



Environmental Protection Agency

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Environmental Permit (Renewed)

(Issued under the Environmental Protection Act, Cap. 20:05, the Environmental Protection (Amendment) Act, 2005, and the Environmental Protection (Authorisations) Regulations, 2000)

Reference No.:	20210219-ACPBC
Fee:	Extra-Large (C3) - US\$3,100 per year
Fees Paid:	US\$ 15,500 for five (5) years – October, 2022 to September, 2027

Addressee(s): **Demerara Harbour Bridge Corporation
Demerara Harbour Bridge – Asphalt Plant
Garden of Eden,
East Bank Demerara.**

Activity: Operation of an Asphalt Plant

Demerara Harbour Bridge Corporation, trading and operating under the name Demerara Harbour Bridge – Asphalt Plant, 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 an Asphalt Plant, situated at Garden of Eden, East Bank Demerara, Guyana, hereinafter referred to as the “Project” in a manner indicated in the Application for Renewal of Environmental Authorisation dated April 22, 2022, subject to the terms and conditions set forth herein under the Environmental Protection Act, existing or forthcoming regulations made under the said Act and/or any other applicable Laws of Guyana, best practices, guidelines and standards relevant to this project.

This is a Renewal of the Construction Permit, Reference # 20210219-ACPBC, issued on April 20, 2021, which expired on March 31, 2022. This Environmental Permit (Renewed) is issued pursuant to the Environmental Protection (Authorisations) Regulations, 2000.

The Permit Holder, his Servants, Agents and/or Sub-Contractor(s) shall comply with the following Terms and Conditions for Operation:

1.0 INFRASTRUCTURE

- 1.1 Notify the Agency in writing of any proposed changes in the operation of the Asphalt Plant at least **fourteen (14) days before** making the change. The notification shall contain a **description of the proposed change in operation**. It is not necessary to make such a notification if **an application to vary** this permit has been made and the Application contains a description of the proposed change. In this condition '**change in operation**' includes but is not limited to, any change in the nature or functioning, or an extension, of the installation, which may have consequences for the environment.

Note: For more information, please see **Regulation 20** of the **Environmental Protection (Authorisations) Regulations 2000**.

- 1.2 At all times operate the Asphalt Plant in a manner that will cause minimal adverse impact on public health and the environment.
- 1.3 Create a buffer zone (vegetation or otherwise) around the perimeter of the Project to mitigate the impacts of noise and dust on the surrounding environment.
- 1.4 Maintain the access road to avoid erosion and sedimentation into surrounding waterways.
- 1.5 Implement measures to prevent the escape of fugitive dust from the site, e.g., location and stockpiles and maintenance of roads.
- 1.6 Maintain an enclosure for loading asphalt to mitigate the impact of fumes.
- 1.7 During the Operation of the Asphalt Plant, ensure all fuel is stored away from ignition sources and have 'No Smoking' signs posted where fuel is handled or stored.
- 1.8 Ensure adequate post-hazard and warning information is clearly and visibly placed in the work area.

2.0 TRAFFIC MANAGEMENT AND PUBLIC SAFETY

- 2.1 Take all necessary precautions to minimise potential adverse impacts on Public Health and the Environment in the transport, storage and handling of operational materials including crusher run, bitumen, siftings and sand that will emanate as a result of the Operation of the Asphalt Plant.
- 2.2 Ensure that Contractors adhere to a site-specific Traffic Management Plan, so as to ensure that suitable provisions are made to accommodate all vehicular and pedestrian traffic safely with a minimum of inconvenience through and around the construction works.

- 2.3 Notify the public of the estimated duration of the project, estimated times of works, and expected difficulties, e.g., road closures and diversions, etc. that may occur as a result of operation at least **two (2) weeks** in advance.
- 2.4 Ensure that adequate traffic control devices, signage, guardrails and caution tape, are installed at work sites. Additionally, ensure that a speed limit is enforced to control traffic speed within the operation area of the Asphalt Plant.
- 2.5 Precautionary measures should be taken for the safe haulage of the materials so that there is no spillover during transportation on the road networks.
- 2.6 Develop a Fire Prevention Plan and Emergency Response Plan in accordance with recommendations from Guyana Fire Service. These plans should be submitted to the Agency **within four (4) months of issuance of Permit.**

3.0 EMPLOYEES' SAFETY AND HEALTH

- 3.1 Ensure that First Aid Kits and Spill Containment Kits are kept onsite.
- 3.2 Ensure an updated Evacuation Plan is maintained and posted at strategic locations.
- 3.3 Ensure that workers, at all times relevant to their activity at the processing plant, wear Personal Protective Equipment such as protective head gear, construction boots, appropriate dust mask, etc. throughout the operation phase.
- 3.4 Ensure that adequate restroom/areas, waste disposal and sanitary facilities are provided at this site and all construction sites for workers.
- 3.5 Ensure training is conducted for all employees in the areas of Occupational Safety and Health, first aid response, emergency response and firefighting.
- 3.6 Ensure the Fire Safety Certificate is renewed annually and all firefighting equipment are maintained and serviced regularly. Fire Safety Certificate should be submitted to officers upon request during compliance inspection and in the Annual Report.
- 3.7 Employees should not work shifts in excess of eight hours to reduce fatigue and risks of accidents/injuries onsite.
- 3.8 Eye wash fountains and emergency showers should be installed for emergency use.

4.0 NOISE AND AIR QUALITY MANAGEMENT

- 4.1 Strictly Comply with the **Environmental Protection (Air Quality) Regulations, 2000** and the **Environmental Protection (Noise Management) Regulations 2000.**

- 4.2 Comply with the Guyana National Bureau of Standards (GNBS) Guidelines for Noise Emissions into the Environment at a distance of **15 m (50 ft)** from the source or at the location of the nearest receptor, whichever is closer.
- **Industrial Limits** not exceeding
100 dB - daytime (06:00h–18:00h) and
80 dB - night time (18:00h – 06:00h)
- 4.3 Ensure that all sound-making devices such as generators, machines, etc., are suitably equipped with silencers or mufflers to reduce noise emission levels and are placed on a foundation that is properly designed to ensure effective damping of vibrations. Additionally, ensure adequate equipment maintenance is provided and obsolete tools and equipment are replaced.
- 4.4 Implement dust control measures at point sources to minimise dust pollution during the operation of the Asphalt Plant.
- 4.5 Stockpiled materials must be protected, by tarpaulin and or permanent cover and windbreaker from wind dispersal throughout the project site and beyond.
- 4.6 Implement good housekeeping practices to avoid or minimise the accumulation of dusty materials that have the potential to become airborne, and prompt immediate cleanup of spilled or accumulated materials.
- 4.7 All vehicles transporting raw materials to the site and finished materials from the site must be suitably covered/enclosed.
- 4.8 Asphalt plants shall follow appropriate measures to prevent pollution and to ensure that:
- 4.8.1 All production machinery and equipment are serviced on a regularly scheduled basis per manufacturer's specifications and upgraded, if necessary, in order to meet minimum particulate emission criteria levels; and,
 - 4.8.2 The proper operational procedures, equipment maintenance and operator training are provided to ensure the efficient performance of the equipment.
- 4.9 Excessive emissions of fugitive dust and or odours from any part of the operation, which cause complaints, may necessitate in-stack and or ambient air monitoring, and or the installation of additional air pollution control equipment.
- 4.10 Monitor Air Quality in accordance to the approved comply with the *World Health Organisation (WHO) Air Quality Guidelines for Particulate Matter in the Environment*, not exceeding the limits below:

PM_{2.5}: 10 µg/m³ annual mean
25 µg/m³ 24-hour mean

PM₁₀: 20 µg/m³ annual mean
50 µg/m³ 24-hour mean

4.11 Comply with the *World Health Organisation (WHO) Air Quality Guidelines for Air pollutants in the Environment*, not exceeding the limits below, and not limited to the list of pollutants:

- CO - 9 ppm (8h)
- H₂S - 10ppm (8h)
- NO₂ - 0.1ppm
- VOC - 100 ppm

4.12 Conduct Air Quality Monitoring as per conditions 4.10 and 4.11 on a quarterly basis. Proposed sample points should be submitted to the EPA for approval prior to monitoring. A monitoring report should be submitted to the Agency as part of the requirements for Annual Report cited at **Condition 7.9**.

5.0 SOIL AND WATER QUALITY MANAGEMENT

- 5.1 Take necessary precautions to avoid soil compaction, erosion, siltation and sedimentation during operation by limiting the size of areas that would be disturbed, slope length and gradient and the duration of soil exposure.
- 5.2 Store stockpile materials including production waste in a secured, designated area, and protected from wind and water erosion. Materials should not be placed within 10m of a watercourse or drain.
- 5.3 Avoid soil and water contamination from fuel, grease, waste oils and other petroleum products. Store all oils, fuel, paints and chemicals in a designated area, 10m away from watercourses on an impervious base to minimise adverse impacts to the environment in the event of spillage.
- 5.4 Limit the removal of vegetation to the extent necessary for works to proceed. In areas where soils are not to be removed, the grassed vegetation layer shall be maintained, where possible, to protect the soil from erosion and compaction.
- 5.5 Monitor point of release of internal drainage system before release into the surrounding drainage twice per year (June and December) and submit results, analysis and methodology used and atmospheric conditions at the time the test was conducted to the Agency.
- 5.6 Maintain all surface drains ensuring that it is clear and free flowing and monitor regularly for blockage of same and immediately clean drain/canal if blockage is discovered.

- 5.7 Do not discharge wastewater effluent directly into receiving waters without prior treatment. A silt trap should be installed on-site mainly to collect runoff to be discharged into external drains.
- 5.8 Ensure all wastewater from the operation is treated via the three-stage precipitation tank to remove sediments prior to discharge and the pH of the water is monitored before release.
- 5.9 Conduct biannual water quality testing at the discharge points of the site for **Dissolved Oxygen and pH** and submit those results to the Agency as part of the requirements for Annual Report cited at **Condition 7.9**.
- 6.0 HAZARDOUS MATERIALS/WASTE MANAGEMENT**
- 6.1 **Comply with the Environmental Protection (Litter Enforcement) Regulations, 2013 and the Environmental Protection (Hazardous Waste Management) Regulations, 2000.**
- 6.2 Prepare and submit to the Agency no later than **forty-five (45) days** after the end of the operating year, a report relating to the activities for the previous year. The report shall include:
- The identification information of the project.
 - Type and quantities of hazardous waste generated.
 - Data concerning off-site shipments of waste.
 - Any applied treatment standards.
 - A summary of any accidents that may have occurred and any action taken.
 - Any waste minimization efforts undertaken by the generator.
 - A pollution prevention plan for the project.
 - Any other matter the Agency may require.
- 6.3 The Agency considers all materials listed in Schedule I and II of the Environmental Protection (Hazardous Wastes Management) Regulations, 2000, to be hazardous.
- 6.4 Submit the report of activities for the previous year in an electronic format acceptable to the Agency along with a hard copy which should be signed by the holder of the Authorisation.
- 6.5 Comply with the submitted ESMP Emergency Preparedness Plan.
- 6.6 Keep on-site books, documents, records or things showing, as the case may be:
- The number of hazardous wastes generated stored, treated, transported or disposed of.
 - The dates pertinent to the activities referred to above.
 - Signed copies of manifests.
 - Records of test results, waste analyses, permits and standard conditions required by any authorisation.

- And any information as the Agency may require.
- 6.7 Ensure that oil/fuel containment adsorbent materials are appropriately stored in slop tanks and disposed of in a manner approved by the EPA.
 - 6.8 Store, fuel and waste oil in an impervious, bunded area (secondary containment) to minimise adverse impacts on the environment in the event of spillage. The bunded area must be able to provide 110 percent containment of the largest container/volume of fuel/waste oil stored within it.
 - 6.9 Containment (bunded area) must have a relief valve inserted to regulate, direct or control the flow of the fluid in the instance that there is ponding or spill of fluid within the enclosed area.
 - 6.10 Store all fuel waste above ground level to allow easy maintenance and leak detection.
 - 6.11 Store fuel in a cool, dry place, away from any motor-driven machine that can cause sparks.
 - 6.12 Ensure that all chemicals used as part of the process are handled, stored and disposed of in accordance with the Material Safety Data Sheet (MSDS)/ Safety Data Sheet (SDS) and copies of MSDS/SDS sheets are located in central areas accessible to all staff on site and employees are aware of same.
 - 6.13 Ensure that insect and rodent control measures are implemented by a Person or Company certified by the Pesticide and Chemical Control Board to handle pesticides.
 - 6.14 Maintain a septic system on site at all times. The septic tank should not be located within 1.5 m of a building or property boundary and should be accessible for cleaning and de-sludging. Any modification to the Septic tank must be in accordance with the Guyana National Bureau of Standards (GNBS) *Code of Practice for the Design and Construction of Septic Tanks and Associated Secondary Treatment and Disposal Systems*.
 - 6.15 Promote good sanitation and solid waste disposal practices at construction sites. In particular, dispose of waste, including liquid/septic wastes at an approved landfill site. Covered garbage receptacles must be placed at strategic locations on sites.
 - 6.16 Promote waste minimisation and the reuse and or recycling of waste materials and other suitable materials where practical. Topsoil/overburden and other inert construction wastes/materials should be reused, e.g., for reclamation/landscaping after construction (future) works are completed.
 - 6.17 Ensure the project site is kept clear, and free of all debris, solid waste and other extraneous matter.
 - 6.18 Ensure that all wastes are sorted in order to separate reusable/recyclable materials.

Hazardous wastes must be properly stored in segregated, leak-proof containers at an appropriate on-site facility until ready for disposal. Disposal of hazardous waste shall be done in a manner approved by the EPA.

7.0 COMPLIANCE MONITORING AND REPORTING

- 7.1 Notify the Environmental Protection Agency within **twenty-four (24) hours** of the occurrence of any 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).
- 7.2 Strictly comply with any lawful directions given by the Agency from time to time in furtherance of the implementation of any international or other obligation for the environmental protection of Guyana.
- 7.3 Maintain and submit to the Agency records of the type, composition and quantity of contaminant (i.e., any solid, liquid, gas, odour, sound, vibration, radiation, heat or combination of any of them) released.
- 7.4 Notify the EPA of any non-compliance with any of the conditions of this Permit and of any accidental discharge of environmental contaminants.
- 7.5 Monitor the implementation of the conditions of this Permit, insofar as they involve adherence by your employees and all third parties under your direction.
- 7.6 Implement the Monitoring Protocol and processes stipulated in the Extended Environmental and Social Management Plan (ESMP) when submitted and approved by the EPA.
- 7.7 Make all employees/contractors aware of the Conditions of the Operation Permit and provide training on good environmental management practices.
- 7.8 Report to the Agency any non-compliance(s) with the environmental authorisation:
 - 7.8.1 Within twenty-four (24) hours of the time the Holder of the environmental authorisation becomes aware of the non-compliance(s), and the anticipated manner in which it may endanger human health or the environment.
 - 7.8.2 Within seventy-two (72) hours, submit to the Agency a written report containing a description of the non-compliance(s), its cause and the period of non-compliance(s) including exact dates and time.
 - 7.8.3 Submit a report to the Agency indicating the reasons and the anticipated time it is expected to continue if the non-compliance(s) has not been corrected.

- 7.9 Submit an **Annual Report** to the EPA on the progress of the operation and compliance with the conditions under which this Permit was granted on or before **April 31** of each year.
- 7.10 Create and submit to the Agency a Grievance Plan for the management of complaints related to possible pollution by the Asphalt Plant.

8.0 INSTITUTIONAL AUTHORITY/LIABILITIES

- 8.1 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.**
- 8.2 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.**
- 8.3 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.**
- 8.4 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 excess of that prescribed by the regulations or stipulated by this Environmental Permit (Renewed), pursuant to **s. 19 of the Environmental Protection Act, Cap. 20:05, Laws of Guyana.**
- 8.5 The Permit Holder shall be liable to compensate any person who suffers any loss or damage as a result of contravening conditions 6.3 and 6.4 of this Environmental Permit (Renewed), pursuant to **s. 19 of the Environmental Protection Act, Cap. 20:05, Laws of Guyana.**
- 8.6 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.
- 8.7 The Permit Holder shall be liable of any gross negligence or wilful 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.

- 8.8 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**.
- 8.9 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**.
- 8.10 The EPA reserves the right to conduct regular inspections of the Permit Holder's activities as part of its monitoring and enforcement requirements under the Environmental Protection Act, Cap 20:05, the **Environmental Protection (Amendment) Act, 2005**, and **Environmental Protection (Authorisations) Regulations, 2000**.
- 8.11 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.
- 8.12 The EPA has the right to modify, cancel or suspend this Permit for breach of any of the terms and conditions contained herein.
- 8.13 **This Environmental Permit (Renewed) is not the final consent; all relevant Permissions shall be obtained from other regulatory bodies before commencing construction activities.**
- 8.14 This Environmental Permit (Renewed) is effective for the period stipulated herein, **October, 2022 to September, 2027**.
- 8.15 This Environmental Permit (Renewed) shall remain valid until **September 30, 2027**, unless otherwise suspended, cancelled, modified or varied, in accordance with the **Environmental Protection Act, Cap. 20:05, Laws of Guyana, Environmental Protection (Amendment) Act, 2005**, and the **Environmental Protection (Authorisations) Regulations, 2000**.

- 8.16 This Environmental Permit (Renewed) shall be renewed by submitting "an Application for Renewal of Environmental Authorisation to the Agency at least six (6) months before this Permit expires, that is, no later than **March 31, 2027**.
- 8.17 Any late submission of renewal application(s) after the specified date as stated above, may require the Permit Holder to pay, in addition to renewal fees, 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.
- 8.18 Failure to comply with the requirements of this Permit 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

Date

2022.10.20

I hereby accept the above Terms and Conditions upon which this Operation Permit is granted and agree to abide by the Environmental Protection Act, Cap.20:05, Laws of Guyana, the Environmental Protection (Amendment) Act, 2005, the Environmental Protection (Authorisations) Regulations, 2000, and any forthcoming regulations, best practices, guidelines and standards made under this Act.

S.B

Operation Permit Ref. No. 20210219-ACPBC

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

NAME:	SOPHIE BOWEN
DESIGNATION:	PROCUREMENT ASSISTANT
DATE:	21 st October, 2022
SIGNATURE:	

