

Project summary

ONDERNEEMING GAS STATION



March 2025

RIYADH MOHAMED KHAN | LOT 3, SECTION 'B', PLANTATION ONDERNEEMING,
ESSEQUIBO COAST

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1.0 Introduction

An application has been submitted to the Environmental Protection Agency (EPA) for the construction and operation of a Gas Station, which will include an adjoining lubricant store and office. The project will be located at Lot 3, Section 'B', Plantain Onderneeming, Essequibo Coast.

The project has received approvals from the Central Housing and Planning Authority, Guyana National Bureau of Standards (GNBS), Guyana Fire Service (GFS), Guyana Energy Agency (GEA), and the Annandale/Rivertown Neighbourhood Democratic Council (NDC).

Upon completion, staff will be employed across all businesses within the facility. While the Gas Station, lubricant store, and office will operate in tandem, their staff will have distinct roles and responsibilities.

The facility will operate Monday to Saturday, from 08:00 to 17:00, but will be closed on Sundays and public holidays. It will supply diesel and gasoline to the public, while the adjoining lubricant store will offer a variety of vehicle lubricants. The office will be responsible for administrative functions.

2.0 Project site

The Gas Station and Lubricant store will be constructed with an area of 30'x 30' (900 square feet) on a 102' x 120' land, leased from the Guyana Lands and Surveys Commission, renewable every five (5) years.

The fuel for its operation will be provided by the Guyana Oil Company Limited (GUYOIL). The Gas Station will have two (2) underground storage tanks and two (2) Fuel Dispensers/Pumps. Concrete drainage networks will be constructed around the facility.

The facility will be constructed in a developing area with a Bank to the north, a bond to the south, an empty lot to the east, and a supermarket to the west.

3.0 Project Description and Design

The project entails the following:

3.1 Construction of the Gas Station and Lubricant Store

A 30' x 30' building will be constructed to accommodate the Gas Station, an adjoining lubricant store, and an office. The structure will be elevated 21 feet above ground level and built with concrete walls and flooring, while the roof will be covered with galvanized zinc sheets.

The facility will include two fuel dispensers for gasoline and diesel, with underground storage tanks for each fuel type. Additionally, underground piping will connect the storage tanks to their respective pump stations. Other infrastructure will include toilet facilities, a septic tank, a designated parking space for employees, underground monitoring wells, drainage systems, and an oil-water separator.

A trestle will also be constructed to support water storage tanks with a total capacity of approximately 20,000 gallons of freshwater.

3.2. Operation of the Service Station

3.2.1. Fuel Dispenser/Pumps – Two fuel dispensers will be installed at the facility, one for dispensing gasoline and the other for diesel. The construction and operation of the pumps, along with all related facilities, will adhere to both local and international standards and guidelines for installation, maintenance, leak detection, and spill prevention.

3.2.2 Fuel Storage Tanks – The Gas Station will be supported by two (2) storage tanks with a capacity of 3000 gallons each, which will store diesel and gasoline, respectively. Both storage tanks will be metal, double-walled to provide an additional layer of protection against environmental contamination, leaks, and spills. There will be no above-ground tanks at this facility. The tanks also have corrosion control coating to prevent rusting and extend their lifespan. The design of the storage tanks will be guided by recommendations of the EPA and other local authorities.

3.2.3. Safety Equipment – The Gas Station will adhere to requirements from the Guyana Fire Service to ensure ‘Fire Safety’ and will be equipped with three (3) 4.5 kg Chemical Fire Extinguishers, two (2) smoke detectors, a suitable Fire Alarm system, Fire points, and fire buckets to prevent and respond to fire emergencies. There will also be the erection of ‘No-Smoking’ signs and suitable storage facilities for all items.

3.2.4 Environmental compliance - When the Environmental Permit is obtained, the operation will ensure that it is followed for the facility's development and operation. These include adhering to the Environmental Protection Regulations for Air Quality, Noise Management, Hazardous Waste, Water Quality, Litter Prevention, and Authorization. This also includes building and maintaining an interceptor drain, sound attenuation for the generator, and construction of an oil-water separator. The facility will have the necessary Spill Clean-up kit for on-site spill cleanup and fire safety measures.

3.2.5. Security measures – Surveillance cameras and security systems will be installed throughout the facility to monitor activities and deter theft, vandalism, and unauthorized access. Additionally, adequate lighting will be implemented to enhance visibility and security.

3.2.6. Staff and training – Before operations commence, staff members will undergo training in fire safety and environmental best practices, including emergency response procedures, proper handling of fuel pumps, and the use of spill kits.

3.2.7. Inspections and Maintenance – All storage tanks, fuel pumps, and equipment will undergo regular monitoring and maintenance in accordance with the established inspection and maintenance schedule.

4.0 Sources of Utility

- **Electricity** – The facility's electricity supply is provided by Guyana Power and Light (GPL). However, a 65 KVA generator will be installed as a backup power source.
- **Water** - Guyana Water Inc. (GWI) will provide the facility with a freshwater supply. Additionally, a 20,000-gallon water storage tank is available on-site. Water

pipes will be strategically installed to ensure efficient distribution throughout the facility.

- **Communication** – Cellular phone communication for the facility will be provided by One Communications, which will also supply internet services for the operation.

- **Waste Management** - The following types of waste are expected to be generated from the construction and operation of the Gas Station, Lubricant store, and Office.
 - **Construction waste:** packaging materials such as foam padding, plastic wraps, bricks, asphalt, scrap metal, glass, wood, roofing materials, etc.
 - **Solid waste** such as snack packaging, paper, food waste, wrappers, cups, plates, food boxes, paper towels, disposable items from the washroom, used parts, and packaging from Auto Lubricant and Office.
 - **Sewage/grey water** - from the toilet facilities and sinks.
 - **Hazardous waste** such as waste oil, lubricants, empty fuel containers, and cleaning solvents.

7.0 Non-technical explanation

The proposed project involves the construction and operation of a Gas Station, which will include an office and a lubricant store. A parking lot will be built to the north of the site for staff and customer use. Once completed, the gas station will store and sell gasoline and diesel for commercial purposes. The fuel will be stored in two underground tanks, each with a 3,000-gallon capacity, and connected to the fuel dispensing area by underground pipes. The fuel will be supplied by the Guyana Oil Company (GUYOIL), and trained pump attendants will operate the fuel dispensers. A canopy will cover the fuel dispensing area to meet environmental guidelines.

The facility's tanks and equipment will follow regulations set by bodies like the Environmental Protection Agency (EPA), the Guyana National Bureau of Standards

(GNBS), and the Guyana Energy Agency (GEA). The Gas Station is located in a mixed-use zone and is not situated in any ecologically sensitive areas. It will be built in a developing area, surrounded by a bank to the north, a bond to the south, an empty lot to the east, and a supermarket to the west. There are no sensitive receptors in the project’s vicinity.

The daily operation of the facility will employ about eight (8) permanent staff members, including a janitor, and operate from Monday to Saturday, from 08:00h to 17:00h. A 60 KVA generator will serve as backup power for the facility.

8.0 Duration of the Project

The project is expected to last approximately 5 years, subject to renewal of the lease.

9.0 Potential Environmental Impacts and Mitigation

Construction and operation of the Gas Station		
Potential impact	Activities	Mitigation Measures
Noise emissions	<ul style="list-style-type: none"> • Construction noise. • Noisy equipment/machinery for construction and maintenance. • Vehicles transporting materials for construction activities. • Noise from idling vehicles and music played by patrons • Noise from generator 	<ul style="list-style-type: none"> • The facility will adhere to GNBS guidelines for noise emissions. • Construction work will be scheduled to ensure noisy activities are conducted within the stipulated time and noise levels, 90 dB (daytime and 75 dB (nighttime). • Signage will be erected to prohibit loud music from vehicles utilizing the Gas Station.

Improper Waste Management

- Improper management of hazardous and non-hazardous waste
- Littering

- The generator will be equipped with sound attenuation measures.

- Follow the Environmental Protection (Litter Enforcement) Regulations 2013
- Follow the Environmental Protection Hazardous Waste Management Regulations 2000 for the management of hazardous waste
- The facility will be furnished with covered waste receptacles.
- Systems will be implemented to ensure good hygiene and sanitation practices.
- An approved Waste disposal service provider will be utilized for the collection and disposal of waste.
- Employees will be trained in good waste management practices,

	and anti-littering signs erected.
<p>Oil spills</p> <ul style="list-style-type: none"> Oil spills from leakage or accidents 	<ul style="list-style-type: none"> Monitor and maintain storage tanks, fuel pumps, and other equipment. Erect signage outlining spill clean-up procedures. Prominently display emergency contacts at all times. Ensure appropriate clean-up equipment, such as spill trays, dispersant spray system or sorbent pads etc. are available. Provide adequate staff training to prevent and manage oil spills.
<p>Air Pollution</p> <ul style="list-style-type: none"> Dust from construction activities Particulate matter, volatile organic compounds (VOC), and emissions from vehicle exhaust can contribute to Air pollution. 	<ul style="list-style-type: none"> Dust suppression systems will be utilized. Fuel pumps will be monitored and maintained to minimize fuel spills and reduce VOC emissions. Signage will be erected to caution drivers to turn off vehicles when refueling.

Water pollution

- Runoff can carry oil, sediments, grease, and heavy metals into nearby waterways.
- An oil-water separator will be installed before final discharge.
- Regular monitoring and maintenance of tanks and equipment will be conducted.
- Spills will be cleaned promptly.
- Adhere to environmental best practices stipulated by the EPA for spill prevention, containment, and cleanup.
- An interceptor drain will be constructed to collect stormwater, ensuring effective drainage across the facility.
- Groundwater monitoring wells will be constructed with guidance from the EPA after the Environmental Permit has been issued.

Fire/explosion

- Refueling activities
- Smoking by patrons and employees.
- Gas leakage and poor handling
- Refueling will be conducted following local standards.
- Insert safety signage within guest rooms and

at strategic locations within the facility.

- No smoking and other safety signage will be erected.
- The facility will be equipped with essential firefighting equipment, including sand buckets and fire extinguishers. All individuals entering the facility will be made aware of the emergency procedures, including muster points and emergency exits through signage.
- Electrical wiring and outlets will be installed as per local standards.
- Adequate signage and proper training will be provided to enhance staff competency.

Hazardous waste (HW)

- Fuel and oily waste from accidental spills.
- Storage containers
- Use and disposal of cleaning chemicals.

- Hazardous waste (HW) will be stored separately from the non-hazardous waste. They will be disposed of in accordance with

specifications on the item.

- HW cleanup kits will be kept on- site.
 - Employees will wear protective gears when handling hazardous materials and waste.
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10.0 Appendices

Appendix 1: Site Plan: Onderneeming Gas Station

*Conditions:

- (1) the developer shall adhere to the mitigation measures as stipulated by the Environmental Protection Agency.
- (2) At no time must the operation of the development create any form of nuisances to the surrounding area with respect to noise and encumbrance of the roadways, road reserves and driveway of neighbouring properties.
- (3) The developer must adhere to the fire safety requirements as stipulated by the Chief Fire Officer.

ANNANDALE RIVERSIDE
N.D.C.
23-04-20

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Secretary
SEP 04 2023
Central Housing &
Planning Authority

W. NAME: RYADH ALANI

Image 2: Google map of surrounding land use

