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# **Environmental Permit**

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.

Reference No.:	20200110- UGFHS
Fee:	Large (C2) - US\$2000 per year
Fees Paid:	US\$6,000 three (3) years (August 2021 - July 2024)

Addressee:

**Mr. Emmanuel Cummings** 

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**Faculty of Health Sciences** 

**University of Guyana** 

Turkeyen Georgetown Guyana

Attn:

Mr. Patrick John Project Coordinator

Guyana Education Sector Improvement Project

**Ministry of Education Annex** 

109 Barima Avenue

**Bel Air** 

**Activity: Construction of New Faculty of Health Sciences Building** 

University of Guyana, herein referred to as the "Permit Holder", is hereby authorised 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, to construct a New Faculty of Health Sciences Building at Area M of Area L, University of Guyana, Turkeyen, Greater Georgetown, Guyana hereinafter referred to as "the Project", in the manner indicated in the Application submitted on January 10, 2020, subject to the terms and conditions set forth herein under the Environmental Protection Act, existing and/or forthcoming regulations made under the said Act, and/or any other applicable laws, best practices, guidelines and standards relevant to this project.

The Permit Holder, his Servants, Agents and Sub-Contractors shall comply with the Terms and Conditions for construction:

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## 1.0 INFRASTRUCTURE

1.1 Notify the Agency in writing of any proposed changes in construction of the new Faculty of Health Sciences building at least **fourteen (14) days before** making the change. The notification shall contain a **description of the proposed change in construction**. 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 construction'** 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 refer to **Regulation 20** of the **Environmental Protection (Authorisations) Regulations 2000**.

- 1.2 Submit a Construction Environmental and Social Management Plan within **three (3)** months of issuance of this Environmental Permit.
- 1.3 Utilise the land in accordance with the plan submitted to the Agency. All specifications of location, pathways, reserve and boundary lines must be adhered to, unless otherwise authorised; evidence of which must be provided to the Agency.
- 1.4 Avoid construction works between 22:00 hrs to 06:00 hrs on any day unless approval is sought and granted from the Agency prior. This requirement does not apply for large concrete pours where work in the early morning and late evening is required.
- 1.5 Take necessary precautions to avoid erosion, siltation and sedimentation of existing water bodies/drains within the vicinity of the project site during the construction phase of the Faculty of Health Sciences Building.
- 1.6 Ensure that employees are at all times, equipped with appropriate protective gear during construction such as protective headgear, respirators, safety vests, construction boots, etc.
- 1.7 Ensure that all excavated materials are handled in such a way to not negatively impact habitats or pose a significant hazard to human health and the environment.
- 1.8 Identify suitable areas for material stockpile and equipment during construction.
- 1.9 Avoid any road traffic hazards or unnecessary inconveniences to the general public through appropriate planning and management of the construction site.
- 1.10 Remove all construction tools, equipment, machinery, and waste material from site on the completion of construction works.

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- 1.11 Ensure alternative access for students is adequate, safe and takes into consideration handicap access.
- 1.12 Ensure construction works do not negatively affect operation of the Health Sciences Canteen.

## 2.0 WATER AND SOIL QUALITY MANAGEMENT

- 2.1 Maintain the integrity of the existing waterways at all times. Discharges into the environment must 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 this type of project and should not be exceeded:
  - pH 5.0-9.0;
  - Temperature < 40 °C;</li>
  - Biological Oxygen Demand (BOD) < 50 mg/L;</li>
  - Chemical Oxygen Demand (COD) < 250 mg/L;
  - Total Suspended Solid (TSS) < 50 mg/L; and
  - Oil and Grease < 10 mg/L.</li>
- 2.2 Avoid soil and water contamination from fuel, grease, waste oils and other petroleum products that might be used at the construction site. Ensure to store all oils, fuel, paints and chemicals in a designated area which must be as far away as practical from surrounding water bodies.
- 2.3 As fas as practical, conduct refueling, oil changes and maintenance of vehicles, machinery and other equipment on an impervious base. Spills should be cleaned-up by the best practicable means.
- 2.4 Adequately store and/or cover temporary stockpiles of construction materials, excavated waste and fuel in a secured designated area to prevent accidental release into the surrounding environment, especially in rainy conditions. The designated area should not be placed within 10 m of surrounding water bodies.
- 2.5 Do not discharge wastewater and/or trade effluent directly into receiving waters without prior treatment.
- 2.6 Avoid excessive or inappropriate use of cleaning chemicals. Use of biodegradable/water-based cleaning products is encouraged.
- 2.7 Construct and maintain drainage systems capable of handling the probable maximum precipitation storm event.
- 2.8 Disposal of excavated materials into surrounding drains is strictly prohibited.

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# 3.0 NOISE ABATEMENT AND AIR QUALITY MANAGEMENT

- 3.1 Comply with the Environmental Protection (Air Quality) Regulations, 2000 and the Environmental Protection (Noise Management) Regulations 2000.
- 3.2 Comply with the Guyana National Bureau of Standards (GNBS) *Guidelines for Noise Emissions into the Environment*. Sound levels from noise-making devices should not exceed the limits below, at a distance of 15 metres (50 ft) from the source or property boundary, whichever is closer.
  - **Construction Limits:90 dB** during the daytime (06:00 h 18:00 h) 75 **dB** during the night-time (18:00 h 06:00 h)
- 3.3 Ensure that all construction activities are done in such a manner so as to prevent, minimise, control and or avoid adverse noise nuisance to the surrounding environment.
- 3.4 Ensure that all sound-making devices, such as generators, are housed in enclosures constructed with materials of good insulation properties (e.g. hollow concrete blocks, insulation boards, solid clay bricks, etc.), equipped with silencers/mufflers to reduce the noise level; and placed on foundations properly designed to ensure effective damping of vibrations. Adequate equipment maintenance must be done and any obsolete tools and equipment replaced.
- 3.5 Employ dust suppression methods such as watering, erecting dust screens/fences to control dust emissions from material stockpiles and other components of the development that would generate dust.
- 3.6 In the event that materials have to be transported to the construction site, ensure that all trucks used to transport construction materials to the site are covered.
- 3.7 Ensure that appropriate measures are in place to minimise the impacts of air borne emissions from vehicles offloading and/or loading building materials.
- 3.8 Comply with the World Health Organisation (WHO) Air Quality Guidelines for Particulate Matter in the Environment, not exceeding the limits below:

**PM<sub>2.5</sub>:**  $25 \mu g/m^3 24$ -hour mean

**PM<sub>10</sub>**: 50 μg/m<sup>3</sup> 24-hour mean

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## 4.0 FUEL AND HAZARDOUS/ WASTE MANAGEMENT

- 4.1 Adhere to the provisions of the Environmental Protection (Litter Enforcement) Regulations 2013 and the Environmental Protection (Hazardous Waste Managament) Regulations, 2000.
- 4.2 Maintain good house-keeping, sanitary and hygienic practices and the aesthetic quality of the surroundings at all times.
- 4.3 Promote proper solid waste management and disposal practices at the facility. In particular, dispose of waste at the nearest designated waste management site or contract a Disposal Service that services the area to dispose of waste at a legal designated site. Place covered garbage receptacles at strategic locations around the project site.
- 4.4 Reuse waste material where practical such as land-filling material for the revetment of the general compound surroundings. However, this must be done in an aesthetic and controlled manner. The surrounding environment should not be littered with any form of wood, concrete, plastic, glass and metallic waste or any form of waste that will affect humans, flora and fauna and related biodiversity.
- 4.5 Dumping of solid waste (Domestic and Construction) into the surrounding environment is strictly **prohibited**. Waste must be stored in a designated area.
- 4.6 Ensure that well-maintained sanitary facilities are provided for employees on site. In the event portable toilets and or septic system are used:
- 4.6.1 Ensure that portable toilets are installed in accordance with the Public Health Ordinance 1953;
- 4.6.2 Ensure all portable toilet systems are emptied by the contracted Waste Disposal Services on a regular basis. Waste collected from the portable toilet should be treated before disposal and at no time should the waste be disposed of in the surrounding environment; and or
- 4.6.3 Construct and 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 tanks 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.
- 4.7 Adhere to the provisions of the Environmental Protection (Hazardous Waste Management) Regulations 2000.

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- 4.8 Prepare and submit to the Agency at the end of construction, a report relating to the activities for the previous year. The report shall include:
  - (a) the name, location and type of facility;
  - (b) types and quantities (in metric units) of hazardous waste generated;
  - (c) manner of storage, use, any applied treatment standards/methods and disposal of these substances;
  - (d) data concerning off-site shipments of waste, i.e. local disposal facility utilised, country to which hazardous waste is shipped, purpose of shipment and amount of waste shipped;
  - (e) a summary of any accidents that may have occurred and any action taken; any waste minimisation efforts undertaken by your facility for hazardous material/waste; and any other matter the Agency may require.
  - (f) Any waste minimisation efforts undertaken by your facility for hazardous material/waste; and
  - (g) Any other matter the Agency may require.

The Agency considers all materials listed in Schedules I and II of the Environmental Protection (Hazardous Waste Management) Regulations, 2000, to be hazardous.

- 4.9 In the event that waste oil is stored, it should be stored in a covered, bunded area to minimise adverse impacts to the environment in the event of spillage.
- 4.10 Store all fuel away from ignition sources and have 'No Smoking' signs posted where fuel is handled or stored.
- 4.11 Ensure that oil/fuel containment absorbent materials are appropriately stored in a concrete-based structure and away from water ways and disposed by double wrapping in heavy duty garbage bags and disposed of at an approved solid waste disposal site.
- 4.12 Maintain an impervious secondary containment bund which should have at least 110% containment capacity around all fuel storage tanks, creating a temporary holding area in the event of spillage.
- 4.13 Limit access to hazardous waste storage areas to employees who are authorised and have received proper training.
- 4.14 Record and include in a summary table the following information:
  - (a) Name and description (e.g. composition of a mixture) of the hazardous materials:
  - (b) Classification (e.g. code, class or division) of the hazardous materials;
  - (c) Quantity of hazardous materials used per month; and
  - (d) Characteristic(s) that make(s) the materials hazardous (e.g. flammability, toxicity).

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- 4.15 Treat and contain spills of even minor in nature with absorbent materials.
- 4.16 Designate an area for the storage of the following:

Fuel;

First Aid Kit(s); and

Washing detergents; and Sanitizers (J's Fluid, Pine Sol, etc.) for the facility.

## 5.0 EMERGENCY MANAGEMENT

- 5.1 Submit recommended Fire Saftey Requirements for the Building Application from the Guyana Fire Service.
- 5.2 At the end of the construction period submit approval from the Guyana Fire Service and provide fire protection measures such as fire extinguishers and sand buckets in accordance with this approval.
- 5.3 Ensure all employees are trained in the use of firefighting equipment, such as, fire extinguishers and understand the firefighting protocol.
- 5.4 Prepare an Evacuation Plan and ensure it is posted at strategic locations after end of construction.
- 5.5 Ensure all employees are aware of the Emergency Response Plan, and their duties and responsibilities according to these plans.
- 5.6 Ensure at all times the working environment is monitored for occupational hazards relevant to the specific construction activities of building.

## 6.0 COMPLIANCE MONITORING AND REPORTING

- 6.1 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.
- 6.2 Monitor the implementation of the conditions of this Environmental Permit, insofar as they involve adherence by employees and all third parties under your direction.
- 6.3 Report to the Agency any non-compliance(s) with this Environmental Permit:
  - 6.3.1 Within **twenty-four (24) hours** of the time the Holder of the Environmental Permit becomes aware of the non-compliance(s), the anticipated manner in which it may endanger human health or the environment.

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- 6.3.2 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 including exact dates and time.
- 6.3.3 Submit a report to the Agency indicating the reasons and the anticipated time it is expected to continue if the non-compliance has not been corrected.
- 6.4 Submit an **End of Project Report** to the EPA on your compliance with this Permit.
- 6.6 Notify the EPA within **twenty-four (24) hours** of the occurrence of any environmental emergencies such as a sudden onset of disaster, accident, natural, technological or human induced factors that cause or threaten to cause severe environmental damage as well as harm to human health or livelihood.
- 6.5 Inform the Agency prior to or within **thirty (30) days** of any change of name or ownership of the project.
- 6.6 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.

# 7.0 INSTITUTIONAL AUTHORITY/LIABILITIES

- 7.1 The Permit Holder shall be strictly liable for any loss or damage to the environment through any act caused intentionally or recklessly, through the adverse effect of any discharge or release, or cause or permit the entry of pollution, contaminant in any amount, concentration or level in excess of that prescribed by the regulations or stipulated by this Environmental Permit, which are attributed to the Project, pursuant to s. 39 and s. 19 (1) and (2) of the Environmental Protection Act, Cap. 20:05, Laws of Guyana.
- 7.2 The Permit holder shall be guilty of an offence in accordance with s. 39 (1), (2), (3) and (4) of the Environmental Protection Act, Cap. 20:05, Laws of Guyana, which attribute liability for causing material or serious environmental harm by polluting the environment intentionally or recklessly and with the knowledge that material and/or serious environmental harm will or might result. If found guilty of an offence the Permit Holder shall be liable to the penalties prescribed under the said Act.
- 7.3 The Permit Holder shall compensate any Party who suffers any loss or damage as a result of the attributed Project (See: s. 19 (3)(e) of the Environmental Protection Act, Cap. 20:05, Laws of Guyana.)
- 7.4 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

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prosecution and to penalties prescribed under the Environmental Protection Act and Regulations.

- 7.5 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.
- 7.6 The EPA shall notify the Permit Holder immediately of any written claim or notice sent by any Complainant seeking loss or damage for negligence as a result of the Permit Holder lack of due care and diligence.
- 7.7 Should the Permit Holder contravene or is likely to contravene any condition of this Permit, the Agency (EPA) may serve on him an enforcement notice in accordance with s. 26 of the Environmental Protection Act, Cap. 20:05, Laws of Guyana.
- 7.8 Where it appears to the Agency that the Permit Holder is engaged in any activity that may pose serious threat to natural resources or serious pollution of the Environment or any damage to public health, issue to the Permit Holder, a Prohibition Notice, which may order him to immediately cease the offending activity, in accordance with s. 27 of the Environmental Protection Act, Cap. 20:05, Laws of Guyana.
- 7.9 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.
- 7.10 The Permit Holder 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 s.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.
- 7.11 The EPA shall have the right to cancel or suspend this Permit for breach of any of the terms and conditions contained herein.
- 7.12 The Permit Holder is obligated to ensure that the construction of the Faculty of Health Sciences Building is permitted by other relevant authorities.
- 7.13 This Environmental Permit is effective for the period stipulated herein, **August 2021** to **July, 2024.**

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- 7.14 This Environmental Permit shall remain valid until **July 31, 2024**, 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.
- 7.15 In the event it is forseen that the construction phase will go beyond the permitting period, this Environmental Permit must be renewed by submitting a completed Application Form for Renewal of Environmental Authorisation to the Agency at least six months before this Permit expires, that is, no later than **January 31, 2024.**
- Any late submission of renewal application(s) after the specified date as stated above, shall 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 (\$2,000.00) 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.
- 7.17 Failure to comply with the requirements of this Permit shall render the Permit Holder liable to prosecution and to civil penalties and/or injunctive reliefs prescribed under the Environmental Protection Act, Cap. 20:05, Laws of Guyana, the Environmental Protection (Amendment) Act, 2005, and the Environmental Protection Regulations, including under any existing and forthcoming regulations made under the said Act or any other applicable Laws of Guyana.

Signed by

on behalf of the Environmental Protection Agency.

Kemraj Parsram
Executive Director

Date

13.08.2021

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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.

I hereby accept the above Terms and Conditions upon which this Environmental 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.

NAME:

Dr Emonuel Cumnings

SIGNATURE:

DESIGNATION:

DE PUTY VICE CHANCELLOR
ACADEONIC ENGAGEMENT

DATE:

12th November 2021

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