




**Environmental  
Protection  
Agency**

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## **Environmental Permit (Renewed & Modified)**

**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**

<b>Reference No.:</b>	<b>20100108- BWWTP</b>
<b>Fee:</b>	<b>Medium (C2) i.e., US\$ 800 per year</b>
<b>Fee Paid:</b>	<b>US\$4000 for Five (5) years (August 2022- July 2027)</b>
<b>Addressee:</b>	<b>Ms. Kavorn Kyte-Williams Company Secretary/Corporate Legal Officer Banks DIH Limited Thirst Park Ruimveldt Georgetown</b> 
<b>Activity:</b>	<b>Operation of a Soft Drink Plant, Wastewater Treatment Plant, Plastic Chipping Facility &amp; Wharf</b>

Banks DIH Limited., 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 Operate a Soft Drink Plant, Wastewater Treatment Plant, Plastic Chipping Facility & Wharf at Thirst Park and River Front Property (Caribanks Facility), Ruimveldt, Georgetown, hereinafter referred to as the "Project", in a manner indicated in the Application for Renewal of Environmental Authorisation submitted on October 26, 2021, and subject to the terms and conditions set forth herein under the Environmental Protection Act, Cap. 20:05, Laws of Guyana, existing and/or forthcoming Regulations made under the said Act, and/or any applicable laws, guidelines, best practices and standards relevant to this project.

**This is a Renewal and Modification of Environmental Permit, Reference 20100108- BWWTP issued on November 08, 2016 and expired on October 31, 2021.**

**The Permit Holder, His Servants, Agents and/or Sub- Contractors shall comply with the following Terms and Conditions for Operation:**



## **1.0 OPERATION**

- 1.1 Make an application to the Agency to vary this Permit in instances where it becomes necessary to:
- i. change the construction, operation, structure, or layout of the facility and all associated buildings;
  - ii. change equipment, machine, apparatus, mechanism, system or technology serving the facility;
  - iii. change the position and design of any outlet at the point or points of discharge of effluents; or
  - iv. effect any other change outlined in 20(3) of the Environmental Protection (Authorisations) Regulations.
- 1.2 Emergency spill clean-up kits shall be readily available, clearly identified and maintained at the Project site for response to spills. Kits shall contain absorbent materials, drain seals and other appropriate tools for clean-up.
- 1.3 All employees, and third parties under your direction shall be made aware of the conditions of the Environmental Authorisation and provided with training on good environmental practices. Annual training records shall be maintained on site and made available to the EPA upon request.
- 1.4 Fire prevention and control equipment shall be maintained in accordance with the **Guyana Fire Service Approval**.
- 1.5 Adhere to the requirements of the **Occupational Safety and Health Act, Cap. 99:01, Laws, of Guyana**.

## **2.0 OPERATION OF THE SOFT DRINK PLANT**

- 2.1 Operation, inspection and maintenance of Soft Drink Plant equipment, shall be in accordance with Manufacturer's Specification. Inspection and maintenance reports shall be maintained on site and made available to the EPA upon request.
- 2.2 Standard Operating Procedures (SOPs) for safe use of equipment shall be established and maintained on site and made available to the EPA upon request.
- 2.3 All tanks, pipes and valves at the Soft Drink Plant shall be labelled with the contents and colour-coded in keeping with safety procedures. Pipes shall be marked with arrows depicting directional flow.
- 2.4 Protection measures such as painting and coating shall be maintained to minimise corrosion of the tanks and pipelines.
- 2.5 All wastewater discharged from the Soft Drink Plant must be directed to Wastewater Treatment Plant for treatment prior to discharge into the environment.

- 2.6 Maintenance and/or repair of pipelines from the Soft Drink Plant to the Wastewater Treatment Plant shall be conducted in accordance to manufacturer's specification. Inspection and maintenance reports shall be maintained on site and made available to the EPA upon request.

### **3.0 OPERATION OF THE WASTEWATER TREATMENT PLANT (WWTP)**

- 3.1 Operation, inspection and maintenance of Wastewater Treatment Plant and associated equipment, shall be in accordance with Manufacturer's Specification. Inspection and maintenance reports shall be maintained on site and made available to the EPA upon request.
- 3.2 Tanks at the Treatment Plant shall be inspected for cracks and breakage to ensure they are liquid tight to withstand the hydrostatic pressure of any contained liquid when full. Inspection reports shall be maintained on site and made available to the EPA upon request.
- 3.3 Pipelines at the Wastewater Treatment Plant shall be maintained and inspected for signs of leakage to prevent unintended or untreated discharges to waterways. New pipeline routes should not be located under buildings to ensure free access for easy maintenance.
- 3.4 Periodic cleaning and maintenance of the equalization basin, aeration basin, secondary clarifier, aerobic digester and filter press shall be conducted to ensure that they are operating at their optimum capacity to reduce offensive odours and pests' nuisances. Inspection and maintenance reports shall be maintained on site and made available to the EPA upon request.

### **4.0 HANDLING & STORAGE OF CHEMICALS FOR WWTP**

- 4.1 A register of the chemicals used at the Treatment Plant shall be established and maintained. The registered information shall be maintained and submitted to the EPA upon request.
- 4.2 Emergency spill clean-up kits shall be readily available, clearly identified, and maintained at the Chemical Storage Area for response to spills. Kits must contain absorbent materials, drain seals, and other appropriate tools for clean-up.
- 4.3 Chemical Storage Areas shall be clearly labeled with "**Chemical Storage Area-Authorized Personnel Only**" where applicable as a spill control measure.
- 4.4 Safety Data Sheets (SDS) for all Chemicals shall be readily available and easily accessible at all times at the Project.
- 4.5 Chemicals shall be stored in accordance with the manufacturer's directions or Safety Data Sheet (SDS) instructions.

- 4.6 Chemicals shall be segregated and stored in accordance with their hazard characteristics compatibility e.g., toxic, flammable, corrosive, acid, etc.
- 4.7 Secondary containment (bund area) shall be maintained around storage areas of all liquid chemicals. The secondary containment shall have:
  - i. A volume equivalent to the volume of liquid stored within the largest storage container and;
  - ii. Walls constructed of impermeable materials.
- 4.8 Chemical storage containers shall be inspected for signs of leakage or corrosion and damaged containers **must be replaced immediately**. Inspection reports must be maintained and signed by the appropriate qualified inspecting officer and his/her supervisor.
- 4.9 Any chemical spills occurring during handling and loading of Chemicals, shall be immediately cleaned and disposed of as guided by the respective Safety Data Sheet, at an EPA authorized disposal facility.
- 4.10 All employees involved in the management of Chemicals shall be trained in Hazardous Material Communication and Emergency Preparedness Response. Training records shall be maintained and submitted to the EPA upon request.

## **5.0 WATER QUALITY**

- 5.1 Adhere to the provisions of the **Environmental Protection (Water Quality) Regulations, 2000**.
- 5.2 Discharge of untreated wastewater into the environment is **strictly prohibited**.
- 5.3 Install flow meter to measure on a quarterly basis effluent discharge volume. This data should be submitted annually to the EPA via the annual report.
- 5.4 Discharges from the Treatment Plant into the environment shall 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 for the general environment and should not be exceeded:

<b>Parameter</b>	<b>Daily Maximum Concentration</b>	<b>Units</b>
Flow	N/A	m <sup>3</sup> /d
pH	5.0 – 9.0	
Temperature	40	°C
Biological Oxygen Demand (BOD)	<50	mg/L



- 6.7 All exportation of chipped waste shall be conducted in accordance to the prior informed consent procedure of the Basel Convention for Transboundary Movement of Hazardous Waste and their disposal.

#### **7.0 WHARF**

- 7.1 Operation of the Wharf shall be in accordance with Maritime, Sea and River Defence and Drainage & Irrigation, Laws of Guyana and any applicable guidelines.
- 7.2 All access to the sea dam and reserve shall be kept clear and maintained in accordance with the Sea Defence Laws of Guyana.
- 7.3 Periodic maintenance of the wharf, such as painting, resurfacing, clearing of debris, or minor repairs, shall be conducted without causing any physical disruption of the watercourse.
- 7.4 A vegetated buffer zone shall be maintained along the edge of the Demerara River in order to provide bank stability.
- 7.5 The Best Available Practices shall be implemented and maintained to prevent pollution of the river from erosion, siltation, fuel/lubricants, solid waste, etc.
- 7.6 Vessels shall be moored in depths that allow them to remain afloat, but prevent propellers from disturbing bottom sediments.

#### **8.0 WASTE MANAGEMENT**

- 8.1 In accordance with the **Environmental Protection (Litter Enforcement) Regulations, 2013**, promote good sanitation and solid waste disposal practices on site. Covered garbage receptacles shall be placed upon impervious bases at strategic locations, both within and outside the facility.
- 8.2 Burning solid waste is **strictly prohibited**. All solid waste shall be disposed of by an EPA Authorised Waste Disposal Company.
- 8.3 Sludge generated from the WWTP shall be treated and solidified prior to disposal.
- 8.4 Analysis of treated sludge shall be conducted to monitor volatile solids, metals, and Faecal Coliform content prior to the final disposal. The following maximum allowable limits in accordance with US EPA Standards should not be exceeded:
- Copper (Cu) < 4300 mg/kg;
  - Lead (Pb) < 840 mg/kg;
  - Nickel (Ni) < 420 mg/kg;
  - Zinc (Zn) < 7500 mg/kg; and
  - Faecal Coliform < 2,000,000 MPN/g.

Chemical Oxygen Demand	<250	mg/L
N as HN <sub>3</sub>	<50	mg/L
Phosphorus	<512	mg/L
Total Suspended Solids (TSS)	< 100	mg/L
Total Dissolved Solid (TDS)	<500	mg/L
Fecal Coliform	<400	MPN per 100mL
Oil & Grease	<20	mg/L
Dissolved Oxygen	>4	mg/L
Chlorine	<0.00001	mg/L

A water quality monitoring plan including but not limited to sampling point/s displayed on a map and frequency of sampling shall be developed and submitted to the EPA for approval by **December 31, 2022**.

- 5.5 Ensure that effluent discharge analytical results are submitted in keeping with **"EPA's Guideline for submission of water quality data (wastewater)"**.
- 5.6 Ensure that the drainage system at the facility is maintained by conducting weekly maintenance/cleaning and visual inspections.

## **6.0 PLASTIC CHIPPING FACILITY**

- 6.1 Chemical contaminated plastics shall not be accepted for chipping.
- 6.2 The Plastic Chipper shall at all times be operated in accordance with the manufacturer's specification.\
- 6.3 Standard Operating Procedures (SOPs) for use of the Chipper shall be established and maintained on site and made available to the EPA upon request.
- 6.4 The Chipper shall at all times be mounted on an impervious base within an enclosed facility.
- 6.5 All chipping activities shall be conducted within the confines of this enclosed facility.
- 6.6 Chipped waste shall be stored in secured polyethylene bags while awaiting exportation, so as to prevent fugitive emissions into the surrounding environment

- 8.5 Treated sludge shall be covered while awaiting disposal, specifically during rainy conditions, to prevent rewetting and runoff into waterways.
- 8.6 Treated Sludge shall be collected and disposed of by an EPA Authorized Waste Disposal Company or reused where practical.
- 8.7 Good housekeeping, sanitary, and hygienic practices shall be maintained at all times. The facility's drains and surroundings shall be kept free of vegetation and litter.
- 8.8 Waste collection areas shall be kept clean. Dry methods shall be used when cleaning around waste handling and disposal areas (e.g., sweeping, use of absorbents).

#### **9.0 COMPLIANCE MONITORING AND REPORTING**

- 9.1 Notify the Environmental Protection Agency within one (1) hour of the discovery of the occurrence of environmental emergencies (e.g., oil spills, hazardous materials/wastes spill, 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). Notification as prescribed by Section 19(3)(a) of the Environmental Protection Act, shall be submitted to the EPA within twenty-four (24) hours of the discovery of the incident occurring.
- 9.2 Monitor the implementation of the conditions of this Permit, insofar as they involve adherence by your employees and all third parties under your direction.
- 9.3 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.
- 9.4 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.
- 9.5 Maintain and submit to the Agency records of the type, composition and quantity of contaminant released (i.e., any solid, liquid, gas, odour, sound, vibration, radiation, heat or combination of any of them).
- 9.6 Submit an **Annual Report** to the EPA on your compliance with this on or before **March 31, each year.**
- 9.7 Report to the Agency any non-compliance(s) with the Environmental Permit (Renewed & Modified):
  - i. Within **twenty-four (24) hours** of the time the Holder of the Environmental Permit becomes aware of the non-compliance outlining the anticipated manner in which human health or the environment may be impacted.

- ii. Within **seventy-two (72) hours** of the time the Holder of the Environmental Permit becomes aware of the non-compliance, submit to the Agency a written report containing a description of the non-compliance, its cause, the period of non-compliance including exact dates and time and the anticipated time it is expected to continue if the non-compliance(s) has not been corrected.
- 9.8 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.
- 9.9 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.

#### **10.0 INSTITUTIONAL AUTHORITY/LIABILITIES**

- 10.1 The Permit Holder shall be liable for any material environmental harm caused by polluting the environment, pursuant to s. 39 of the Environmental Protection Act, Cap. 20:05, Laws of Guyana.
- 10.2 The Permit Holder shall be liable for any serious environmental harm caused by polluting the environment, pursuant to s. 39 of the Environmental Protection Act, Cap. 20:05, Laws of Guyana.
- 10.3 The Permit Holder shall be liable for any activity that causes or is likely to cause pollution of the environment unless all reasonable and practicable measures are taken to prevent or minimize any resulting adverse effect, pursuant to s. 19 of the Environmental Protection Act, Cap. 20:05, Laws of Guyana.
- 10.4 The Permit Holder shall be liable for discharging, causing or permitting the entry into the environment, of any contaminant in any amount, concentration or level in excess of that prescribed by the regulations or stipulated by this Environmental Permit, pursuant to s. 19 of the Environmental Protection Act, Cap. 20:05, Laws of Guyana.
- 10.5 The Permit Holder shall be liable to compensate any person who suffers any loss or damage as a result of contravening conditions 10.3 and 10.4 of this Environmental Permit, pursuant to s. 19 of the Environmental Protection Act, Cap. 20:05, Laws of Guyana.
- 10.6 The Permit Holder shall not be indemnified by the Agency for any activity that causes or is likely to cause pollution to the environment, resulting from adverse effects through the discharge, any contaminant in any amount, concentration, ultra hazardous substances, chemicals or otherwise, and shall be rendered liable to prosecution and to penalties prescribed under the Environmental Protection Act



and Regulations.

- 10.7 The Permit Holder shall be liable of any gross negligence or willful misconduct caused by the Permit Holder, his Servants and/or Agents, to the environment, biodiversity, protected species and natural habitat with respect to any release, discharge, or spill, of contaminant fluids, oil or lubricants.
- 10.8 Should the Permit Holder contravene or be likely to contravene any condition of this Permit, the Agency (EPA) may serve on him an Enforcement Notice in accordance with Section 26 of the Environmental Protection Act, Cap. 20:05, Laws of Guyana.
- 10.9 Where it appears to the Agency that the Permit Holder is engaged in any activity that may pose a serious threat to natural resources or the environment, or a risk of serious pollution of the environment or any damage to public health, the EPA may issue to the Permit Holder a Prohibition Notice, which may order him to immediately cease the offending activity, in accordance with Section 27 of the Environmental Protection Act, Cap. 20:05, Laws of Guyana.
- 10.10 The EPA reserves the right to conduct regular inspections of the Permit Holder's construction activities as part of its monitoring and enforcement requirements under the Environmental Protection Act, Cap 20:05, and the Environmental Protection (Amendment) Act, 2005, and Environmental Protection (Authorisations) Regulations, 2000.
- 10.11 The Permit Holder, His Servants and/or Agents 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 Section 38 of the Environmental Protection Act, Cap. 20:05, Laws of Guyana, it is an offence to assault, obstruct or hinder an authorised 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.
- 10.12 The EPA has the right to modify, cancel or suspend this Permit for breach of any of the terms and conditions contained herein.
- 10.13 **This Environmental Permit (Renewed & Modified) is not the final consent; all relevant Permissions should be obtained from other regulatory bodies for continued operation.**
- 10.14 This Environmental Permit (Renewed & Modified) is effective for the period stipulated herein; **August, 2022 to July, 2027.**
- 10.15 This Environmental Permit (Renewed & Modified) shall remain valid until **July 31, 2027** unless otherwise suspended, cancelled, modified or varied, in accordance with the provisions of this Permit or the Environmental Protection

Act, Cap. 20:05, Laws of Guyana, Environmental Protection (Amendment) Act, 2005, and the Environmental Protection (Authorisations) Regulations, 2000.

- 10.16 This Permit must be renewed by submitting a completed *Application Form for Renewal of Environmental Authorization* to the Agency at least six months before this Permit expires, that is, no later than **January 31, 2027**.
- 10.17 Any late submission of renewal application after the specified date as stated above, the Agency may 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\$2000.00) per day for every business day late**, until such renewal application is submitted to the Agency, without prejudice to any other rights of the Permit Holder in connection therewith.
- 10.18 Failure to comply with the requirements of this Permit (Modified) 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.

  
**Kemraj Parsram**  
**Executive Director**  
  
Executive Director  
2022-08-26

Date \_\_\_\_\_

**I hereby accept the above terms and conditions upon which this Environmental Permit (Renewed & Modified) 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 existing or forthcoming regulations, guidelines, best practices and standards made under this Act.**

<b>NAME:</b>	AFESHA BURKE
<b>DESIGNATION:</b>	ENVIRONMENT & SAFETY EXECUTIVE
<b>SIGNATURE:</b>	Burke for Mr. Kyte-Williams
<b>DATE:</b>	19-09-2022



