

PROJECT SUMMARY FOR THE CONSTRUCTION OF A WHARF & MOBILE CONCRETE PLANT

GUYAMERICA CONSTRUCTION INC.



**Project: Construction of a Wharf & MOBILE CONCRETE BATCHING
PLANT**

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1.0 Introduction

Guyamerica Construction Inc. is registered under the company's act of Guyana with its registered office located at 48 Stanley Place, Kitty, Georgetown and its equipment storage yard at 1365 New Industrial Site, Eccles, East Bank Demerara, Guyana. The company had commenced operations in July 2010 and has so far executed over G\$ 6 billion dollars in large scale road construction and housing scheme infrastructure in Guyana. The company has an outstanding track record by delivering major construction projects in a timely manner and at the highest possible quality standard for the Ministry of Public Works (MoPW), Ministry of Housing (CHPA, CIIP)), Ministry of Agriculture (ASDU) and other local and foreign housing development companies such as the Shangrelia Estates of Bronx, New York and Richmondville Housing Development of Queens, New York, ExxonMobil & GINMIN.

Our services include the construction / rehabilitation / upgrading of new and existing roads, construction of drains, culverts, bridges, installation of water network, along with a wide range of other products and services. Our primary customers being the Government of Guyana through its Ministries (CHPA, MoPW) and recently we have completed large infrastructural works such as construction of four (4) lane highway from Eccles to Mandela Avenue and Eccles to Great Diamond with other contracts in progress.

With the vastly increased development in Region #3 and even more significant development signaled by foreign and local investors, our company has decided to invest in a wharf facility. This is critical for providing access to large quantities of raw materials we require for our project in region #3 award by the CHPA and future projects we intend to bid for. Significant restrictions with crossing the demerara harbour bridge and lack of large quantities of materials available in Region#3, a wharf is needed to ensure our contracts are completed on time.

2.0 Project Location & Overview

The facility will be located at Tract A Plantation Soesdyke, East Bank Demerara. It will include a revetment on the western boundary to the Demerara River and fenced around the northern, southern and eastern boundary. Within the compound will be a reinforced concrete road with the portion of the land being laydown area. The proposed state of the art concrete batching plant will be providing the company with timely and to specification ready-mix concrete for the company's infrastructure and road construction contracts with the Government of Guyana. The developmental budget for the project is 6 million US dollars and is financed through a private bank loan.

Below outlines various aspects of the project.

2.1 Pre-Construction Phase

This phase will encompass the site development works which include clearing all vegetation from the plot and excavation if required and sand filling. Construction of reinforced concrete road/driveway within the compound will also be done at this stage. During these works, it is estimated that 7,500 cubic yards of white sand will be required to bring the site up to design grade. As a consequence, in this phase, excavators, sand trucks, wheel loaders, graders and bulldozers will be prevalent on the site. The duration of this phase is expected to be 1.5 months.

2.2 Construction Phase

It is anticipated that 20-40 construction workers will be full-time on the project during this stage along with the necessary equipment such as excavators, sand trucks, wheel loaders, etc. will be prevalent on site. Also, regular deliveries of construction materials are expected throughout this phase. The duration of this phase is expected to be 2 months.

2.3 Operation Phase

The operational phase of the project will consist of normal services provided by wharf and laydown yard. The estimate project lifespan is 100+ years.

2.4 Plants

The plant have been purchased from India and is a state of the art wet mix mobile ready-mix concrete plant capable of producing 60 cubic meters per hour. This will provide timely production of materials at the strength and standard required by our clients. The plants were delivered with all the necessary drawings and components for assembly.

2.5 Utilities

The main electricity supply will come from the Guyana Power and Light (GPL) with backup power provided by a 200 KVA stand by a diesel generator. The generator will be equipped with the necessary mufflers and located in a soundproof enclosure. Water will be provided by Guyana Water Inc (GWI) and there will be water storage provided on the property to cater for interruptions in the service. All greywater effluent will be drained using perimeter reinforced concrete drains with the primary discharge point which will be treated before disposal. Blackwater effluent will be addressed with a septic system; the design of the septic system will follow the recommendations by the GNBS and EPA.

2.5 Employment

The project is expected to require approximately fifty (50) persons during the land preparation and construction phases. Additional employment is expected once operations commence, however, at this time the required number cannot be estimated and will vary depending on level of operations, client requirements and contract commitments.

3.0 Possible Environmental Impacts and Mitigation Measures during Construction and Operation of Wharf

Majority of potential impacts if not all will be during the construction phase.

Potential impacts and mitigation/management measures are as follows:

3.1 Air Quality

During Construction phase:

- Dust emanating from the grading of land for infrastructural works, mixing of concrete, sawing of timber, and transporting of materials to the site.
- Smoke and volatile organic compounds present in the exhaust fumes coming from heavy-duty construction equipment used at the site will affect the quality of the air in the immediate surroundings. This can present potential risks for persons, particularly those with breathing challenges.
- Onsite generators which will be used in event of blackouts, may release smoke and pose a risk to human health and the environment.

3.2 Fugitive Dust

The project has the potential to generate dust at levels that can significantly affect the air quality within the project area. However, most of these impacts are expected to be localized and can either be prevented or reduced.

Dust will also be generated from several aspects of construction including but not limited to:

- a) Vehicles transporting raw materials and loading & off-loading of trucks.
- b) Construction and operation of support facilities such as material stockpiles area.
- c) Debris deposits from vehicles exiting the construction zone.
- d) Transporting sand, stones and other raw materials during loading of

plant

3.2.1 Impacts associated with Fugitive Dust

- Dust generation would be greater during dry periods and will be influenced by construction activities, soil type, moisture content, and wind speed.
- Workers and the public exposed to prolonged dust pollution can develop acute respiratory ailments and eye irritations.
- Dust emissions may also impair the line of sight of workers and road users which increases the possibilities of vehicle accidents and other safety concerns.
- Dust can also be generated from material stockpiles as a result of wind, especially during dry conditions.

These impacts are controllable and are expected to be short-termed and localized.

3.2.2 Mitigation measures to reduce potential impacts associated with Fugitive Dust

The following measures would be implemented to reduce the impact of dust within the project environment:

- Equipment that produces significant quantities of dust to be sited away and downwind from homes and working environments.
- Personnel working within dusty environments (e.g. stockpile area, cement ransom, or ready-mix service) would be required to use dust masks or respirators, goggles or other necessary personal protective equipment (PPE).
- During dry periods, the access route is to be monitored for dust particles becoming airborne while vehicles and equipment are traversing. Periodic soaking will be administered if dust pollution arises.
- Loaded Trucks tray are to be covered when transporting material to

minimize dust emission.

- Material stockpile to be kept to a minimum height to reduce wind action on materials. A maximum stockpiling height of 10 feet is recommended for materials susceptible to wind, and a maximum stockpiling height of 15 feet for materials impervious to wind.
- Before transporting sand and stones to the mixer, sprinkle water on the sand and stones respectively in advance for wetting.

3.3 Exhaust emissions

Construction works will result in combustion emissions from the use of diesel and or gasoline fueled heavy-duty equipment. Combustion emissions will be minimal, short-term, and localized to the area of the vicinity of construction activities. Emission impacts are also expected to be unavoidable.

3.3.1 Mitigation measures to reduce potential impacts associated with exhaust emissions

- Maintaining construction equipment in accordance with manufacturer's specifications in order to operate at optimal efficiency to reduce excessive emissions.
- Maintenance log for equipment/machinery shall be utilized, documenting all maintenance actions that are performed.
- All equipment and machinery to be turned off once inactive.

3.3.2 Mitigation Summary

There is the possibility for dust pollution to occur as a result of construction activities. Dust pollution can be a significant health impact, particularly on employees since these impacts will be mostly localized. As such, there is the need to implement measures to prevent and minimize dust levels within the project area. Thus, the following measures will be implemented to reduce the impacts of dust:

- There is a variety of Personal Protective Equipment (PPE) available to combat dust nuisance. Workers will be equipped with the necessary PPE based on the type of work environment they are operating within. Personnel working within dusty environments will be required to use dust masks or respirators;
- During dry periods it will be necessary to soak the construction zone and routes where vehicles and equipment traverse in order to reduce dust pollution;
- Dry materials for land preparation will not be stockpiled for long periods.
- All trucks transporting loose materials will be covered to minimize dust emissions; and
- Burning of waste onsite will be disallowed. This would reduce the number of emissions into the atmosphere from burning.

3.4 Noise

Noise will be generated mainly from the use of fuel-powered generators and heavy-duty equipment and machinery during the construction phase. These impacts are unavoidable and expected to be short-term and localized.

3.4.1 Impacts associated with Noise

Exposure to noise levels above the internationally accepted level of 90 decibels can cause noise-induced hearing loss. Noise levels above the tolerable threshold of 72 decibels can result in fatigue, tiredness, low morale, and decreased productivity. Heavy-duty machinery and equipment will be utilized during the construction phase of the project, this can result in an increase in noise levels. Also, some construction activities are generally noisy. Although the project will result in increased levels of noise, the impacts will be localized and will not pose harm to any nearby

community. It is also important to note that the project sits within an area with industrial activities and as such, will carry a higher noise level threshold to that of a residential community. Nevertheless, measures will be implemented to reduce noise levels to that recommended by the GNBS Guidelines for Noise Emission into the Environment specific to construction and industrial sites.

3.4.2 Mitigation measures to reduce potential impacts associated with noise

During the construction phase, Guyamerica Construction Inc. will mitigate the potential impacts from noise by:

- Keeping Noise levels within the EPA's established limit of 90 decibels during the day and 75 decibels at night.*
- Employing best practices on-site to minimize occupational noise levels and provide noise protection equipment to employees.*
- Procuring hearing protection such as earplugs to employees exposed to high noise levels.*
- Efforts will be made to ensure machinery and equipment are working efficiently and have installed the manufacturer's required muffler devices where practical.*
- Night works will be avoided, to the most practical extent.*

3.4.3 Mitigation Summary

As discussed above, the impact of noise from construction activities is not expected to be significant since there is minimal residence within close proximity, particularly downwind of the project. The need still exists to implement measures to prevent and minimize noise, especially as it relates to impacts to workers and other operations within the immediate surroundings. Compliance with the GNBS limits is, therefore, necessary to ensure the impacts on the environment and human health, particularly

for workers, are reduced. The following measures will be implemented to reduce the impacts of noise:

- The provision and monitoring of the use of Personal Protective Equipment (PPE) are critical. Workers will be equipped with the necessary PPE to mitigate noise pollution. Hearing protection for employees exposed to high noise levels: earmuffs and earplugs for employees who operate heavy-duty machines/equipment will be provided;
- Control of noise levels at source will be done through the installation of mufflers and silencers on the exhaust system, particularly for generators;
- Noisy equipment such as generators will be sited away from work sites and also be enclosed if needs be. This would reduce the amount of noise escaping into the environment and the impacts to workers;
- Warning signs will be erected in areas of high noise levels instructing employees to wear earmuffs or earplugs as required;
- Machinery and equipment will be serviced regularly with the necessary silencer installed wherever possible.

3.5 Soil

Impacts to the soil will be unavoidable but would not cause any impact to the environment, but would rather enhance the area by the prevention of erosion. No mitigation measures will therefore be required.

3.6 Water Resources

3.6.1 Surface Water

Soil erosion and sedimentation could result from earthworks associated with construction activities such as foundation excavation or primary and secondary drains. Improper disposal of waste (liquid and solid) and

mismanagement of fuel/lubricants can also pose threat to surface water which will be avoided by the Developer. Discharge of wastewater from construction into the external drainage systems (river) can pose risks to the environment.

3.6.2 Mitigation measures to reduce potential impacts associated with surface water pollution

In order to protect watercourses and the quality, Guyamerica Construction Inc. shall:

- Locate and properly cover material stock-piles and excavated materials in a designated area, away from water bodies to prevent excessive soil deposits.*
- Waste storage stockpiles or stockpiled material shall not be placed within 10m of any watercourse and shall have a toe berm construction around.*
- Minimize and contain suspended sediment (i.e., Non-Filterable Residue, NFR) within the immediate zone of construction.*
- Undertake appropriate containment measures during concrete pours to ensure that uncured concrete or concrete leachate does not enter any watercourse or drainage. Preventative methods include sediment traps.*
- Place pumps and generators on bermed polyethylene sheeting to prevent hydraulic fluid and/or fuel leaks from entering water bodies.*
- Ensure that a perimeter reinforced concrete drain is constructed in the early stages to collect all runoff from the project site.*

3.6.3 Mitigation Summary

All wastewater will be collected via internal concrete drains. Other measures to reduce the associated impacts on the water resources will include the

following:

- No dumping of solid waste into the drainage system. All waste will be managed in an acceptable manner.
- Ensuring that fuel is managed and stored in a recommended manner;
- Ensuring that waste oil, hydraulic fluid, and other oil-based substances are collected using drip trays and other spill prevention mechanisms so as to prevent spills that can lead to water contamination.
- Ensuring that all oil and grease-based substances are stored in sealed containers of which are then kept in an enclosed environment with an impermeable base.

3.7 Fuel, Lubricants and Chemicals Management

Improper handling and management of fuel and lubricants can result in soil and water contamination. Fuel and lubricants are classified as hazardous materials and require special consideration in terms of transportation, storage, and handling. In addition to contamination, the improper use, storage, and handling of these substances can pose various threats to the workers onsite as well as surrounding communities.

Lubricants that are required for heavy-duty machines and equipment will be provided during servicing. Nevertheless, if these are to be stored onsite, for any reason, it is important for them to be stored properly, as they can ignite and release dangerous fumes. All fuel, lubricants, and chemicals (if used) will be clearly labelled and easily identified to reduce the chances of misuse. In addition, all workers handling these substances will be required to wear the necessary PPE to prevent any unwanted contact with these hazardous substances.

3.7.1 Mitigation Summary

Fuel, lubricants, and chemicals can have serious impacts on the surrounding environment if special consideration is not given to the transportation, handling, and storage of these substances. To reduce the risks to the environment and human health, preventative actions will be taken and/or mitigation measures implemented. The contractor and subcontractors will therefore be required to implement the following measures to prevent and or reduce the impacts of these hazardous substances on the environment, in particular, contamination soil and water from accidents and/or spills:

- Efforts will be made to transport fuel to the work area as needed. This would minimize the need to store large quantities of fuel onsite. Small quantities of fuel onsite will minimize the possibility of spillage and also minimize the impacts if spillage does occur;
- If required, the storage of fuel, lubricants, and chemicals onsite will be done at a safe distance from drains and Demerara River and will be placed higher than ground level to detect any leaks. Storage will be also be done within a bunded area with an impervious surface and a secondary containment with the capacity of 110% of the largest storage container. Such measure is important as the containment berm would prevent any spill from getting into the surrounding environment and the elevated storage would allow for easy and early detection of leaks on the storage container;
- Preventative measures such as adequate signage, fire extinguishers, and/or sand buckets will be placed in and around the fuel storage area (if any). The type of fuel stored in containers will be indicated and signage will include 'No Smoking' and Highly Flammable'. This would warn persons of the dangers of the substances as well as how they should handle these substances;

3.8 Waste Management

3.8.1 Management of liquid and solid waste

The project will generate waste during the construction stage, if not managed properly, can result in soil and water contamination, contribute to ill health, and affect the aesthetic of the area. This plan will ensure that waste generated during construction is handled and mitigated appropriately and according to the guidelines of the EPA. The following are some of the materials that can be expected to be generated during construction:

- Stripped vegetation
- Concrete forms
- Dimension lumber
- Packing materials
- Containers for various construction materials (e.g. concrete and steel)
- Pallets
- Plastics
- Waste oil, filters, lubricants, and hydraulic fluids
- Concrete
- Food
- Sewage

3.8.2 Impacts associated with the improper disposal of waste

- Waste heap piles often present an eyesore and can affect the aesthetic of any environment.
- The improper disposal of waste, especially food waste can increase the potential of Occupational Safety & Health hazards and also result in unpleasant odours and the attraction of vermin.
- Mismanagement of waste can lead to secondary sources of pollution and contamination of land and water.

3.8.3 Mitigation measures to reduce potential impacts associated with improper waste disposal

- Reduce the amount of waste required to be managed. Therefore, avenues of reusing 'waste' materials will be explored in situ.
- Waste generated will be segregated into organic wastes (vegetation, top-soil); inert waste such as plastics, food boxes, rubber, etc.; and hazardous waste. Inert and hazardous wastes will be stored in covered bins.
- Waste generated at the construction site will be collected and transported to the Hags Bosch Landfill.
- Segregated waste disposal bins will be maintained at ancillary facilities.

3.9 Domestic Waste

- Burning of waste materials and littering around the construction zone will be prohibited.
- Frequent clean-ups will be done by the Developer to ensure the work ground is kept tidy.
- Daily housekeeping to be done.
- Bins shall be available onsite for the storage of waste materials. Domestic waste will not accumulate for more than 7 days on-site. The developer will transport waste materials to a designated landfill weekly.
- Poorly kept garbage receptacles may harbour pest and even diseases carrying vectors. The developer will perform weekly washing of garbage receptacles.

3.10 Sanitary wastewater/sewage waste

- A suitable number of portable toilets will be installed at the worksite and will be routinely (weekly) serviced.

- The waste storage area will be located away from the water body to prevent secondary entry and possible pollution/contamination.

3.11 Construction Waste

- Construction debris and other waste will not accumulate on the construction site for more than 14 days.
- The developer will remove twice weekly to prevent accumulation.
- The developer will explore all possible avenues for the reuse of construction waste as far as possible.

3.12 Concrete Waste

- Fresh concrete or cement will be isolated from any designated watercourse for 48 hours after placement. Containers or trucks carrying cement or fresh concrete will be washed at an EPA's approved site.
- Concrete waste, including wastewaters from batching or cleaning, will only be disposed of at approved and designated disposal sites as stipulated by the EPA. All cement-contaminated wastewater from cleaning or mixing is to be considered toxic and must be prevented from entering any watercourse for at least 48 hours to allow the water to reach neutral pH.

3.13 Cleared Vegetation

- Cleared vegetation and other debris within the construction zone during mobilization will be stockpiled and later transported to the designated landfill by the Developer. The 14-days rule applies here as well.

3.14 Mitigation Summary

As mentioned above, proper waste handling and disposal are important during the project's construction phase. Several waste streams will exist,

including domestic garbage which usually consists of a mix of bottles, bags, cans, boxes, plant residues, excess food and packaging material, and paper. In addition, liquid waste will also be generated including sewage waste and wastewater from sanitary facilities. Finally, hazardous waste may also be present in the project area; these include used batteries, tyres, waste oil, filters, oil containers, and contaminated soils.

3.0 Possible Environmental Impacts and Mitigation Measures during Construction and Operation of Mobile Concrete Batching Plant

Majority of potential impacts if not all will be during the construction phase.

Potential impacts and mitigation/management measures are as follows:

1. Measures to control fugitive dust: Before transporting sand and stones to the mixer, if anticipated heavy dust will arise, water will be sprinkled on sand and stones and road surface;
2. The plant will be oriented in such a manner to the oncoming wind direction to cause minimal dust pollution.
3. Waste water will be collected and assessed before disposal by approved methods.
4. Excess concrete will be used for temporary construction works on the site.
5. Additives and chemicals (if any) will not be stored in close vicinity to the plant and will be used in a manner as prescribed by manufacturer.
6. Machinery and operation exhaust and gaseous emissions will be mitigated and/or controlled by maintaining and operating accordance to manufacturer requirements, turning off when inactive, etc.
7. Potential impacts associated with noise will be significantly reduced by ensuring material transport requiring prolonged times are done during non-peak hours. Machines and equipment that may be in intermittent use will be shut down between work periods or be throttled down to a minimum, Noise levels will be kept within the EPA's established limit of 90 decibels during the day and 75 decibels at night and Hearing protection such as earplugs will be provided to employees exposed to high noise levels.
8. The site is adequately secured to prevent ingress of wildlife.

Waste management

Some amount of domestic waste will be generated during mobilization and setting up stage and during operation, if not managed properly can result in soil and water contamination, contribute to ill health, and affect the appearance of the site. It will be ensured that the waste generated during mobilization and assembly of the plant is handled and mitigated appropriately and according to the guidelines of the EPA.

- 1) Construction and demolition Waste – Avoid piling up and organize efficient removal and disposal in accordance with EPA guidelines.
- 2) Recyclable waste will be separated and reused accordingly.
- 3) Effective housekeeping will be practiced and maintained, utilizing a designated waste storage area which will be cleaned and disposed through licensed sanitation service provider.
- 4) Hazardous waste such as chemicals, batteries, and bulbs will be distinguished and stored accordingly with necessary controls implemented.
- 5) To maintain compliance with legislation and to reduce environmental impacts, all workers involved in the waste management process will get sufficient training on proper waste handling and disposal practices.
- 6) By implementing these waste management measures, we aim to minimize its environmental impact, protect public health, and to ensure compliance with laws and regulations.

Domestic waste

- 1) Waste disposal:
 - a) Burning of waste materials and littering around the construction zone will be prohibited.
 - b) Bins will be available onsite for the storage of waste materials.
 - c) Domestic waste will not be allowed to accumulate for more than 7 days on-site.
 - d) The waste will be transport to a designated landfill weekly or as necessary.

2) Cleaning and housekeeping:

- a) Frequent clean-ups will be done to ensure the work area is kept tidy.
- b) Daily housekeeping will be done to remove any debris or waste from the construction site.

3) Recycling and reusing waste:

- a) Recyclable waste will be separated and reused accordingly.

4) Hazardous waste:

- a) Any hazardous waste generated during the construction process, such as chemicals or batteries, will be identified and disposed of in accordance with the relevant environmental regulations and guidelines.

5) Waste management plan:

- a) A waste management plan will be developed and implemented, including regular monitoring and reporting on waste generation, segregation, and disposal practices.
- b) All personnel involved in the waste management process will receive appropriate training on proper waste handling and disposal procedures to ensure compliance with regulations and minimize environmental impacts.
- c) By implementing these waste management measures, we aim to minimize its environmental impact, protect public health, and ensure compliance with laws and regulations.

Construction waste

1) Waste management planning:

- a) A waste management plan will be developed to ensure that all construction waste is properly identified, stored, and disposed of in accordance with environmental regulations.

- b) The plan will include a schedule for waste removal to prevent accumulation of waste on the construction site for more than 7 days.

- c) The plan will identify recycling and reuse opportunities for construction waste.
- 2) Waste disposal:
 - a) All construction waste will be transported to a designated landfill or recycling facility for disposal.
 - b) Hazardous waste, such as chemicals or batteries, will be identified and disposed of in accordance with the relevant environmental regulations and guidelines.

Training and communication:

All personnel involved in the construction process will receive training on proper waste handling and disposal procedures to ensure compliance with regulations and minimize environmental impacts.

Regular communication and monitoring will be conducted to ensure that waste management practices are being followed and to identify areas for improvement.

Water Quality Management:

- a. Wastewater generated from construction equipment will be properly managed and disposed of in accordance with EPA guidelines.
- b. Wastewater from foundation excavation and concrete placement will be handled appropriately to prevent soil and water contamination.
- c. Measures will be taken to minimize the re-suspension of bottom sediment and mud caused by foundation excavation.
- d. Adequate measures will be taken to prevent soil erosion/flush away from uncovered stockpiling locations, uncovered excavation site, and unprotected slope surface during adverse weather.

By adhering to these waste management measures, we aim to ensure that the environmental impact of the construction activities is minimized and that the surrounding community is not negatively affected.

Mitigation measures to reduce potential impacts on water quality and associated surface water pollution

1. **Proper Handling and Disposal of Chemicals and Wastes:** All chemicals, construction materials, and waste will be handled and disposed of properly to prevent contamination of surface water sources. Hazardous substances will be stored in appropriate containers and removed from the site regularly by licensed and approved waste disposal companies.
2. **Prevention of Spills:** All machinery and equipment will be checked regularly to ensure that there are no oil or fuel leaks that could cause water pollution. Spill response plans will be in place, and spill kits will be available on site.
3. **Diverting Runoff:** Runoff from concrete placement and foundation excavation will be collected and diverted into appropriate drainage systems or treatment facilities before discharging into nearby water bodies.
4. **Reuse of Wastewater:** Wastewater generated from construction equipment and foundation excavation will be collected and reused for dust suppression and concrete mixing purposes wherever feasible.
5. **Education and Training:** All personnel working on the construction site will be trained on proper wastewater management practices, including the importance of preventing pollution of water sources.

4.0 General Health and Safety Concerns

Like any other undertakings, the project is likely to have several health and safety concerns both during construction and during operation. Related activities can impact the health and safety of workers and the general public. The operations will involve the use of several pieces of heavy-duty equipment. Given this type of operation, health and safety are always a major concern. Workers would be exposed to situations that can result in serious accidents, some of which can be fatal. Risks can involve accidents from the use of heavy-duty equipment, exposure to noisy equipment or general improper use of equipment, etc.

4.1 Health and Safety Measures

The following measures will be implemented as best as possible so as to ensure that the health and safety of workers and other personnel or land users are not compromised:

- The Company will comply with industrial and international best practices standards so as to ensure that health and safety issues are prevented.
- An Occupational Health and Safety Officer will be employed to oversee health and safety matters through the construction phase.
- Adequate safety gear and PPE relevant to the job will be provided to all workers.
- Required warning and safety signs will be installed throughout the construction site.
- Workers will be trained regarding their work, especially those working in hazardous conditions.
- Emergency response equipment/measures to respond to emergencies including fire, accidents, spills, etc., will be provided.
- An emergency boat will be provided on site at all times, in case persons accidentally fall into the river while working on the wharf.

5.0 Environmental Compliance

Guyamerica Construction Inc. intends to comply with all regulations and guidelines prescribed by the EPA as well as, those prescribed by other governmental entities, in all efforts to ensure that good environmental and industrial practices are maintained throughout the various phases of this project during construction and operation.