



Environmental Protection Agency

Ganges Street, Sophia
Georgetown, GUYANA
Tel. : (592) 225-2062 / 1218 / 0506/
6917/ 5467
Fax: (592) 225-5481
Email: epa@epaguyana
Website: www.epaguyana.org

Construction Permit

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

Reference No :	20171004-HSPPK
Fee :	Medium (C2) - US\$ 800 (one year)
Fees Paid:	US \$ 800 (May, 2020 to April, 2021)
Re Issue:	December 09, 2020
Addressee:	Mr Horace Williams Hinterland Electrification Company Inc. Ministry of Public Infrastructure Wight's Lane Kingston Georgetown.
Activity:	Construction of a Solar Photovoltaic Grid-Connected System.

ENVIRONMENTAL PROTECTION AGENCY
Database Updated

Asaudia 10 Dec 2020

Mr Horace Williams, operating on behalf of the Hinterland Electrification Company Inc, hereinafter referred to as the "Permit Holder", is hereby authorized in accordance with the Environmental Protection Act, Cap. 20:05, Laws of Guyana, the Environmental Protection (Amendment) Act, 2005, and the Environmental Protection (Authorisations) Regulations, 2000, to Construct a 400 KW Solar Photovoltaic Grid-Connected System to be located at Port Kaituma, Region 1, hereinafter referred to as "the Project", in the manner indicated in the application submitted on October 04, 2017, subject to the terms and conditions set forth herein and any forthcoming regulations made under the said Environmental Protection Act and/or any other applicable laws, best practices, guidelines and standards relevant to this project.

Terms and Conditions for Operation to be adhered to by the Permit Holder:

1. GENERAL:

- 1.1 Notify the Agency in writing and obtain its approval for **ANY** proposed changes in constructing the Solar Photovoltaic Grid-Connected System **at least fourteen (14) days prior** to making the change. The notification shall contain

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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**' means a change in the nature or functioning, or an extension, or any additional installation, which may have consequences for the environment, including but not limited to the following:

- I. Changes in construction, structure, layout of the facility;
 - II. Installation of new and/or changes to equipment, machine, apparatus, mechanism, system or technology serving the facility or operation; and
 - III. Any technology installed at the facility from which effluent may be discharged.
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- 1.2 At all times, construction of the Solar Photovoltaic Grid System must be done in such a manner that will result in minimal impact on public health and the environment.
 - 1.3 Provide adequate fire protection measures such as fire extinguishers and/or sand buckets in **accordance with** the Guyana Fire Service's approval.
 - 1.4 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 request during Compliance Inspection and in the **Annual Report**.
 - 1.5 Construct and maintain a suitable drainage system that minimizes disturbances to natural drainage patterns. Incorporate erosion control and storm water management at the facility. Drainage systems should be capable of handling the probable maximum precipitation storm event.
 - 1.6 Ensure that adequate provisions are in place for ingress and egress at the Project site.
 - 1.7 Ensure that the Solar Photovoltaic Grid is at least 100 m from any adjoining community or commercial activities within the Project area.
 - 1.8 Ensure that Photovoltaic plates are placed horizontally about four (4) ft above the ground level and are tilted at a 10° angle in a southern direction to minimize sun glare on the surrounding environment.
 - 1.9 Prohibit the hunting, trapping, fishing and trading in endangered and locally protected wildlife species. Further, ensure that the prohibition of capture, trading and removal of wildlife be a term of employment for all contractors and employees.
 - 1.10 Ensure that provision is made to remove all barriers, equipment/material staging areas, all support infrastructures, facilities and equipment associated with the

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Project on the completion of works. Once works are completed, rehabilitation measures must be implemented to make good all works disturbed.

2.0 Road and Transmission Line

- 2.1 Runoff from the road should not be discharge directly into natural water ways.
- 2.2 Ensure that all reasonable and practical measures are implemented to prevent erosion of existing roads during installation, upgrading and maintenance of transmission line.
- 2.3 As much as possible, minimize the area to be cleared for the transmission line alignment and utilise previously cleared roadways on the alignment to the maximum extent practical. Additionally, ensure transmission lines/wires are adequately spaced to prevent large birds from simultaneously touching two wires or, as an alternative, ensure that insulation sleeves or shrouding covers are used on towers, where necessary.

3.0 Employees

- 3.1 Adhere to the requirements of the Occupational Health and Safety Act, No. 32 of 1997, to ensure that employees' health and safety are protected.
- 3.2 Provide employees with the necessary protective equipment to fit their job specification such as: hi-visibility vests, respirator, hard hats, gloves, and appropriate footwear and ensure appropriate utilization of these gear. Prepare and maintain an employee log of distribution of Personal Protective Equipment.
- 3.3 Ensure all employees are trained in the use of the fire extinguisher and understand the firefighting protocol.
- 3.4 Provide first aid kit/s equipped according to the Red Cross standard for the requisite number of employees at the work site and ensure that communication and transportation systems are in place to respond to emergencies.
- 3.5 Employ or designate an employee to the role of an Occupational Health and Safety (OHS)/Environmental Officer who would be responsible for the implementation and coordination of all safety requirements and terms and conditions stipulated in this Permit, as well as monitoring, compliance and making all required reports to the EPA.

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4.0 Air Quality Noise Abatement and Management:

- 4.1 Comply with the provisions of the **Environmental Protection (Air Quality) Regulations 2000 and the Environmental Protection (Noise Management) Regulations 2000.**
- 4.2 Comply with the **GNBS Interim Guidelines for Noise Emissions into the Environment** not exceeding the limits below at a distance of 15 m (50 ft) from the source or at the property boundary, whichever is closer.

Industrial Limits 100 dB during the day-time (06:00 hrs- 18:00 hrs)
80 dB during the Night-time (18:00 hrs - 06:00 hrs)

5.0 Waste Management:

- 5.1 Comply with the provisions of the **Environmental Protection (Litter Enforcement) Regulations, 2013.**
- 5.2 Ensure good house-keeping and hygienic practices and improvement in the aesthetic quality of the surroundings at all times.
- 5.3 Ensure effective management of recoverable materials and all waste generated by the project is in accordance with the EP Act, Cap 20:05 part V s. 19(1)(2)(3)(4): s. 20(1)(2).
- 5.4 Ensure that all measures are taken to minimise/avoid any adverse impacts of the project on the environment and public health, in accordance with the Environmental Protection Act, Cap. 20:05, Laws of Guyana, s. 19(1)(2)(3)(4).
- 5.5 Waste materials should not be burnt on site. Waste materials that cannot be reused should be taken for disposal at an approved disposal facility during operation.
- 5.6 Establish a well-maintained septic system on site. Septic tanks should not be located within 1.5 m of any building or property boundaries and should be accessible for cleaning and de-sludging. Septic tanks must be installed and fitted with a sand and charcoal filter bed or an acceptable treatment design technology in accordance with the Guyana National Bureau of Standards *Code of Practice for Design and Construction of Septic Tanks and Associated Secondary Treatment and Disposal Systems*.
- 5.7 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 waste be disposed of in the Kaituma River or the surrounding environment.

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- 5.8 Promote good sanitation and solid waste disposal practices on site. Covered garbage receptacles must be placed at strategic locations, both within and outside the facility. Wastes must be collected and disposed of at an approved waste disposal facility.
- 5.9 Avoid pollution of the Kaituma River. Solid and liquid waste shall not be discharged directly into watercourse, without prior treatment.

6.0 Hazardous Waste Materials

- 6.0 Adhere to the provisions of the **Environmental Protection (Hazardous Wastes Management Regulations 2000)**.
- 6.1 Establish and maintain a register of hazardous materials or chemicals used or generated as a result of the construction of the Solar Photovoltaic Grid System.
- 6.2 There shall be no release of any pollutants (i.e. fuel, waste oil, chemicals) to ground water or soil from permitted installation. Accidental release of pollutants to soil and ground water should be recorded and be reported **within twenty-four (24) hours** to the Agency for further investigation.
- 6.3 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.
- 6.4 Promote the reuse of waste oil, for example lubrication of equipment, where practical.
- 6.5 Where applicable, 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:
 - a) The identification information of the facility.
 - b) Type and quantities of hazardous waste generated.
 - c) Data concerning off-site shipments of waste.
 - d) Any applied treatment standards.
 - e) A summary of any accidents that may have occurred and any action taken.
 - f) Any waste minimization efforts undertaken by the generator.
 - g) Any other matter the Agency may require.
- 6.6 The Agency considers all materials listed in Schedule I and II of the Environmental Protection (Hazardous Waste Management) Regulations, 2000, to

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be hazardous. Please see attached list of Hazardous Wastes to be controlled.

- 6.7 Keep on site books, documents, records or things showing, as the case may be:
- The amount 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, permit and standard conditions required by any authorization.
 - And any information as the Agency may require.
- 6.8 Ensure that all fuel is stored away from ignition sources and have **'No Smoking' signs** posted where fuel is handled or stored.
- 6.9 Store any contaminated fuel in closed leak proof containers and label slop tanks 'waste gasoline' or 'waste fuel'.
- 6.10 Ensure that an appropriate spill containment kit is located at the Photovoltaic Grid-Connected System. The kit should contain absorbent material, drain seals, disposal containers and other appropriate tools to absorb spilt oil and other spilt liquids.
- 6.11 Construct and maintain an impervious secondary containment bund which should have at least 110 % percent containment capacity around all fuel storage tanks, creating a temporary holding area in the event of spillage.
- 6.12 Ensure that oil/fuel containment adsorbent materials are appropriately stored in double wrapping heavy duty garbage bags and disposed of at an approved waste disposal company. Hazardous contaminated absorbent pads can be disposed of an incineration operation by an approved waste disposal company.
- 6.13 Store used oil in a covered, bunded area to minimize adverse impacts to the environment in the event of spillage. The bunded area must be able to provide containment for the maximum volume of used oil on site.
- 6.14 Prepare and submit to the Agency an **Emergency Preparedness Plan** for approval by the Agency **three (3) months** after the issuance of the Permit. The plan shall include:
- The accident prevention procedures.
 - First person response.
 - Notification procedures.
 - Location of clean-up equipment.
 - An analysis of potential accident and responses.
 - Safety Data Sheets for all materials which could be spilled.

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7.0 Compliance Monitoring and Reporting

- 7.1 Notify the Agency in writing of any change of name or ownership of the Permit Holders' facility **within thirty (30) days** after the change occurs.
- 7.2 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.
- 7.3 Make all employees, and third parties under your direction, aware of the conditions of the Permit and provide training on good environmental management practices and in the areas of occupation safety and health, first aid response, and emergency response. Prepare and maintain a training file for employees which should be available upon Officers' request during Compliance Inspection.
- 7.4 Monitor the implementation of the conditions of this Permit, insofar as they involve adherence by your employees and all third parties under your direction.
- 7.5 Notify the EPA **within twenty-four (24) hours** of the occurrence of any environmental emergencies, i.e., any accidental release of contaminants or incidence of pollution into the environment. The Permit Holder shall provide the financial, equipment and technical capacity to adequately respond to any emergency that may occur on site and respond to any emergency immediately.
- 7.6 Report to the Agency of non-compliance with the Operation Permit:
- 7.7 **Within twenty-four (24) hours** of the time the Holder of the Operation Permit becomes aware of the non-compliance, the anticipated manner in which it may endanger human health or the environment.
- 7.8 **Within seventy-two (72) hours**, submit to the Agency a written report containing a description of the non-compliance, its cause and the period of non-compliance including exact dates and time.
- 7.9 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.
- 7.10 Maintain records of the maintenance of equipment, to be included in the Annual Environmental Report and available for Officers of the EPA during inspections.
- 7.11 Establish and maintain an Occupational Safety and Health Committee, to train staff in safety procedures and monitor and keep records of occurrences of unintentional injuries at the facility.

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- 7.12 Submit **Annual Reports** to the EPA on the progress of the operation and compliance with the conditions under which this Permit was granted on or before **March 31** of each year. Please see attached, *Guidelines for the Preparation of Environmental Annual Reports*.
- 7.13 Failure to conform to all terms and conditions, under which this Permit is granted, may result in the Permit Holder being liable for any loss or damage which arises from the Project as a result of the Permit Holder's activities or breach of any terms and conditions of this Permit.
- 7.14 Submit a detailed Waste Management Plan that would be used to manage the disposal of the Solar Photovoltaic Panels and the management of the project.

8.0 Institutional Authority and Liabilities

- 8.1 The EPA reserves the right to conduct regular inspections of the Permit Holder's operation as part of its monitoring and enforcement requirements under the Environmental Protection Act, Cap. 20:05, Laws of Guyana, the Environmental Protection (Amendment) Act, 2005, and the Environmental Protection (Authorisations) Regulations, 2000.
- 8.2 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 Environmental Protection Act, Cap. 20:05, 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 be liable to penalties prescribed under paragraph (c) of the Fifth Schedule for doing so.
- 8.3 The EPA reserves the right to review and/or amend the conditions and fees attached to this Permit, which also includes the review and/or amendment of Permit Fees in consideration of any changes in fee structure as determined by the Agency for projects of this nature.
- 8.4 The EPA shall have the right to cancel or suspend this Permit for breach of any of the terms and conditions contained herein.
- 8.5 This **Construction Permit** is not the final consent; all relevant permissions should be obtained from other regulatory bodies for continued operation.
- 8.6 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 any Environmental Authorisation which are attributed to the Project. S. 19(1) EP Act, Cap. 20:05, Laws of Guyana.

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- 8.7 The Permit Holder shall be guilty of any offence in accordance with s. 39(1), (2), (3), (4) of the EP Act, Cap. 20:05, which states respectively –“every person who causes 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 is guilty of an offence and shall be liable to the penalties prescribed under the Act.”
- 8.8 The Permit Holder shall compensate any Party who suffers any loss or damage as a result of the attributed project. (Part V, s. 19(3) (e)) EP Act Cap. 20:05, Laws of Guyana.
- 8.9 The Permit Holder shall be responsible for the payment of all costs related to the assessment of damage and costs for the independent assessor (s).
- 8.10 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 biodiversity, protected species and natural habitat.
- 8.11 The Agency (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's lack of due care and diligence.
- 8.12 **This Construction Permit** is effective for the period stipulated herein **May 2020 to April 2021.**
- 8.13 This Operation Permit shall remain valid until **March 31, 2021**, unless otherwise suspended or revoked in accordance with the provisions of this Permit or the Environmental Protection Act, Cap. 20:05, Laws of Guyana, the Environmental Protection (Amendment) Act, 2005, and the Environmental Protection (Authorisations) Regulations, 2000.
- 8.14 This **Operation 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 **September 30, 2020.**
- 8.15 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 (GY\$2,000.00) per day for every day late**, until such renewal application is submitted to the Agency, without prejudice to any other rights of the Permit Holder in connection therewith.

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- 8.16 Failure to comply with the requirements of this Permit shall render the Permit Holder liable to prosecution and to civil penalties and/or injunctive relief prescribed under the Environmental Protection Act, Cap. 20:05, Laws of Guyana 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.

Ms Sharifah Razack
Executive Director (ag)

Date:

2020-12-09

I hereby accept the 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, and the Environmental Protection (Authorisations) Regulations, 2000, and any forthcoming regulations, best practices, guidelines and standards made under this Act.

NAME	HORACE WILLIAMS
DESIGNATION	C.E.O
SIGNATURE	
DATE	DEC-09, 2020

