



**Environmental  
Protection  
Agency**

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## **Environmental 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.:	20210722-CALPG
Fee:	Medium (C1) i.e. US\$ 500 Per Year
Fee Paid:	US\$ 2500 for (5) years (October, 2022- September, 2027)
Addressee:	Sharwan George Administrative Assistant Continental Agencies Limited Lots 18-20, Industrial Site Ruimveldt, Georgetown
Activity:	Operation of a Power Generation Facility Supported by Storage of Fuel and Lubricants



Continental Agencies Limited 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 Power Generation Facility Supported by Storage of Fuel and Lubricants at Lots 18-20, Industrial Site Ruimveldt, Georgetown hereinafter referred to as the "Project", in a manner indicated in the Application for Environmental Authorisation submitted on July 22, 2021, and subject to the terms and conditions set forth herein under the Environmental Protection Act, Cap. 20:05, existing and/or forthcoming regulations, guidelines, best practices, and standards relevant to this project.

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

### **1.0 GENERAL OPERATION**

- 1.1 Make an application to the Agency to vary this Permit in instances where it becomes necessary to:
- change the construction, operation, structure, or layout of the facility and all associated buildings;
  - change equipment, machine, apparatus, mechanism, system or technology serving the facility;
  - change the position and design of any outlet at the point or points of discharge of effluents; or
  - effect any other change outlined in Regulation 20(3) of the Environmental

Protection (Authorisations) Regulations.

- 1.2 An Operation and Maintenance Manual for the Project shall be developed and submitted to the EPA for review and approval by **January 31, 2023**. The Manual shall address all aspects of the on-going operation, including but not limited to the required maintenance and inspection schedule, loss monitoring/investigation procedures, emergency response and requirements for review of the Manual.
- 1.3 Emergency spill cleanup kits shall be maintained at the Project for response to potential spills. Kits shall contain absorbent materials, drain seals, and other appropriate tools for clean-up.
- 1.4 Fire prevention and control equipment shall be maintained in accordance with **Guyana Fire Service Approval**.
- 1.5 **The Permit Holder is required to submit to the EPA upon receipt, the requisite approvals from the Central Housing and Planning Authority (CH&PA) or any other authority with jurisdiction and oversight over the Project.**
- 1.6 Adhere to the requirements of the **Occupational Safety and Health Act, Cap. 99:01, Laws of Guyana**.

**2 POWER GENERATION**

- 2.1 The most recent copy of the inspection and maintenance report of the engines shall be submitted to the EPA by **January 31, 2023**.
- 2.2 **The following records shall be maintained for all power generation engines identified at the Project:**

- i. Megawatt thermal input
- ii. Calorific value
- iii. Fuel-oil consumption

- 2.3 The records outlined in **condition 2.2** shall be submitted to the EPA as a component of the **Annual Report**.

**2.0 AIR QUALITY MANAGEMENT**

- 2.1 Adhere to the provisions of the **Environmental Protection (Air Quality) Regulations, 2000**.
- 2.2 Conduct visual monitoring to determine the opacity of the emissions being released. Immediately respond to visible (opaque, grey to black) emissions that exceed six (6) minutes. Record the date and time of the incident and actions taken to resolve said air pollution episode. All records shall be available to the Agency upon request.



- 2.3 Ambient air quality monitoring shall be conducted at the boundary of the property to assess the levels of the following air pollutants, in accordance with the WHO Air Quality Guidelines 2005:

No.	Air Pollutant	Averaging Time	Maximum Permissible Level	Type of Monitoring
1.	Carbon Monoxide	1 h	35 ppm	Ambient
2.	Nitrogen Dioxide	1 h	200 µg/m <sup>3</sup>	Ambient
3.	Sulfur Dioxide	24 h	20 µg/m <sup>3</sup>	Ambient
4.	PM <sub>2.5</sub>	24 h	25 µg/m <sup>3</sup>	Ambient
5.	PM <sub>10</sub>	24h	50 µg/m <sup>3</sup>	Ambient

- 2.4 Conduct stack emission testing of all engines older than five (5) years to determine compliance with the requisite standards outlined below:

No.	Air Pollutant	Maximum Permissible Level	Type of Monitoring
1.	Carbon Monoxide	1000mg/m <sup>3</sup>	Stack
2.	Oxides of Nitrogen	350mg/m <sup>3</sup>	Stack
3.	Sulphuric Trioxide	100mg/m <sup>3</sup>	Stack
4.	Particulate Matter	100mg/m <sup>3</sup>	Stack

- 2.5 An Air quality monitoring plan shall be submitted to the EPA for approval by **January 31, 2023**. Air monitoring shall be conducted in accordance to the approved plan and the results shall be submitted to the Agency upon request

4.5.1 Monitoring shall be conducted during normal operations by trained personnel utilising calibrated equipment.

- 2.6 Calculate annual emissions of carbon dioxide and carbon dioxide equivalent from the operation of the engines. The recommended formula for the calculation of annual emissions of carbon dioxide is:

$$E = A \times EF \times (1-ER/100)$$

Where:

- E = emissions;
- A = activity rate;
- EF = emission factor, and
- ER =overall emission reduction efficiency, %

The Developer shall determine a methodology for the calculation of carbon dioxide equivalent which shall be submitted to the EPA for approval.

**The results of all calculations should be submitted in the Annual Report.**



### **3.0 WATER QUALITY MANAGEMENT**

- 3.1 Adhere to the provisions of the **Environmental Protection (Water Quality) Regulations, 2000.**
- 3.2 The oil- water separators at the Project shall be maintained and the GPS coordinate for the separator and its final discharge point shall be submitted to the EPA **by January 31, 2023.**
- 3.3 All effluent from the secondary containment at the Project shall flow through the oil-water separator and shall be in accordance with the Guyana National Bureau of Standards (GNBS) *Interim Guidelines for Industrial Effluent Discharge into the Environment*. The following allowable limits shall not be exceeded:

<b>Parameter</b>	<b>Maximum Concentration</b>	<b>Units</b>
Oil and Grease	Total Petroleum Hydrocarbon (TPH) < 40	mg/L
Thermal effluent	<40	°C

- 3.4 A water quality monitoring plan shall be submitted to the EPA for approval by **January 31, 2023.** Water Quality monitoring shall be conducted in accordance to the approved plan and the results shall be submitted to the Agency upon request.
- 6.4.1 Monitoring of the parameters above shall be conducted at the approved sampling point/s and the results analysed at a GNBS certified laboratory or trained personnel using calibrated equipment. Analyses shall be submitted to the Agency as part of the Annual Report.
- 6.4.2 Analytical results submitted to the EPA shall follow the format in keeping with the **“Guidelines for Submission of Water Quality Analytical Data (Wastewater)”**.
- 3.5 Fuel/lubricants including waste oils shall not be drained from the equipment onto the ground or into waterways.
- 3.6 Perimeter drains shall be maintained on-site, they must be adequately sloped to collect storm flow.

### **4.0 NOISE QUALITY MANAGEMENT**

- 4.1 Adhere to the provisions of the **Environmental Protection (Noise Management) Regulations, 2000.**

- 4.2 Noise emissions shall be monitored at the Project's boundary to determine compliance with **Guyana National Bureau of Standards (GNBS) Guidelines for Noise Emissions** into the Environment, not exceeding the **Industrial Limits** listed below:

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

- 4.3 A noise quality monitoring plan shall be submitted to the EPA for approval by **January 31, 2023**. Noise monitoring shall be conducted in accordance to the approved plan and the results shall be submitted to the Agency upon request.

4.3.1 Monitoring shall be conducted during normal operations by trained personnel utilising calibrated equipment.

- 4.4 All machines/equipment shall be serviced in accordance to the manufacturer's specification to ensure efficiency and reduce the level of noise produced. A summarised maintenance report shall be maintained on-site and made available to the EPA upon request.

- 4.5 All equipment and machinery shall be placed upon foundations properly designed to ensure effective damping of vibrations.

- 4.6 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.

## **5.0 FUEL HANDLING AND STORAGE**

- 5.1 Adopt and comply with the National SOP "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.
- 5.2 A register of the quantities of fuel and associated hazardous materials stored onsite shall be established and maintained. Registered information shall be maintained on site and made available to the EPA upon request.
- 5.3 Fuel shall at all times be stored above-ground and away from ignition sources. '**No Smoking**' signs shall be posted where fuel is handled or stored.
- 5.4 All secondary containment shall remain sealed and all piping shall enter or exit the containment over the wall. Secondary containment shall provide total containment, and no part of the tank infrastructure (e.g. dispenser, filling hoses and valves) shall protrude outside the containment.
- 5.5 Existing secondary containment around the fuel tanks shall be inspected for cracks and deterioration to ensure they are liquid tight to withstand hydrostatic pressure of any contained liquid when full. Inspection report shall be maintained on site and made



available to the EPA upon request.

- 5.6 In the event of a spill, contaminated wastewater from the secondary containment shall be pumped to a collection vessel and collected and treated by an EPA Authorised Hazardous Waste Disposal Facility.
- 5.7 All collection, treatment and disposal of wastewater from the secondary containment shall be documented on a Waste Manifest Form and made available to the EPA upon request.
- 5.8 Fuel storage tanks shall be visually inspected to verify their integrity. Inspection reports shall be maintained on site and made available to the EPA upon request.
- 5.9 Protection measures for fuel storage tanks such as painting and coating shall be maintained to minimise corrosion of fuel tanks.
- 5.10 Maintenance and/ or repair of fittings, pipes and hoses shall be in accordance with manufacturer's specifications. A summarised inspection report shall be kept and submitted to the EPA upon request.
- 5.11 Overfill protection shall be installed and maintained on all fuel tanks. This may include an automatic shut off device or an audible or visible overfill alarm.

#### **6.0 STORAGE OF CHEMICALS (LUBRICANTS AND GREASE)**

- 6.1 Lubricant Storage Areas shall be clearly labeled with "Danger, Lubricant Storage Area-Authorized Personnel Only" where applicable as a spill control measure.
- 6.2 Flammable materials shall be stored away from ignition sources. 'No Smoking' signs shall be posted where these materials are handled and stored.
- 6.3 Lubricants shall be stored in accordance with the manufacturer's directions or Material Safety Data Sheet (MSDS) instructions.
  - i. MSDS shall be readily available and easily accessible at all times at the Project.
- 6.4 Lubricant containers shall be clearly labelled in accordance with the Globally Harmonized System of Classification and Labelling. The following must be evident:
  - a. Signal Word;
  - b. GHS Symbols- (Hazard Pictograms);
  - c. Manufacturer Information;
  - d. Precautionary Statements/ First Aid;
  - e. Hazard Statements; and
  - f. Product Name or Identifiers.
- 6.5 Storage containers shall be inspected for signs of leakage or corrosion and damaged containers must be replaced immediately. Inspection reports must be maintained and signed by the appropriately qualified inspecting officer and his/her supervisor.



- 6.6 A register of the quantities of Lubricants stored at the Project shall be established and maintained. Registered information shall be maintained on-site and made available to the EPA upon request.

**7.0 HAZARDOUS WASTE (Waste Oil, Oily Rags, Sludge Etc.) MANAGEMENT**

- 7.1 Adhere to the provisions of the **Environmental Protection (Hazardous Waste Management) Regulation 2000.**

- 7.2 Hazardous waste shall be stored in containers appropriate for the waste stream. That is:

**a) Sealed Metal Containers**

- i. Solvents and Petroleum- based products;
- ii. Waste ink, Press-wash, Oil and Oily Absorbents

- 7.3 Hazardous waste containers shall be labelled with the following:

- i. The words "**Hazardous Waste**"
- ii. The type of waste
- iii. Beginning accumulation date i.e. date when the container was first placed in the Hazardous Waste Storage Area. Should the hazardous waste container be reused, the date hazardous waste was first placed in the container shall be recorded on the container.

- 7.4 Waste oil containers shall be labelled with the following:

- i. The words "**Waste Oil or 'Used oil'**"
- ii. Beginning accumulation date

- 7.5 Hazardous waste shall be stored in a covered, bunded area. This area shall include the following:

- i. Signage- "Hazardous Waste Storage Area"
- ii. Low traffic
- iii. No floor drains
- iv. Bunded area shall provide 110% containment of the largest volume stored therein.

- 7.6 Hazardous waste shall be treated and/ or disposed by an EPA authorised Hazardous Waste Disposal Facility. All hazardous waste treatment and disposal shall be documented on a Waste Manifest Form which must be submitted to the EPA as a component of the **Annual Report.**

## **8.0 WASTE MANAGEMENT**

- 8.1 In accordance with the **Environmental Protection (Litter Enforcement) Regulations, 2013**, promote good sanitation and solid waste disposal practices on site. Covered garbage receptacles shall be placed upon impervious base at strategic locations, both within and outside facility.
- 8.2 Burning solid waste is **strictly prohibited**. All solid waste shall be disposed by an EPA Authorised Waste Disposal Company.
- 8.3 Good house-keeping, sanitary, and hygienic practices shall be maintained at all times. The facility's drains and surroundings shall be kept free of vegetation and litter.
- 8.4 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).

## **9.0 COMPLIANCE MONITORING AND REPORTING**

- 9.1 Notify the Environmental Protection Agency **within one (1) hour** of the occurrence of any environmental emergencies (e.g. oil spills, hazardous materials/wastes spills, 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).
- 9.2 Monitor the implementation of the conditions of this Permit, insofar as they involve adherence by your employees and all third parties under your direction.
- 9.3 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.
- 9.4 Notify the Agency **within twenty-one (21) days** in event of death, bankruptcy, liquidation or receivership of the Permit Holder or if the Company becomes a party to an amalgamation.
- 9.5 Maintain and submit to the Agency records of the type, composition and quantity of contaminant released (i.e., any solid, liquid, gas, odor, sound, vibration, radiation, heat or combination of any of them).
- 9.6 Submit **Annual Reports** to the EPA on your compliance with this Environmental Permit on or before **March 31, each year**.
- 9.7 Report to the Agency any non-compliance(s) with the Environmental Permit:
- Within **twenty-four (24) hours** of the time the Holder of the Environmental Permit for Operation becomes aware of the non-compliance outlining the anticipated manner in which human health or the environment may be impacted.



- ii. Within **seventy-two (72) hours** of the time the Holder of the Environmental Permit becomes aware of the non-compliance, submit to the Agency a written report containing a description of the non-compliance, its cause, the period of non-compliance including exact dates and time and the anticipated time it is expected to continue if the non-compliance(s) has not been corrected.

9.8 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.

9.9 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.

#### **10.0 INSTITUTIONAL AUTHORITY/ LIABILITIES**

10.1 The Permit Holder shall be liable for any material environmental harm caused by polluting the environment, pursuant to s. 39 of the Environmental Protection Act, Cap. 20:05, Laws of Guyana.

10.2 The Permit Holder shall be liable for any serious environmental harm caused by polluting the environment, pursuant to s. 39 of the Environmental Protection Act, Cap. 20:05, Laws of Guyana.

10.3 The Permit Holder shall be liable for any activity that causes or is likely to cause pollution of the environment unless all reasonable and practicable measures are taken to prevent or minimize any resulting adverse effect, pursuant to s. 19 of the Environmental Protection Act, Cap. 20:05, Laws of Guyana.

10.4 The Permit Holder shall be liable for discharging, causing or permitting the entry into the environment, of any contaminant in any amount, concentration or level excess of that prescribed by the regulations or stipulated by this Environmental Permit, pursuant to s. 19 of the Environmental Protection Act, Cap. 20:05, Laws of Guyana.

10.5 The Permit Holder shall be liable to compensate any person who suffers any loss or damage as a result of contravening conditions 10.3 and 10.4 of this Environmental Permit, pursuant to s. 19 of the Environmental Protection Act, Cap. 20:05, Laws of Guyana.

10.6 The Permit Holder shall not be indemnified by the Agency for any activity that causes or is likely to cause pollution to the environment, resulting from adverse effects through the discharge, any contaminant in any amount, concentration, ultra hazardous substances, chemicals or otherwise, and shall be rendered liable to prosecution and to penalties prescribed under the Environmental Protection Act and Regulations.

10.7 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 environment, biodiversity,

protected species and natural habitat with respect to any release, discharge, or spill, of contaminant fluids, oil or lubricants.

- 10.8 Shall the Permit Holder contravene or be likely to contravene any condition of this Permit, the Agency (EPA) may serve on him an Enforcement Notice in accordance with Section 26 of the Environmental Protection Act, Cap. 20:05, Laws of Guyana.
- 10.9 Where it appears to the Agency that the Permit Holder is engaged in any activity that may pose a serious threat to natural resources or the environment, or a risk of serious pollution of the environment or any damage to public health, the EPA may issue to the Permit Holder a Prohibition Notice, which may order him to immediately cease the offending activity, in accordance with Section 27 of the Environmental Protection Act, Cap. 20:05, Laws of Guyana.
- 10.10 The EPA reserves the right to conduct regular inspections of the Permit Holder's activities as part of its monitoring and enforcement requirements under the Environmental Protection Act, Cap 20:05, and the Environmental Protection (Amendment) Act, 2005, and Environmental Protection (Authorisations) Regulations, 2000.
- 10.11 The Permit Holder, His Servants and/or Agents 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 Section 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.
- 10.12 The EPA has the right to modify, cancel or suspend this Permit for breach of any of the terms and conditions contained herein.
- 10.13 **This Environmental Permit is not the final consent; all relevant Permissions shall be obtained from other regulatory bodies for continued operation.**
- 10.14 This Environmental Permit is effective for the period stipulated herein; **October, 2022 to September, 2027.**
- 10.15 This Environmental Permit shall remain valid until **September 30, 2027**, unless otherwise suspended, cancelled, modified, or varied, in accordance with the provisions of this Permit or the Environmental Protection Act, Cap. 20:05, Laws of Guyana, Environmental Protection (Amendment) Act, 2005, and the Environmental Protection (Authorisations) Regulations, 2000.
- 10.16 This Permit must be renewed by submitting a completed Renewal Application Form for Environmental Authorisation to the Agency at least six months before this Permit expires, that is, no later than **March 31, 2027.**

**Environmental Permit Ref. No. 20210722-CALPG**

Issued under of the Environmental Protection Act, Cap 20:05, Laws of Guyana, the Environmental Protection (Amendment) Act, 2005, and the Environmental Protection (Authorisations) Regulations, 2000.

- 10.17 Any late submission of renewal application (s) after the specified date as stated above, may require the Permit Holder to pay, in addition to the renewal fee, a late penalty fee (accruing at the time such obligation was first owed for renewal) at a rate of **two thousand dollars (GY\$2000.00) per day for every business day late, until such renewal application is submitted to the Agency**, without prejudice to any other rights of the Permit Holder in connection therewith.
- 10.18 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 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.

Signed by Shauifah Razak on behalf of the Environmental Protection Agency.

Kemraj Parsram  
Executive Director

Date 2022.10.19

I hereby accept the above terms and conditions upon which this Environmental 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:	Sharwan George
DATE:	20th October, 2022
SIGNATURE:	S George
DESIGNATION:	Administrative Assistant



