



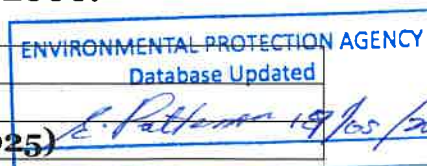
**Environmental  
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## Operation Permit

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.:	20200416-GYSBI
Fee:	Small (C1) - US\$ 100 per year
Fee Paid:	US\$ 500 (5 years – May 2020 to April 2025)
Addressee:	Guyana Shore Base Inc. Tract GIL2 & AM1 Rome East Bank Demerara
Activity:	Storage and Transportation of Non-hazardous Materials



Guyana Shore Base Inc., 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, for the Storage and Transportation of Non-hazardous Materials at Tract Gil2 & AM1 Rome, East Bank Demerara, hereinafter referred to as the “Project”, in a manner indicated in the Application for Environmental Authorisation submitted on April 16, 2020, and subject to the terms and conditions set forth herein and in any forthcoming regulations, guidelines, best practices and standards relevant to this project.

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

#### 1.0 STORAGE OF NON-HAZARDOUS MATERIALS

- 1.1 Notify the Agency in writing and obtain its approval for **ANY** proposed changes in the Storage and Transportation of Non-hazardous Materials **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:

- Changes in construction, structure, or layout of the facility and all associated buildings.
- Installation of new and/or changes to equipment, machine, apparatus, mechanism, system or technology serving the facility.

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- iii. Any technology used or installed at the facility from which effluent may be discharged.
- 1.2 Employees shall be equipped with Personal Protective Equipment (PPE) relevant to their occupational tasks at the operation. PPE should include but not necessarily be limited to:
- Safety helmets;
  - Protective respiratory devices that meet requirements of U.S OSHA Respiratory Protection Standard or local equivalent;
  - Safety boots with ankle support;
  - Gloves with reinforced palms and fingers;
  - Non-slag outer clothing appropriate to the prevailing weather conditions and high-visibility clothing; and
  - Eye protections; tightly fitted safety goggles.
- 1.3 The Storage Facility shall be clearly labeled, secured and well illuminated when not in use.
- 1.4 A spill containment kit shall be installed within the Storage Facility. The kit **must** contain absorbents for spilt materials.
- 1.5 Emergency exits **shall not** be obstructed by material storage containers.
- 1.6 Materials **shall not** be stored on damaged, or inadequately secured racking or on damaged pallets.
- 1.7 Park heavy machinery on an impervious base.
- 1.8 Not park machinery on the Government Reserve.
- 1.9 A clear line of sight shall be established before moving large packaged quantities of materials.
- 1.10 Training pertaining to the handling/management of materials shall be provided annually to staff at the Facility. Training Records shall be submitted with the Annual Report referred to within condition 6.6.
- 1.11 Materials shall be stored in accordance to the manufacturer's directions or Safety Data Sheet (SDS) instructions.
- 1.12 Adhere to the labelling for each material with regard to incompatibility with other materials stored within the Facility.
- 1.13 Flammable material shall be stored away from ignition sources. **'No Smoking'** signs shall be posted where such materials are handled and stored.

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- 1.14 All material containers and parcels shall be clearly labeled. These labels shall include the material name, manufacturer, and date received and/or prepared.
- 1.15 Material storage containers shall be inspected daily for signs of leakage or corrosion. Damaged containers must be replaced **immediately**.
- 1.16 Material **shall not** be stored in passageways including forklift truck routes, other vehicle routes and pedestrian walkways on site.
- 1.17 The Storage Facility's roof shall provide adequate rain protection and ventilation for heat and smoke in the event of fire.
- 1.18 The Storage Facility shall possess a natural ventilation system, for example ventilation through the openings between the double roofing constructions.
- 1.19 Materials stored in ton bags and totes must:
  - a) Be protected from UV rays;
  - b) Be covered to prevent exposure to dirt, dust, and moisture;
  - c) Not hang over the side of pallets used for stacking;
  - d) Not be repaired if damaged without removing all bags stacked on top of it;
  - e) Utilize the "pyramid" or "supported" stacking method where shelving/pallets are not in use.
  - **Pyramid Stacking** – each bag/tote above the first layer must sit on at least four (4) lower bags. Each layer is subsequently tiered inwards forming a pyramid structure.
  - **Supported Stacking** – stacked bags/ totes formed against two (2) retaining walls of sufficient strength.
- 1.20 Liquid materials stored within drums must:
  - a) Be placed within bunded storage to ensure any leaks or spills are immediately contained;
  - b) Be clearly marked with their contents, and any appropriate warning symbols;
  - c) Be regularly inspected to detect rust, leaks or other damage; and
  - d) Remain covered to protect the integrity of your materials.
- 1.21 Materials stored within cans must be tightly sealed and kept off the floor on pallets.
- 1.22 Fork lifts being used to lift and transport packaged materials must have rated capacity to support the full weight of packages.
- 1.23 Fork Lifts used for lifting packaged dry materials must be free of sharp edges and protrusions.

- 1.24 Secondary containment (bunded area) shall be established and maintained to minimize the spread/release of liquid material spillage occurring within the storage area. The secondary containment wall shall possess the following characteristics:
- i. Capacity equal to 110% of the volume of liquid stored within the largest storage container;
  - ii. Walls constructed of earth, steel, concrete or solid masonry. Cracks and seams shall be sealed to prevent leakage; and
  - iii. Liners/flooring constructed of asphalt or concrete and designed to withstand foreseeable loading conditions.
- 1.25 Establish and maintain a register of the quantities of materials stored onsite. The registered information shall be submitted to the Agency as part of the required **Annual Report** referred to within condition 6.6.
- 1.26 An Emergency Response Procedure/Plan (ERP) shall be established and maintained. The Procedure shall include, but not be limited to local emergency response authorities, notification of national and local authorities, coordination of clean-up activities and assessment of health hazards to humans and the environment.
- 1.27 The ERP shall be submitted to the EPA for approval **within three (3) months after receipt** of this Operation Permit.

## **2.0 TRANSPORTATION OF NON-HAZARDOUS MATERIALS**

- 2.1 All vehicles utilized for the transport of non-hazardous materials shall satisfy the requirements of the **Road Traffic and Maritime** Laws.
- 2.2 Evidence of requirements indicated at 2.1 above shall be submitted to the EPA with the **Annual Report**.
- 2.3 Non-hazardous materials shall be secured to or within the vehicles transporting same.
- 2.4 Liquid non-hazardous materials shall be transported in secured, enclosed vehicles **ONLY**.
- 2.5 A transportation Procedure/Protocol shall be established, maintained and submitted to the EPA for approval within **three (3) months of receipt** of this Operation Permit.

### **3.0 WATER QUALITY**

- 3.1 Adhere to the provisions of the **Environmental Protection (Water Quality) Regulations, 2000.**
- 3.2 Any material spill that occurs during handling or loading operations shall be **immediately** cleaned up, as guided by the respective Material Safety Data Sheet to prevent discharges into surface or groundwater. Spill materials shall be labeled and disposed of at an authorised facility.
- 3.3 All point-source discharges from the Non-hazardous Material Storage Facility is **strictly prohibited.**
- 3.4 Storm water shall be directed away from material storage area.
- 3.5 If spillage of material occurs and the storage area of the material is subject to washing, all wash water shall be directed into a sump/sample box on site.
- 3.6 Wash water from material storage area shall be discharged by an authorised hazardous waste facility.
- 3.7 A spill report shall be developed for documentation of the occurrence of all material spills on site and submitted to the EPA **within twenty-four (24) hours of the spill incident.**
- 3.8 Flooring, drains and collection sumps shall be constructed or sealed with protective coatings to prevent seepage, damage or deterioration resulting from contact with the stored or spilt fluids.
- 3.9 A trained operator or carrier shall at all times supervise, monitor and control the transfer of liquid materials to prevent overflow and spill during the entire period of transfer.
- 3.10 Materials **shall not** be stored in an area where it could potentially enter any waterways as a result of heavy rainfall or high winds.
- 3.11 Storm-water from roofs and clean paved areas shall be directed away from the material storage and handling area (s).
- 3.12 The drainage system shall be kept flowing and free of debris and vegetation. Scheduled cleaning of the drainage network and the immediate environment shall be conducted.
- 3.13 Drainage systems shall be maintained and capable of handling the probable maximum precipitation storm event.



- 3.14 Sediment control structures shall be installed such as, sediment traps and screens to prevent the outflow of sediments to surface water and the Demerara River.
- 3.15 Vehicle/ machinery maintenance activities shall NOT be conducted onsite so as to avoid soil and water contamination from fuel, grease, waste oils and other petroleum products.
- 3.16 Biodegradable/ water-based materials shall be used when cleaning the storage area.

#### **4.0 AIR QUALITY NOISE MANAGEMENT**

- 4.1 Adhere to the provisions of the **Environmental Protection (Air Quality) Regulations, 2000 and the Environmental Protection (Noise Management) Regulations, 2000.**
- 4.2 The operation shall be enclosed to minimize the impact of fugitive air emissions on the receiving environment.
- 4.3 The Best Available Technologies or measures; e.g. silencers, mufflers, enclosures or other appropriate devices, shall be utilized to mitigate adverse noise impacts from heavy machinery and generators on the environment.
- 4.4 Comply with the Guyana National Bureau of Standards (GNBS) Guidelines for Noise Emission into the Environment at a distance of 15 m (50 ft) from the source or at the property boundary, whichever is closer.

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

- 4.5 Noise emissions shall be monitored annually during hours of operation; sample points shall be at least 50 ft from noise producing equipment. Keep records of all monitoring exercises and submit data to the Agency within the **Annual Report** or upon request.
- 4.6 Containers holding dusty material shall not be filled beyond capacity. Continuous level monitoring shall be conducted to protect against overflow.
- 4.7 Good housekeeping practices shall be implemented to avoid or minimize the accumulation of dusty materials that have the potential to become airborne, and to prompt immediate clean-up of spilled or accumulated materials.
- 4.8 All equipment and machinery shall be placed upon foundations properly designed to ensure effective damping of vibrations.

- 4.9 Visual assessment of emissions shall be done frequently during the working day. This shall be recorded on a reporting form and submitted to the EPA in the annual report. Remedial action shall be taken **immediately** in the case of abnormal emissions.
- 4.10 All equipment e.g. generators, forklifts, etc capable of causing, or preventing, emissions shall be maintained in accordance with the manufacturer's instructions. An annual maintenance schedule shall be submitted with the annual report.
- 4.11 Comply with the *World Health Organisation (WHO) Air Quality Guidelines for Particulate Matter in the Environment*, not exceeding the limits below:

**PM<sub>2.5</sub>:** 10 µg/m<sup>3</sup> annual mean  
25 µg/m<sup>3</sup> 24-hour mean

**PM<sub>10</sub>:** 20 µg/m<sup>3</sup> annual mean  
50 µg/m<sup>3</sup> 24-hour mean

- 4.12 Air Quality Monitoring of condition 4.10 shall be conducted on an annual basis. Proposed sample points should be submitted to the EPA for approval prior to monitoring and a monitoring report should be submitted to the Agency as part submission of the required annual report referred Compliance Monitoring and Reporting. The Agency reserves the right to request additional monitoring upon review of the presented report.
- 4.13 Idling of equipment or vehicles shall be limited, as far as practical and all equipment or vehicles should be switched off when not in use.
- 4.14 The Best Available Technologies or measures shall be utilized to prevent or minimize airborne dust emissions during loading, unloading, handling, transferring or storing of raw materials.
- 4.15 Complaints of excessive noise, dust and vibrations stakeholders shall be recorded, investigated and addressed promptly. Records of complaint investigation shall be submitted to the EPA **within twenty-four (24) hours of investigation**.
- 4.16 In the event of equipment malfunction or **inefficiencies** which may result in visible emissions to air or, in the event of malfunction leads to abnormal emissions, the operator shall:
- investigate and undertake remedial action **immediately**;
  - adjust the process or activity to minimize those emissions; and
  - record the events and actions taken. This shall be submitted in the annual report.

## **5.0 WASTE MANAGEMENT**

- 5.1 In accordance with the **Environmental Protection (Litter Enforcement) Regulations 2013**, promote good sanitation and solid waste disposal practices on site. Place covered garbage receptacles, each on an impervious base and at a strategic

location, within and outside the storage facility.

- 5.2 Waste material **shall not** be burnt on site. Dispose of solid waste at an EPA authorised Solid Waste Disposal Site.
- 5.3 Good house-keeping, sanitary, and hygienic practices shall be maintained at all times. The Facility's surroundings shall be kept free of vegetation and litter.
- 5.4 Promote waste minimization and the reuse and/or recycling of waste and other materials where practical.
- 5.5 Solid waste receptacles shall be secured when not in use.
- 5.6 Waste containers shall not be filled with washout water or any other liquid.
- 5.7 Waste storage containers shall be regularly inspected, repaired, and/or replaced.
- 5.8 Wastes such as hazardous wastes, appliances, fluorescent lamps, pesticides, etc. should not be disposed of in solid waste containers
- 5.9 Use all of a product/ material before disposing of the container.
- 5.10 Waste collection areas shall be kept clean. Dry methods shall be used when cleaning around waste handling and disposal areas (e.g. sweeping, use of absorbents).
- 5.11 In the event that waste oil (recovered from servicing of generator) or fuel is stored on site, it shall be stored in a covered, bunded area to minimize adverse impacts to the environment in the event of spillage. The bunded area must be labeled and must be able to provide containment for the maximum volume of waste oil on site.
- 5.12 All waste oil containers shall be labelled with the following:
  - i. The words "Waste Oil or "Used oil"
  - ii. Beginning accumulation date
- 5.13 Treatment and disposal of waste oil shall be conducted by an authorised hazardous waste treatment facility.

## **6.0 COMPLIANCE MONITORING AND REPORTING**

- 6.1 Notify the Environmental Protection Agency **within twenty-four (24) hours** of the occurrence of any environmental emergencies (e.g. oil spills, hazardous materials/wastes, materials 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).
- 6.2 Make all employees, and third parties under your direction, aware of the conditions of the Environmental Authorisation and provide training on good environmental



practices.

- 6.3 Monitor the implementation of the conditions of this Permit, insofar as they involve adherence by your employees.
- 6.4 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.
- 6.5 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.
- 6.6 Submit Environmental **Annual Reports** to the EPA on the progress of the operation and compliance with the conditions under which this Permit was granted on or before **March 31** each year.
- 6.7 Report to the Agency of non-compliance with the Operation Permit:
  - I. Within **twenty-four (24) hours** of the time the Holder of the Environmental Authorisation for Operation becomes aware of the non-compliance, the anticipated manner in which it may endanger human health or the environment.
  - II. 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.
  - III. 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.
- 6.8 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.
- 6.9 Obtain approval from the Guyana Fire Service and provide fire protection measures such as fire extinguishers and sand buckets in accordance with this approval.
- 6.10 Ensure all firefighting equipment are maintained and serviced regularly.
- 6.11 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.

## **7.0 INSTITUTIONAL AUTHORITY/ LIABILITIES**

- 7.1 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, the Environmental Protection (Amendment) Act, 2005, and the Environmental Protection Regulations, 2000.

- 7.2 The EPA reserves the right to review/amend the conditions attached to this Permit which also includes the review and/or amendment of permit fees in consideration of any changes in fee schedule as determined by the Agency for projects of this nature.
- 7.3 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 doing so.
- 7.4 The EPA shall have the right to cancel or suspend this Permit for breach of any of the terms and conditions contained herein.
- 7.5 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 any environmental authorisation which are attributed to any Project. In accordance with section 19(1), (2), and (3) of the Environmental Protection Act, Cap. 20:05, Laws of Guyana.
- 7.6 The Permit Holder 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.”
- 7.7 The Permit Holder shall be liable to any gross negligence or willful misconduct caused by the Permit Holder, his Servants and/or Agents, to the marine or terrestrial environment, biodiversity, protected species and natural habitat with respect to any release or discharge, spill, contaminant fluids, oil or lubricants from the fuel storage facility.
- 7.8 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.
- 7.9 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).
- 7.10 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.

- 7.11 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 Environmental Protection Act, Cap. 20:05, Laws of Guyana.
- 7.12 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, 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, Laws of Guyana.
- 7.13 The Permit Holder is obligated to ensure that the Chemical Storage Facility is permitted by other relevant authorities.
- 7.14 The Permit is effective for the period stipulated herein **May 2020 to April 2025**.
- 7.15 This Operation Permit shall remain valid until **April 30, 2025**, unless otherwise suspended, cancelled, modified or varied in accordance with the provisions of this Permit or the Environmental Protection Act, Cap. 20:05, the Environmental Protection (Amendment) Act, 2005, and the Environmental Protection (Authorisations) Regulations, 2000.
- 7.16 This Permit must be renewed by submitting a completed *Application Form for Environmental Authorisation* (Operation Permit) to the Agency at least six months before this Permit expires, that is, no later than **October 31, 2024**.
- 7.17 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 (GY\$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.
- 7.18 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 laws of Guyana.

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Signed by *A. M. Vincent Adams* on behalf of the Environmental Protection Agency.  
**for Dr. Vincent Adams**  
**Executive Director**

Date

*May 15, 2020*

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

NAME	RABINDRANATH CHANDARPAL
DATE	MAY 15, 2020
SIGNATURE	<i>R. Chandarpal</i>
DESIGNATION	INFRASTRUCTURE MANAGER



*AC* *AmB*