



**Environmental  
Protection  
Agency**

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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.:	20150601- LNBSS
Fee:	Medium (C2) i.e. US\$ 800 per year
Fee Paid:	US 4,000 for 5 years (January, 2020 to December, 2024)
Addressee:	Mr. Lloyd Nolan Baharally Aruca Investment Kumaka, Aruca River, Region 1
Activity:	Operation of Fuel Storage Facility - Diesel and Gasoline ONLY

Mr. Lloyd Nolan Baharally, 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 Fuel Storage Facility (Diesel and Gasoline ONLY) at Kumaka, Santa Rosa, Moruca Region 1, hereinafter referred to as the "Project", in a manner indicated in the Application for Environmental Authorisations submitted on June 08, 2015, and subject to the terms and conditions set forth herein and any forthcoming regulations made under the said Environmental Protection Act and/or any other applicable laws, guidelines, best practices and standards relevant to this project.

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

### 1.0 OPERATION OF FUEL STORAGE FACILITY- DIESEL AND GASOLINE ONLY

- 1.1 Notify the Agency in writing and obtain its approval for **ANY** proposed changes in the Fuel Storage operation **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. Changes in construction, structure, or layout of the facility and all associated buildings.

ENVIRONMENTAL PROTECTION AGENCY  
Database Updated

As audited 29 Apr 2020

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**Operation Permit-Ref. 20150601- LNBSS**

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- ii. Installation of new and/or changes to equipment, machine, apparatus, mechanism, system or technology serving the facility.
  - iii. Any technology used or installed at the facility from which effluent may be discharged.
- 1.2 Adopt and comply with the National Standard "Guidance for the Design, Construction, Modification, and Maintenance of Petrol Filling Stations" and any forthcoming code of practice/guidelines pertaining to the operation of fuel storage.
  - 1.3 Fuel shall be stored above ground, in a cool, dry place and away from ignition sources. **'No Smoking'** signs shall be posted where fuel is handled or stored.
  - 1.4 Submit the Operation and Maintenance Manual to the Agency **within three (3) months of receipt** of Operation Permit, for review and approval.
  - 1.5 A register of the quantities of Fuel shall be established and maintained on site. Registered information shall be submitted to the Agency as part submission of the required **Annual Report** referred to at Monitoring and Compliance.
  - 1.6 The fuel storage facility shall be provided with adequate fire prevention and control equipment. This may include a smoke detection and alarm system, access to fire extinguishers, fire hydrants or sprinkler systems as appropriate.
  - 1.7 Fuel shall be stored in sealed containers/tanks within a bunded area. Storage containers including drums or tanks shall be chemically inert, sealed and corrosion resistant.
  - 1.8 Fuel storage tank shall be located where it can be inspected externally for corrosion or leaks and suitably protected against corrosion for the duration of their operating life.
  - 1.9 Fuel storage tank shall be constructed using non-corrodible materials, specific cathodic protection, or protection coating (e.g. paints).
  - 1.10 Fuel storage tank shall be enclosed within a bunded area which shall provide secondary containment for at least 110% of the contents of largest storage tank. The bund shall be constructed with impervious material that is resistant to the hazardous materials stored within the bund.
  - 1.11 Bund walls shall be constructed of steel, reinforced concrete, reinforced masonry or other suitable material and shall be designed and constructed to be liquid-tight as well as capable of withstanding the hydrostatic pressure of the contained liquid when full.
  - 1.12 The bund shall be sealed and all piping must enter or exit the bund over the wall. Bunds shall provide total containment, and no part of the tank infrastructure (e.g.

dispenser, filling hoses and valves) shall protrude outside the bund.

- 1.13 Tanks shall be designed with overfill protection. Equipment shall be fitted with overfill protection. The overfill protection can consist of either an automatic shut off device or an audible or visible overfill alarm.
- 1.14 The safe fill level shall be clearly identified on the gauge and set at 90% to prevent overfilling. The tanks shall be fitted with an overflow system and any discharges shall be released into the bunded area.
- 1.15 Dispensing equipment shall have appropriate design and containment. Design shall be inclusive of suction, pressure or gravity systems.
- 1.16 Dispensing equipment shall be fitted with automatic shut off valves to prevent spills.
- 1.17 Install and maintain a sump under fuel dispensers to capture losses. Dispensers for above storage tanks should be stored inside the bund.
- 1.18 Pipe entries under the pump sumps shall be sealed to prevent fuel leakage into ground and surface water.
- 1.19 Fuel storage tank and pipeline layout shall minimize the need for bends, joints and underground pipelines. Where underground piping is required, double contained systems shall be installed for new pipelines. All pipe-work shall be constructed using galvanized steel or flexible metallic connectors that are corrosion resistant.
- 1.20 Conduct monthly inspections, maintenance and repairs of the fuel tanks, fittings and pipes in order to detect leaks, and/or spillage.
- 1.21 Install a vapour recovery systems where required. Vapour recovery systems prevent the emission of Volatile Organic Compounds (VOCs) displaced during filling or dispensing activities.
- 1.22 Install a 4ft x 6ft rolled-curved loading pad on the outer section of the containment bund to contain spills when delivery trucks are unloading and containers or equipment are being filled. Loading pad must be connected to a pipe with a valve that remains closed when not in use and connected to the containment bund which is connected to the oil-water separator.
- 1.23 A leak detection system shall be in place for all bulk storage fuel tank. At least two (2) of the following measures should be taken:
  1. Overflow alarms on tanks;
  2. Gauging system;
  3. Dipstick measurements;
  4. Sensors on walls of tanks or;
  5. Electric shut down buttons.



- 1.24 Employees shall be equipped with appropriate protective gear during operation. Employees shall at all times be well protected.

## **2.0 WATER QUALITY**

- 2.1 Comply with the **Environmental Protection (Water Quality) Regulations, 2000.**
- 2.2 **Prohibit** discharge from gasoline bulk storage room.
- 2.3 Discharges from the fuel bund (diesel) should flow through the oil-water separator(s) and should be in accordance with the Guyana National Bureau of Standards (GNBS) *Interim Guidelines for Industrial Effluent Discharge into the Environment*. The following are the allowable limits should not be exceeded:
- pH 5.0-9.0;
  - Temperature < 40 °C;
  - Total Suspended Solid (TSS) < 100 mg/L;
  - Oil and Grease < 10 mg/L;
  - Total Dissolved Solid (TDS) < 40 mg/L;
  - Total Petroleum Hydrocarbon (TPH) < 40 mg/L;
- 2.4 Monitor the parameters listed in **condition 2.3** on an annual basis at the point of discharge from the oil-water separators and submit the results to the Agency as a component of the Annual Environmental Report required in **condition 6.7**.
- 2.5 An emergency spill cleanup kit shall be maintained on site for response to potential spills. Kits should contain absorbent materials, drain seals and other appropriate tools for clean up. Oil spills should be cleaned-up by the best practicable means, to prevent runoff into the waterways.
- 2.6 Refrain from draining fuel/lubricants including waste oils of any quantity from equipment onto the ground or into waterways.
- 2.7 Monthly inspection of bund walls shall be conducted. Establish a maintenance schedule to ensure that they are functioning effectively.
- 2.8 Take the necessary precautionary measures during the transport of fuel to site, transfer, use, and handling onsite to prevent spillage.
- 2.9 Conduct refueling on an impervious base or implement the use of drip pans to prevent fuel contamination of soil/water.

### **3.0 AIR QUALITY AND NOISE MANAGEMENT**

- 3.1 Adhere to the provisions of the **Environmental Protection (Noise Management) Regulations, 2000** and the **Environmental Protection (Air Quality) Regulations, 2000**.
- 3.2 Comply with Guyana National Bureau of Standards (GNBS) *Guidelines for Noise Emissions into the Environment*. Sound levels from noise-making devices should not exceed the limits below, at a distance of 15 metres (50 ft) from the source or property boundary, whichever is closer.

Commercial Limits: **80 dB** during the daytime (06:00 h - 18:00 h)  
**65 dB** during the night-time (18:00 h - 06:00 h)

- 3.3 All significant noise-producing equipment, such as generators, shall be 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 Guyana National Bureau of Standards (GNBS) requirement.
- 3.4 Monitor any malfunction or breakdown leading to abnormal emissions promptly and adjust process operations until normal operations can be restored. Report all malfunctions to the Agency as a component of the Annual Environmental Report required in **condition 6.7**.
- 3.5 Generators shall be serviced according to manufacturer's specifications to ensure efficiency and reduce the level of noise produced. Maintenance activities of generators, machines or equipment should be scheduled on a regular basis to avoid inefficiencies and noxious emissions.
- 3.6 Generator shall be placed on foundations properly designed to ensure effective damping of vibrations.
- 3.7 Exhaust stack of the generator shall be of an appropriate height, 2 meters above the tallest building nearby, to minimise adverse fumes/soot impacts to the contiguous areas.

### **4.0 WASTE MANAGEMENT**

- 4.1 At all times utilise the best practicable means of handling, storing and disposing of all waste materials.
- 4.2 In accordance with the **Environmental Protection (Litter Enforcement) Regulations, 2013**, promote good sanitation and solid waste disposal practices on site; covered garbage receptacles must be placed at strategic locations at the facility. Waste must be collected and disposed of at an approved waste disposal facility.

- 4.3 Maintain a septic tank system on site. The septic tank should not be located 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*. If Portable toilets are utilised, ensure regular emptying of its content to avoid mal-odour or overflow.
- 4.4 Waste handling and disposal area shall be designed to contain spills. Place dumpsters or other waste receptacles on an impervious surface.
- 4.5 Waste collection areas shall be kept clean at all times. When cleaning around waste handling and disposal areas use dry methods when possible (e.g. sweeping, use of absorbents).
- 4.6 Non-hazardous wastes shall not be mixed with hazardous wastes.

#### **5.0 HAZARDOUS WASTE MANAGEMENT**

- 5.1 Adhere to the provisions of the **Environmental Protection (Hazardous Waste Management) Regulations 2000**.
- 5.2 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 must be submitted in electronic format acceptable to the Agency along with a hard copy which should be signed by the Permit Holder, and shall include:
  - i. The identification information of the facility.
  - ii. Type and quantities of hazardous waste generated.
  - iii. Data concerning off-site shipments of waste.
  - iv. Any applied treatment standards.
  - v. A summary of any accidents that may have occurred and any action taken.
  - vi. Any waste minimisation efforts undertaken by the generator.
  - vii. A pollution prevention plan for the facility.
  - viii. Any other matter the Agency may require.
- 5.3 In the event that waste oil (recovered from oil-water separator or from servicing of generators) is stored on site, it shall be stored in a covered, bunded area to minimise 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.
- 5.4 Dispose of all waste oil in accordance with the Environmental Guidelines for the 'Removal, Treatment and Disposal of Oily Sludge,' 2011 (attached), or reuse waste

**Operation Permit-Ref. 20150601- LNBSS**

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oil as lubricant for chainsaw or other equipment or machinery.

- 5.5 Oil or fuel contaminated absorbent materials shall be appropriately stored and disposed of by double wrapping in heavy duty garbage bags and dispose of at an approved waste disposal facility. Hazardous contaminated absorbent pads can be disposed of by an authorised Hazardous Waste Disposal company.
- 5.6 Hazardous wastes, such as appliances, fluorescent lamps, pesticides, etc. shall not be disposed of in solid waste containers.

**6.0 COMPLIANCE MONITORING AND REPORTING**

- 6.1 **The Emergency Response Plan and Spill Clean-up plan** shall be submitted to the Agency for review and approval within three (3) months of receipt of this Permit.
- 6.2 Notify the Environmental Protection Agency **within twenty-four (24) hours** of the occurrence of any environmental emergencies (e.g. oil spills, hazardous materials/wastes, chemicals 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).
- 6.3 Make all employees, and third parties under your direction, aware of the conditions of the Environmental Authorisation and provide training on good environmental practices.
- 6.4 Monitor the implementation of the conditions of this Permit, insofar as they involve adherence by your employees.
- 6.5 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.
- 6.6 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.
- 6.7 Maintain and submit to the Agency records of the type, composition and quantity of contaminant released (i.e. any solid, liquid, gas, odour, sound, vibration, radiation, heat or combination of any of them).
- 6.8 Submit **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.
- 6.9 Report to the Agency of non-compliance with the Operation Permit:



**Operation Permit-Ref. 20150601- LNBSS**

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- 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.
- 6.10 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.
- 6.11 Obtain approval from the Guyana Fire Service and provide fire protection measures such as fire extinguishers and sand buckets in accordance with this approval.
- 6.12 Ensure all firefighting equipment are maintained and serviced regularly.
- 6.13 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.

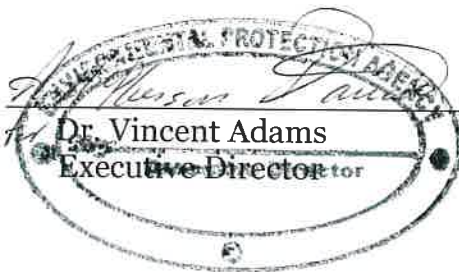
- 7.5 The Permit Holder shall be strictly liable for the adverse effect of any discharge or release, or cause or permit the entry of pollution, contaminant in any amount, concentration or level in excess of that prescribed by the regulations or stipulated by this environmental authorisation, as are attributed to projects of this nature and in accordance with section 19(1), (2), and (3) of the Environmental Protection Act, Cap. 20:05, 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. See: 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 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, 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, the Agency may issue to the Permit Holder a Prohibition Notice, which may include an order to immediately cease the offending activity. See: s. 27 of the Environmental Protection Act, Cap. 20:05, Laws of Guyana.

**Operation Permit-Ref. 20150601- LNBSS**

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- 7.13 The Permit Holder is obligated to ensure that the Fuel Storage Sites are permitted by other relevant authorities.
- 7.14 The Permit is effective for the period stipulated herein (**January 2020 to December 2024**).
- 7.15 This Operation Permit shall remain valid until **December 31, 2024**, 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 **June 30, 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 (\$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 Laws of Guyana, the Environmental Protection Regulations and other applicable laws of Guyana.

Signed by  
Agency.



on behalf of the Environmental Protection

Date

*January 10, 2020*

**Operation Permit-Ref. 20150601- LNBSS**

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I hereby accept the above terms and conditions upon which this Operational 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	ROMUALD ANTHONY BAHARALLY
DATE	2020/01/22
SIGNATURE	Romuald Baharally
DESIGNATION	Manager (ARUCA INVESTMENT)



*Handwritten signature or initials.*