



**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.: | 20150210- GOCLA |
| Fee: | Large (C2) i.e. US\$ 2000 per year |
| Fee Paid: | US \$ 10,000 for Five (5) years (June 2020- May 31 2025) |
| Addressee: | Guyoil Aviation Services Inc. Cheddi Jagan International Airport, Timehri East Bank Demerara |
| Activity: | Operation of Bulk Fuel Storage Facility – Aviation Fuel |

GUYOIL Aviation Services 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, to store fuel at Cheddi Jagan International Airport, Timehri, East Bank Demerara, hereinafter referred to as the “Project”, in a manner indicated in the Application for Renewal of Environmental Authorisation submitted on January 20, 2020, and subject to the terms and conditions set forth herein under the Environmental Protection Act and in any forthcoming regulations, guidelines, best practices and standards relevant to this project.

This is a Renewal of Operation Permit, Reference No. 20150210-GOCLA issued on June 01, 2015 and expired on May 31, 2020. This Operation Permit (Renewed) is issued pursuant to the Environmental Protection (Authorisations) Regulations, 2000.

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

1.0 OPERATION OF BULK FUEL STORAGE FACILITY

- 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:

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- i. Changes in construction, structure, or layout of the facility and all associated buildings.
 - 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 Develop and maintain an Operation and Maintenance Manual. The Manual shall address all aspects of on-going operation, including the required maintenance and inspection schedule, loss monitoring/investigation procedures, groundwater monitoring program, emergency response and requirements for review of the Manual.
- 1.4 Submit Operation and Maintenance Manual to the Agency **within three (3) months of receipt** of the Operation Permit (Renewed), for review and approval by the EPA.
- 1.5 Submit to the Agency an Environmental Management Plan (EMP) **within three (3) months of receipt** of the Operation Permit (Renewed), for review and approval by the EPA.
- 1.6 Establish and maintain a register of the types and quantities of fuel and associated hazardous materials held onsite. Registered information shall be submitted to the Agency as part submission of the required **Annual Report** referred to at Monitoring and Compliance.
- 1.7 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.
- 1.8 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.
- 1.9 Fuel storage tanks shall be located where they can be inspected externally for corrosion or leaks and suitably protected against corrosion for the duration of their operating life.
- 1.10 Fuel storage tanks shall be constructed using non-corrodible materials, specific cathodic protection, or protection coating (e.g. paints).
- 1.11 All tanks shall be properly tested by competent persons to verify its integrity. All tests should be documented including a clear indication of the scope, type and results of

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the tests. Submit results of tests to the Agency as part submission of the required **Annual Report** referred to under Monitoring and Compliance.

- 1.12 Above-ground storage tanks with capacity between 5,000 and 50,000 (US gallons) shall be inspected in accordance with specifications outlined below. The result shall be submitted to the Agency in the **Annual Report**.

P - Periodic Inspections by owner

E - Formal external inspection by certified inspector

I - Formal interior inspection by certified inspector

L - Leak test

| Above-Ground Storage Tank Size (US gallons) | Category 1 (Elevated tanks with CRDS* and those with an impermeable barrier such as concrete, steel, or synthetic liner) | Category 2 (Tanks sit on the ground without impermeable layer) |
|---|--|--|
| 0 – 1,100 | P | P |
| 1,101 - 5,000 | P | P, E (10), L(10) |
| 5,100 – 30,000 | P, E (20) | [P, E(5), L(10)] Or [P, E(10), I(20)] |
| 30,100 – 50,000 | P, E(20) | P, E (5) & L(5), I(15) |

*CRDS – Continuous Release Detection System

- 1.13 Fuel storage tanks shall be enclosed within a bunded area. The bunded area shall provide secondary containment sufficient to contain at least 110% of the volume of the largest storage facility. The bund shall be made from impervious material that is resistant to the hazardous materials stored within the bund.
- 1.14 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.
- 1.15 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.

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

- 1.16 Tanks and pipeline layout shall minimise the need for bends, joints and underground pipelines. Where underground piping is required, double contained systems shall be installed for new pipelines. All equipment shall be made from corrosion resistant material.
- 1.17 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.
- 1.18 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 bonded area.
- 1.19 Dispensing equipment shall have appropriate design and containment. Dispensing systems include suction, pressure or gravity systems.
- 1.20 Equip pressurized dispensing equipment with an automatic line leak detector and emergency shut-off valve at the base of each dispenser.
- 1.21 Dispensing equipment shall be fitted with automatic shut off valves to prevent spills.
- 1.22 Install and maintain a sump under any type of dispenser to capture losses. Dispensers for above storage tanks should be stored inside the bund.
- 1.23 Ensure that pipe entries under the pump sumps are sealed to prevent fuel leakage into ground and surface water.
- 1.24 All storage infrastructures must be fitted with protection against collision damage.
- 1.25 A leak detection system shall be in place for all bulk storage fuel tanks. At least two (2) of the following measures should be taken:
 - a. Overflow alarms on tanks;
 - b. Gauging system;
 - c. Dipstick measurements;
 - d. Sensors on walls of tanks or;
 - e. Electric shut down buttons.
- 1.26 Equip employees with appropriate protective gears during operation. Employees should at all times be well protected.
- 1.27 Install a Vapour Recovery System to prevent the emission of Volatile Organic Compounds (VOCs) displaced during filling or dispensing activities.
- 1.28 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

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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 and water separator.

- 1.29 Earthen berms or dikes shall be constructed with clay or other low permeability soil (at least 35% clay). A width to height ratio of 3:1 is required for the berm to ensure the dike strength and durability.

2.0 WATER QUALITY

- 2.1 Adhere to the provisions of the **Environmental Protection (Water Quality) Regulations, 2000**.
- 2.2 Establish a maintenance schedule for inspections to the bund walls to ensure that they are functioning effectively.
- 2.3 Conduct refueling on an impervious base or implement the use of drip pans to prevent fuel contamination of soil/water.
- 2.4 Install and maintain oil-water separator(s) at the final discharge point/s of drains influenced by the fuel tank containment areas or refueling areas through which all effluent must pass before final discharge.
- 2.5 Submit to the Agency **within three (3) months of receipt** of the Operation Permit, a map showing the location of final discharge points.
- 2.6 Discharges from the fuel bund(s) 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) < 40mg/L
- 2.7 Monitor the parameters listed in **condition 2.6** 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**.
- 2.8 Submit within **three (3) months of receipt** of the Operation Permit, a **groundwater monitoring plan** including the location and design of wells, for the EPA's review and approval.

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- 2.9 Subsequent to the EPA's approval of groundwater monitoring plan and within the first year of the Operation Permit (Renewed), install a minimum of **three (3)** groundwater monitoring wells around the storage facility. The wells shall be installed by a licensed well driller and be inspected to assess any potential leaks and impacts to groundwater.
- 2.10 Ground water samples shall be collected annually and analyze using the United States Environmental Protection Agency 8260 method. The analysis data shall be submitted to the EPA.
- 2.11 An Emergency Spill Cleanup kit shall be maintained on site at all times. 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.
- 2.12 Fuel/lubricants including waste oils of any quantity from equipment shall NOT be drained onto the ground or into waterways.
- 2.13 An interceptor drain shall be maintained around fuel storage facilities and shall be adequately sloped to collect storm flow.

3.0 AIR QUALITY AND NOISE MANAGEMENT

- 3.1 Adhere to the provisions of the **Environmental Protection (Noise Management) and Regulations, 2000 and 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 meters (50 ft.) from the source or property boundary, whichever is closer.

Residential Limits: **75 dB** during the daytime (06:00 h - 18:00 h)
60 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 enclosed in suitable acoustic enclosures to reduce noise levels impacting the surrounding environment to achieve compliance with Guyana National Bureau of Standards (GNBS) requirement.
- 3.4 Fuel shall be handled according to Best Available Technology to prevent the emission of offensive odors to the air outside the property boundary.
- 3.5 Malfunction or breakdown leading to abnormal emissions shall be immediately addressed and process operations adjusted until normal operations can be restored.

- 3.6 Generators and machines/equipment shall be serviced quarterly or in accordance to manufacture specifications, to ensure efficiency and reduce the level of noise produced and noxious emissions.
- 3.7 The exhaust stack of the generator shall be at least 2 meters in height above the tallest building nearby, to minimize 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 good house-keeping, sanitary, and hygienic practices and improvement in the aesthetic quality of your surroundings at all times. Regular cleaning of the surroundings and drains should be clean of vegetation and litter.
- 4.4 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 utilized, ensure regular emptying of its content to avoid mal-odor or overflow.

5.0 HAZARDOUS WASTE MANAGEMENT

- 5.1 Adhere to the provisions of the **Environmental Protection (Hazardous Waste Management) Regulation 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 Waste oil shall be disposed of at an authorised treatment and disposal facility.
- 5.5 Oil/fuel contaminated absorbent materials shall be stored in a bunded area and final disposal shall be at an authorized Hazardous Waste Disposal company.

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, 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).
- 6.2 Make all employees, and third parties under your direction, aware of the conditions of the Environmental Authorisation and provide training on good environmental practices. Submit details of training to the Agency as part submission of the required **Annual Report** referred to at Monitoring and Compliance.
- 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 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).
- 6.7 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.

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6.8 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 Authorization 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.

6.9 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.

6.10 Obtain approval from the Guyana Fire Service and provide fire protection measures such as fire extinguishers and sand buckets in accordance with this approval.

6.11 Ensure all firefighting equipment are maintained and serviced regularly.

6.12 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.

6.13 Prepare and submit to the Agency an **Environmental Management Plan (EMP)** for approval by the Agency within **three (3) months** after the issuance of the permit.

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, Laws of Guyana, 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

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Act, Cap. 20:05, Laws of Guyana, it is an offence to assault, obstruct or hinder an authorized 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 authorization 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) 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 engage 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

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Environmental Protection Act, Cap. 20:05, Laws of Guyana.

- 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 **June 2020 to May 31, 2025.**
- 7.15 This Operation Permit shall remain valid until **May 31, 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 Authorization* (Operation Permit) to the Agency at least six months before this Permit expires, that is, no later than **November 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 (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.

Signed by  on behalf of the Environmental Protection Agency.

Dr. Vincent Adams
Executive Director

Date

June 10, 2020

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I hereby accept the above terms and conditions upon which this Operational Permit (Renewed) 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 forthcoming regulations, guidelines, best practices and standards made under this Act.

| | |
|-------------|--|
| NAME | Sharanda Williams |
| DATE | 17 th June 2020 |
| SIGNATURE | Williams |
| DESIGNATION | Health, safety and Environmental Officer |



[Signature] S.W