisions of the **Environmental Protection (Litter Enforcement) Regulations, 2013.**
- 9.2 Maintain good housekeeping, sanitary and hygienic practices, and the aesthetic quality of your surroundings at all times.
- 9.3 Ensure effective management of recoverable materials and all waste generated by the project is in accordance with s. 19(1), (2) and (3) of the Environmental Protection Act, Cap 20:05.
- 9.4 Promote proper solid waste management and disposal practices in the operation. Waste shall not be disposed of in or near the waterways or Sand Mine. Reduction, reuse, and recycling of waste should be promoted. Garbage should be disposed of in a solid waste pit
- 9.5 Construct well Ventilated Pit latrine/s on site and maintain the environs both internally and externally in a hygienic manner.

7.6.1 The environs of the latrine should be kept clean, in a hygienic manner and maintained both internally and externally.

7.6.2 The latrine should be:

- Built with suitable materials such as hardwood or concrete materials and soil should be lined with at least 1.5 metres of clay/loam material to avoid leachate entering the ground water;
- Properly vented with a tall ventilation pipe located on the windward side;
- Fitted with a fly screen on top of the vent to prevent the passage of flies and mosquitoes; The meshed apertures (holes) of the fly screen must not exceed 1.5 millimeters, made with corrosion resistant material to withstand intense rainfall, high temperatures and strong sunlight;
- Positioned at least thirty (30) metres away from surface and ground water sources, creeks, wells or springs.
- Dug at least 0.6 metres above the average ground water table and at least four (4) metres away from any dwelling (such as camps, and any sleeping and living quarters, etc.).
- Easily reached during bad weather and will not cause odour.

Operation Permit (Renewed) - Ref. No. 20130610-BNSMO

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.

- Covered with at least 0.3 metres of soil when the maximum capacity is reached and a suitable site determined for another.

10.0 COMPLIANCE MONITORING AND REPORTING

- 10.1 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.
- 10.2 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.
- 10.3 Submit to the EPA, the **Environmental Annual Report** 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*).
- 10.4 Inform the Agency prior to or within **thirty (30) days** of any change of name or ownership of the operation.
- 10.5 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.
- 10.6 Notify the EPA within **twenty-four (24) hours** 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.
- 10.7 Report to the Agency of non-compliance with the **Operation Permit (Renewed)**:
 - 10.7.1 Within **twenty-four (24) hours** of the time the Holder of the Operation Permit becomes aware of the non-compliance, the anticipated manner in which it may endanger human health or the environment.
 - 10.7.2 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.
 - 10.7.3 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.
- 10.8 Prepare and submit a detailed **Reclamation Plan** for approval six (6) months before the actual reclamation process commences.

Operation Permit (Renewed) - Ref. No. 20130610-BNSMO

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.

- 10.9 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.

11.0 INSTITUTIONAL AUTHORITY/LIABILITIES

- 11.1 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, the Environmental Protection (Amendment) Act, 2005, and the Environmental Protection (Authorisations) Regulations, 2000.
- 11.2 The EPA reserves the right to review and/or amend the permit 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.
- 11.3 The EPA shall have the right to cancel or suspend this Permit for breach of any of the terms and conditions contained herein.
- 11.4 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 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.
- 11.5 The Permit Holder shall be strictly liable for 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 this environmental authorisation, as are attributed to projects of this nature and in accordance with section 19(1), (2), and (3) of the Environmental Protection Act, Cap. 20:05.
- 11.6 The Permit Holder shall be guilty of any offence in accordance with s. 39(1), (2), (3), (4) of the Environmental Protection 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.”
- 11.7 The Permit Holder shall be liable to any gross negligence or wilful misconduct caused by the Permit Holder, and/ or Agents, to the environment, biodiversity,

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protected species and natural habitat.

- 11.8 The Permit Holder shall compensate any Party who suffers any loss or damage as a result of the attributed project. See: s. 19(3)(e) of the Environmental Protection Act Cap. 20:05.
- 11.9 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's lack of due care and diligence.
- 11.10 Should the Permit Holder contravene or be likely to contravene any condition of this Permit, the Agency (EPA) may issue an enforcement notice to him, in accordance with s. 26 of the Environmental Protection Act Cap. 20:05.
- 11.11 Where it appears to the Agency (EPA) 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, the Agency may issue to the Permit Holder a Prohibition Notice, which may include an order to immediately cease the offending activity. S. 27 Environmental Protection Act, Cap. 20:05.
- 11.12 This Permit is effective for the period stipulated herein **June, 2019 to May, 2024**. This Operation Permit shall remain valid until **May 30, 2024 unless** otherwise cancelled, suspended, modified or varied 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 (Authorisation) Regulations, 2000.
- 11.13 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, 2013**.
- 11.14 Any late submission of renewal application(s) after the specified date as stated above, shall 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 (\$2,000.00) 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.
- 11.15 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 laws of Guyana.

Operation Permit (Renewed) - Ref. No. 20130610-BNSMO

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Signed by  on behalf of the Environmental Protection Agency.

for **Sig:** **Executive Director**
Dr Vincent Adams
Executive Director
Environmental Protection Agency

Date: June 11, 2019

I hereby accept the terms and conditions upon which this Operation Permit 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 existing or forthcoming regulations, best practices, guidelines and standards made under this Act.

NAME:	BHOJNARINE NARINE
DESIGNATION:	
SIGNATURE:	Bhojnarine Narine
DATE:	2019-06-11

