ATLANTIC FUELS INCORPORATED
– BULK FUEL DEPOT

PROJECT SUMMARY FOR THE OPERATION OF A BULK FUEL TERMINAL FACILITY AT PARCEL I, BLOCK XXVII, PLANTATION FRIENDSHIP, EAST BANK DEMERARA, GUYANA, SOUTH AMERICA

Prepared for:

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Lot 252 -253 Cedar Court
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For Submission to:

ENVIRONMENTAL PROTECTION AGENCY
Ganges Street, Sophia
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GUYANA

MAY 03, 2023

SECTION 1: INTRODUCTION

1.1 Project Overview

ATLANTIC FUELS INCORPORATED, formed under the Companies Act 1991 of the Laws of the Cooperative Republic of Guyana on 3rd June 2015 with registered office at Lot 252 -253 Cedar Court, Lamaha Gardens, Georgetown has submitted an application to the Environmental Protection Agency for an Environmental Authorization to operate a Bulk Fuel Depot at Parcel 1, Block XXVII, Friendship, East Bank Demerara within the Caledonia/ Good Success Neighbourhood Democratic Council (NDC) for the intake, bulk storage and distribution of diesel.

This Depot which was recently constructed consists of the following elements: an Intake fuel line, outlet fuel line, a double walled horizontal Fuel tank with a capacity of 7,135 IG, two (2) double walled vertical fuel tanks with a combined capacity of 36,634 international gallons (IG), a fuel loading gantry, a fire protection water tank (640 Cubic feet) with a fire pump, a reinforced concrete bund wall that is 12 inches thick that surrounds a spill collection area of 1985 square feet and an oil/water separator.

The company has thus far invested approximately G$56,000,000. It is anticipated that the project will have a useful life of greater than 20 years and yield conservatively an annual return when fully operational of approximately G$18,000,000. This facility is expected to provide employment to fifteen (15) employees and provide benefits to the Government of Guyana in the form of Income and Corporation Tax revenues and Insurance contributions.

SECTION 2: DESCRIPTION OF PROJECT LOCATION

The proposed bulk fuel depot to the operated by Atlantic Fuels Incorporated is located at Parcel 1, Block XXVII, Plantation Friendship, East Bank Demerara.

The current project is situated on approximately 3 acres of land beginning at the northern boundary and continuing for two hundred and ninety three (293 feet) south parallel to the northern fence and four hundred and forty five (445) feet from the eastern boundary to the western boundary together with a right of way measuring thirty (30) feet wide and running east to west approximately four hundred and forty five (445) feet from the eastern boundary to the wooden wharf measuring three hundred and seventy-five (375) Linear feet, all silos, warehouses, fuel tanks with an approximate capacity of fifty thousand (50,000) gallons and all erections. **(See Figure 1 -3 below)**

The land occupied by the Project is immediately bordered to the **North** by a main drainage canal, to the **East** by the main public roadway, to the **West** by the Demerara River, and to the **South** by a vacant portion of land held by the Lessor and an adjoining property owned by another developer.

2.1 Feasible and Reasonable Alternatives

The proposed area is zoned for mixed land use. Land in the area is used both for residential and commercial uses. The property can be used for both residential and industrial applications. With specific reference to the proposed project, the location is the most appropriate location that is available at this point of time for the Bulk Fuel Depot. With reference to the citing of various components/ elements of the project, there are a number of alternatives that can be explored.

<Figure 1: Project Location>

Source: Google Earth, 2023

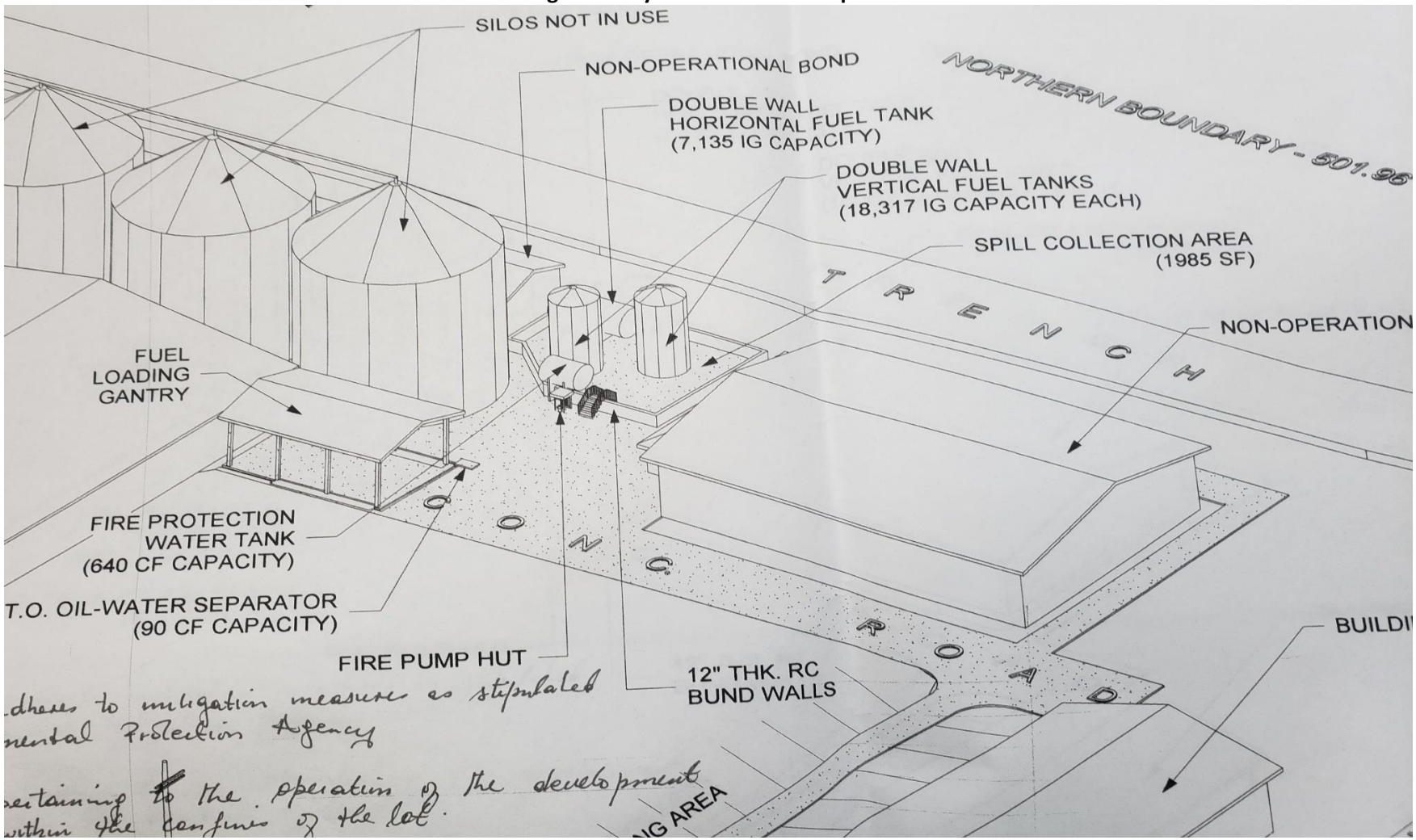
<Figure 2: AFI Bulk Fuel Depot Location>

Source: Google Earth, 2023

2.2 Layout of the Project

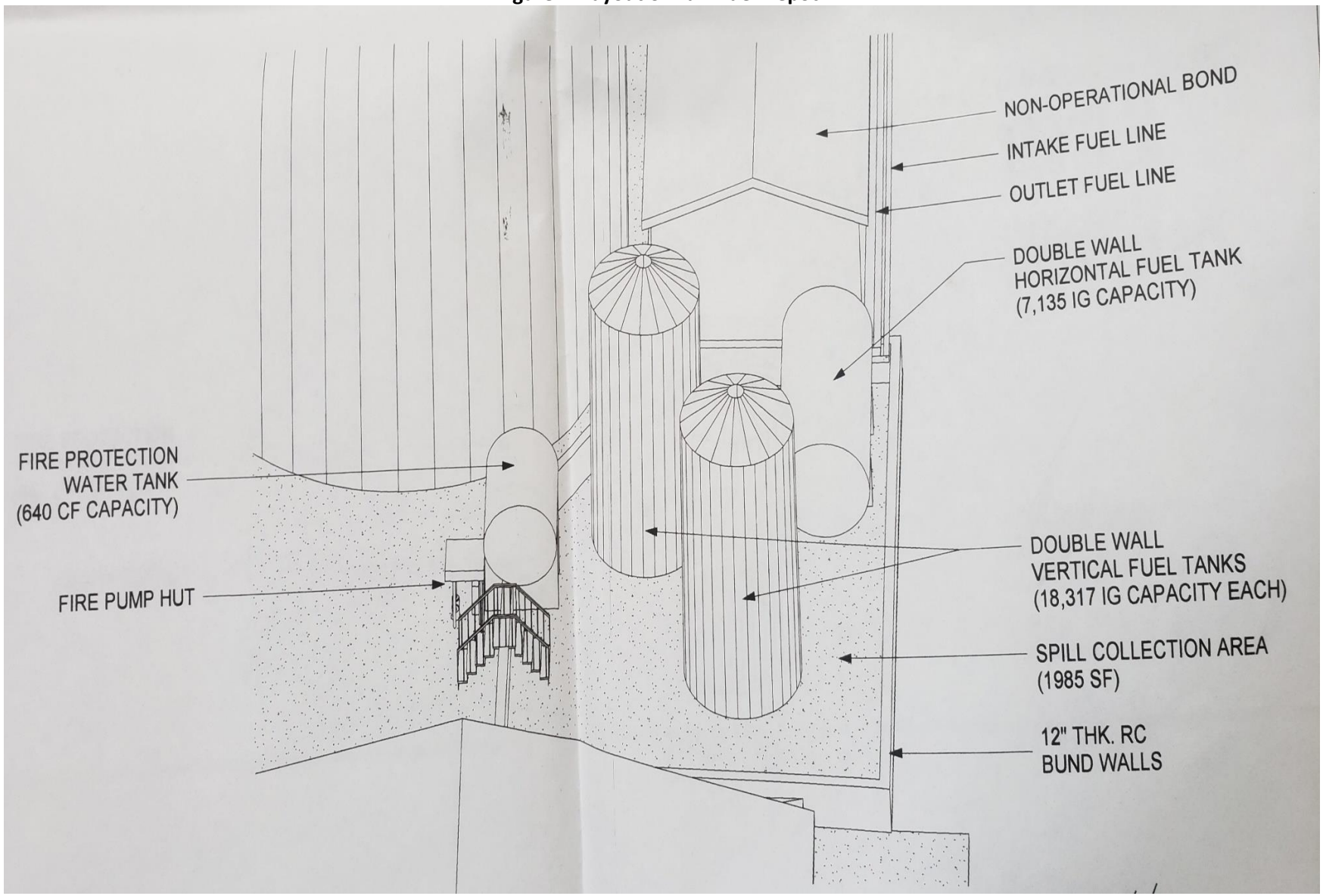
The layout for the elements of the Bulk Fuel Depot is shown on the architectural drawing at **Figure 3 below.**

<Figure 3: Layout of Bulk Fuel Depot>



Source: Atlantic Fuels Incorporated, 2023

<Figure 4: Layout of Bulk Fuel Depot>



Source: Atlantic Fuels Incorporated, 2023

SECTION 3: DESCRIPTION OF PROPOSED PROJECT

3.1 Concept of Operations

Our operations when fully approved will be concerned with the importation, onsite storage, and wholesale distribution of diesel to miners and other manufacturing companies for utilization.

Oceangoing Fuel tankers will bring diesel fuel from internally based refineries to our facilities located on the Eastern Bank of the Demerara River. This vessel will be moored to the existing wharf and supply hoses connected from the vessel's tanks to fuel intake lines of the depot. Once the necessary connections are made between the supply vessel and the facility's fuel intake line, the appropriate valves are opened and the aboveground fuel storage tanks within the bermed area filled one at a time and their respective valves closed and secured. Once all of the aboveground fuel storage tanks are sufficiently filled any excess fuel is siphoned and the hose connecting the fuel tanker with the intake line of the depot is slackened and removed.

Customers desiring to procure fuel from us, can be supplied from our fuel outlet line that terminates at the wharf proximal to the demerara River and a fuel loading gantry within the compound.

3.2 Material Requirements

The following materials will be required for use in Fuel Depot operations:

- Petroleum Products (50,000 IG)
- Hoses and Connections
- IBC Tote Tanks
- 55 Gallon Drums
- Fire Extinguishers
- Spill Kits for Petroleum products
- Adsorbent materials
- Personal Protective Equipment (PPE)
- Dispensing Units
- Fuel Transfer Pumps
- High Pressure Water Pump with Hose
- Backup Power Generation Systems

3.3 Source of Utilities

Several utilities will be used for operations of the facility.

- ✓ Water will be supplied to the facility by supply lines coming from Guyana Water Incorporated. It is anticipated that approximately (X) cubic meters of water will be utilized on a monthly basis.
- ✓ Electricity will be used from the National Grid managed by Guyana Power and Light Incorporated to provide power for the administrative offices and to provide power for pumps used to transfer fuel around the facility. In cases of power outage, a small power generation system will be utilized to provide backup power.

✓ Information Communication Technology facilities will be made available by Guyana Telephone and Telegraph Company.

3.4 Air Emissions

There are likely to be Emissions to the Air from the following stationary and mobile sources at Atlantic Fuels Incorporated – Fuel Depot. **See Table 1 below**

<Table 1: Emissions to the Air>

No.	Types	Sources
	Stationary Sources	
1	Gaseous Pollutants (Combustion Gases)	Backup Power Generation System
2	Tank Venting	Aboveground Fuel Storage Tanks Gaseous Releases during Tank Filling/ Refilling Gaseous Releases during normal fuel storage Gaseous Releases during Fuel Dispensing to Customer Holding Vessels
4	Particulate Emissions	Exposed Concreted surfaces
	Mobile Sources	
5	Gaseous Pollutants (Combustion Gases)	Various Classes of Motor Vehicles Various Classes of Truck Tankers Portable Equipment

3.5 Waste Production

There is likely to be three (3) main categories of waste generated by Atlantic Fuels Incorporated. These are: Solid, Liquid and Hazardous Waste. Information on the types and treatment/ disposal method(s). **See Tables 2-4 below.**

Solid Waste

<Table 2: Solid Wastes>

	Types	Treatment/ Disposal Methods
	Domestic Waste	Collection and Disposal by Private Waste Management Service

Liquid Waste

<Table 3: Liquid Wastes>

	Types	Treatment/ Disposal Methods
	Domestic Waste Water (Grey Water)	Surface Drain
	Sewage	Onsite Septic Tank with Associate Treatment System. Sludge will be collected and disposed of by private waste management service.
	Petroleum Residues	Oil Water Separator

Hazardous Waste

<Table 4: Hazardous Wastes>

	Types	Treatment/ Disposal Methods
	Off Specification Fuel	Collection, Disposal and Treatment of Waste by Hazardous Waste Treatment Facility.
	Waste Oils	
	Waste Personal Protective Equipment	

	Wastes from Petroleum Spills and Leaks	
	Waste Oily Rags and Wipes	
	Spent Fluorescent Lamps	
	Spent Batteries	

SECTION 4: POTENTIAL IMPACTS AND MANAGEMENT

Given the proposed activities elaborated at **Section 3 above** that are to be undertaken at the project site during the operational phases, several environmental impacts are anticipated and mitigation measures will be implemented for the management of the same.

A comprehensive assessment will be undertaken at a later stage if it is so determined by the Agency.

4.1 Environmental and Social Impacts

The following environmental and social impacts are likely during the operations of all elements of the Machining Workshop

Environmental Impacts

- Use of Water Resources
- Use of Energy Resources
- Emissions to the Air: Dust/ Particulates
- Emissions to the Air: Gaseous Emissions (Combustion Gases)
- Emissions to the Air: Gaseous Emissions (Volatile Organic Compounds)
- Noise and Vibration Impacts
- Potential Releases/ Discharges to Surface Water
- Potential Releases to Land/ Soil
- Generation of Solid, Liquid and Hazardous Waste

Social Impacts

- Health and Safety Risks to Onsite Workers

4.2 Mitigation Measures

ATLANTIC FUELS INCORPORATED will implement the following mitigation measures to address adverse impacts associated operations of all elements of the machining workshop. **See Table 5 below.**

<Table 5: Mitigation Measures>

ASPECTS	MITIGATION MEASURES
ENVIRONMENTAL IMPACTS	
Use of Water Resources	• Implementation of water conservation initiatives
Use of Energy Resources	• Implementation of Energy conservation initiatives
Emission to Air: Dust/ Particulates	• Use of Wet Suppression methods to control dust upwelling • Limiting Vehicle Speeds onsite to minimize kick up dust

Emissions to Air: Gaseous Emissions (Combustion Gases)	• Use of improved Equipment with lower pollutant emission levels • Regular inspection and maintenance of heavy-duty equipment in accordance with manufacturer's specifications
Emission to Air: Gaseous Emissions (Volatile Organic Compounds)	• Routine Inspection and Maintenance of Venting Systems on Aboveground Fuel Storage Tank • Design areas to improve ventilation.
Noise and Vibration Impacts	• Use of Sound Attenuated Power Generation Systems • Use of Heavy-Duty Equipment with lower noise emission levels • Placement of Heavy-Duty Equipment on Level Ground/ Foundations. • Placement of Noise Generating Equipment away from sensitive receptors. • Regular inspection and maintenance of heavy-duty equipment in accordance with manufacturer's specifications • Restricting Noise generating activities
Discharges to Surface Water	• Use of Effluent Treatment Technologies
Potential Releases to Land/ Soil	• Use of drip trays • Use of Prepositioned Spill Kits • Use of Secondary Containment structure around aboveground Fuel Storage Tanks to facilitate containment and recovery.
Generation of Solid, liquid and Hazardous Waste	• Holding of Waste material in sealed high-capacity bins onsite • Private Waste Management Contractor will collect, transport, treat and dispose of waste material generated
SOCIAL IMPACTS	
Health and Safety Risks	• Emergency Response Plans to address Emergency Situations that may potentially arise • Strategic placement of Emergency Resources: First Aid Kits, Spill Kits, Fire Extinguishers etc.

SECTION 5: APPENDIX

5.1 Pictures of Project Site

<Figure 5: Fuel Intake/ Outlet Line Point near Wooden Wharf>

<Figure 6: Fuel Intake/ Outlet Point>

<Figure 7: Fuel Pipelines>

<Figure 8: Pipelines with Valves to Fuel Storage Tank>

<Figure 9: Aboveground Fuel Storage Tank>

<Figure 10: Oil Water Separator inside of Fuel Containment Bund>

<Figure 11: Supply Line to Fuel Gantry>

<Figure 12: Fuel Loading Gantry>

<Figure 13: Shedded Area of Fuel Loading Area>