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GULF ENGINEERING SERVICES GUYANA

GULF ENGINEERING SERVICES (GUYANA) INC.

Lot 2-6
Land of Canaan
East Bank Demerara,
Republic of
Guyana.

GULF ENGINEERING SERVICES (GUYANA) INC.

APPLICATION FOR ENVIRONMENTAL AUTHORIZATION

SCOPE: STORAGE OF OIL AND GAS PRODUCTION CHEMICAL AND FUEL, LAYDOWN YARD STORAGE OF PIPES, LUBRICANTS AND DRY CONSUMABLES

SUBMISSION DATE	29 NOVEMBER 2024
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1 Project Overview

The proposed project involves the development of an industrial warehousing and pipe laydown facility in the Land of Canaan, Guyana. Spanning an initial area of 10 acres, with provision for future expansion up to 55 acres, the facility aims to serve the growing needs of the distribution, industrial and oil and gas industry in the region. (this requires more details refer to project summary guideline point 2)

2 Site Location

Lot 2-6 Land of Canaan, Guyana, strategically situated near the coast and major transportation routes, offers convenient access to both land and sea transportation networks. This prime location provides easy connectivity to key industrial hubs and facilitates efficient distribution of goods and materials.

3 Facility Features

1. **Warehousing Infrastructure:** State-of-the-art warehousing facilities equipped with modern amenities and advanced security systems to accommodate various types of industrial goods, including equipment, machinery, and materials.
   Building 1 - Showroom and office for industrial division – 12,600 sqft.
   Building 2 - Drilling Products (Barite and Salt), Building – 40,000 sqft.
   Building 3 - Lubricants, Consumables (Nuts, bolts, gaskets and dry consumables) – 14,000 sqft.

2. **Pipe Laydown Area:** Specialized area designated for the storage and handling of pipes used in oil and gas exploration and production activities. This section will be designed to meet industry standards for pipe handling and logistics, with an area of 144,000 sqft.
   Sizes are from 3-1/2" - 16" in diameter. Quantities are 1000- 5000 joints. Lengths are 32ft - 42 ft long each joint.

3. **Expansion Capacity:** With the provision for expansion up to 55 acres, the facility offers scalability to meet future demands and accommodate additional storage and operational requirements.
4. **Security and Safety Measures:** Comprehensive security measures, including surveillance systems, access controls, and fire prevention systems, ensure the safety and protection of assets and personnel within the facility.
5. **Environmental Considerations:** Adherence to environmental regulations and implementation of sustainable practices to minimize the ecological footprint of operations and mitigate any potential impact on the surrounding environment.
6. **Fuel Storage:** No Fuel being stored on location permanently and Diesel fuel to be used would be in a containment double walled tank less than 2000L and describe a bond to hold 1.5X the capacity.

4 Project Size

Capital Investment – USD$3,500,000 over a 4- year period for the development of a 10-acre plot.

To date, within the early construction phase, the manpower (labour) has varied between 10-15 persons employed; all 100% Guyanese nationals.

Project Management is being done by (2) non-nationals

5 Project Objectives

1. Provide a centralized hub for the storage, handling, and distribution of industrial goods and materials, catering to the needs of the burgeoning oil and gas sector in Guyana.
2. Enhance logistical efficiency and streamline supply chain operations by offering strategically located facilities with access to multiple transportation modes.
3. Support economic development and job creation in the region by fostering investment opportunities and promoting local employment through construction and operational phases.
4. Ensure compliance with regulatory standards and industry best practices to uphold operational integrity, safety, and environmental stewardship.

6 Proposed Project Timeline

1. Site planning and design phase – January 2024
2. Regulatory approvals and permitting process – April 2024
3. Construction and infrastructure development – Jan 2023 – Dec 2025
4. Installation of equipment and security systems – Dec 2024
5. Operational readiness and commissioning – Dec 2024 Ph1, Dec 2025 Ph2

7 Existing allocated space

8 Specifics - Chemical Storage Area

Internal floor to be made with impervious material (concrete), to be sealed. Floor sloping inwards to eliminate any leaked substance from entering the drainage system.

Drainage system connected to the existing collection sump.

Chemicals include:

- Diesel Fuel
- Kerosene Fuel
- Aqua-Sol Degreaser
- Bestolife range of products (coating)
- Sodium chloride solid
- Barite
- Calcium Carbonate
- Soda Ash
- Delta-Lift
- Delta-Mul
- Bio-Cote
- Defoam-X
- Noxygen XT
- Caustic Soda
- Petrosweet HSW
- 700 Scavenger
- LD-9
- Brine Pac 1500
- Delta-Vert ST
- Prime 770
- Xan-Plex
- Sapp
- Polyanionic Cellulose LV
- Mil-Carb (25, 50, 150, 600)
- Chek-Loss Plus
- Mil-Pac
- Lime Hydrated
- Carbo-Gel
- Nut Shell
- Guar Gum
- Sodium Bicarbonate
- Walnut Coarse
- Calcium Chloride
- X-Cide 102
- Delta-Mod
- Delta-FL ST
- BIOC16112NR
- MISC17477A
- MEMB00191A
- CLAR16489A
- BIOC00011A
- CLAR10112A
- MEMB00596A
- MEMB00577A
- HW443
- MISC17167A
- MEMB00533A
- CORR11008A

Lubricants include:

- Gulf Formula 5W40
- Gulf Harmony AW68
- Gulf Harmony HVI 32
- Gulf Super Duty VLE 15W40

Consumables Include:

- Bolts
- Nuts
- Gaskets
- Jet Lube Compounds
- Bestolife Compounds
- Kendex Compounds

9 Environmental Effects/Considerations

Land Pollution - The environmental impact of construction extends to land pollution through soil erosion, improper waste disposal, chemical spills, and improper handling of construction debris. These activities can degrade soil quality, contaminate land with hazardous substances, and destroy natural habitats.

Energy Demand and Consumption – Use of energy and consumption to provide lighting facility and supply power to buildings could result in excessive energy usage given the nature of operations and potential level of activities that may require prolonged use of our energy source.

Noise Pollution – Drilling, use of machinery, pile driving and vibration can cause hazardous noise exposure, which includes loss of hearing, sleep disturbances, stress and potential harm to biodiversity.

Air Pollution – Gas, Dust Emissions and improper waste management has the potential to increase the chances of bronchial asthma, probable lung cancer once released into the air.

Soil Errosion – land clearing activities can be extensive and thus lead to soil erosion.

Water Pollution – During construction phases and storage of chemicals there is a risk of contaminants from sediments and spillage of toxic chemicals entering the waterways which has the potential or likelihood of affecting biodiversity, release of toxic substances into waterways affecting ground water quality and additional health risks.

10 Mitigation Proposal Plans

Gulf has developed a robust framework in its efforts to alleviate the environmental impacts of economic activities on the environment, this involves the use of alternative and sustainable available resources to reduce/mitigate these impacts. We understand the need to reduce our ecological footprints and have developed plans to do such in our environmental policy to which we stand committed to ensuring full adherence and compliance along with the guidance of the legal regulatory existing frameworks and standard best practices adopted globally.

Our proposed plans seek to directly counteract the negatives effects that are associated with GESGI industrial activities from construction to daily operations, with a view of constantly reviewing and exploring new technological ways to continually improve and monitor our activities.

Mitigation proposal plans includes;

- Proper handling and chemical storage measures along with appropriate spill response protocols, waste management protocols for handling of waste materials, designing storage structure to prevent leaks from entering drainage systems.
- Use of noise barriers if applicable and internal noise monitoring devices to conduct monthly inspections and maintain record keeping. In addition, third party annual monitoring of noise and water quality for continued assessment of tolerance levels as regulated.

- Energy Efficiency – Use of efficient lighting which includes the use of LED lights to reduce energy consumption and switching off any machinery or lighted area when not in use. Building design to promote natural ventilation further reducing consumption levels.
- Source and use of equipment (as far as practical) that are designed with advanced emission control technologies such as filters to mitigate the adverse risk on air quality and/or reducing the use of equipment where possible to control the levels of emissions.

11 Conclusion

The proposed industrial warehousing and pipe laydown facility in the Land of Canaan, Guyana, represents a significant investment in infrastructure to support the burgeoning oil and gas industry in the region. With its strategic location, scalable design, and commitment to operational excellence and sustainability, the facility is poised to play a pivotal role in facilitating the efficient and responsible growth of the energy sector while contributing to the socio-economic development of the local community.