



**Environmental
Protection
Agency**

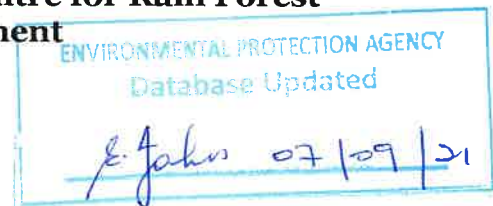
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Environmental Permit (Renewed)

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.:	20110916 - ITHSO
Fee:	Medium (C1) US\$ 500 per year
Fee Paid:	US\$ 2500 – 5 years - (August, 2021 – July, 2026)

Addressee(s): Dr Raquel Thomas
Director
Resources Management and Training
Iwokrama International Centre for Rain Forest
Conservation and Development
77, High Street,
Kingston, Georgetown.



Activity: Operation of a Tourism and Hospitality Service

Iwokrama International Centre for Rain Forest Conservation and Development, operating as Iwokrama River Lodge and Research Centre, hereinafter referred to as the "Permit Holder", is hereby authorised 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 operate a Tourism and Hospitality Service, located at Iwokrama Forest, inclusive of Atta Lodge and Canopy Walk Way, and Turtle Mountain, located at Iwokrama River Lodge and Research Centre, Iwokrama Forest, Kurupukari, Region 8, hereinafter referred to as the "Project", in a manner indicated in the Renewal Application submitted June 26, 2019, 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 applicable laws, best practices, guidelines and standards relevant to this project.

This is a Renewal of the Environmental Permit (Modified), Reference Number - 20110916-ITHSO, issued on September 22, 2017, which expired on November 30, 2020. This Environmental Permit (Renewed) is issued pursuant to the Environmental Protection (Authorisations) Regulations, 2000.

Terms and Conditions for Operation:

Handwritten initials/signature

The Permit Holder shall:

1.0 OPERATION

1.1 Notify the Agency in writing and obtain its approval for **ANY** proposed changes in the operation of the facility **at least 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'** means a change in the nature, or an extension, of the installation, which may have consequences for the environment, including but not limited to the following:

- I. Changes in construction, structure, or layout of the facility and all associated buildings.
- II. Installation of new and/or changes to equipment, machine, apparatus, mechanism, system or technology serving the facility.
- III. Any technology used or installed at the facility from which effluent may be discharged.

1.2 Ensure that all third parties adhere to the requirements and conditions of this Environmental Permit (Renewed).

1.3 Ensure that the installation of all utility services such as water, electricity and road construction/repairs conducted by or supervised by Iwokrama is done in an acceptable environmentally-sustainable manner so as to avoid frequent excavation and disturbance in the area.

1.4 Maintain good house-keeping, sanitary and hygienic practices and the aesthetic quality of your surroundings at all times.

1.5 Promote the conservation and efficient use of energy. Options for energy efficiency are described but not limited to those identified below:

1.5.1 The use of appropriate electrical fixtures and equipment where possible, that will allow for the efficient utilization of energy, for example, replacing incandescent lamps with LED fixtures, installation of Energy Star or other equivalent appliances and the use of alternative energy fixtures for example, solar water heaters.

1.5.2 Maintain the use of renewable energy sources and ensure that conservative energy methods (for example, energy saving bulbs) are used where feasible.

- 1.5.3 Ensuring all exterior doors on air-conditioned spaces are properly sealed to avoid losing cool air within the Fred Allcock Building.
- 1.5.4 Encourage staff to turn off lights and air conditioning when rooms are unoccupied.
- 1.6 Make all employees aware of the Conditions of the Environmental Permit (Renewed) and provide training on good environmental management practices.

2.0 WATER QUALITY MANAGEMENT

2.1 Maintain the integrity of the **Essequibo River and all water ways in close proximity to the facilities**, with an emphasis in the areas directly surrounding the Iwokrama River Lodge. Discharges into the environment should be in accordance with the Guyana National Bureau of Standards (GNBS) *Interim Guidelines for Industrial Effluent Discharge into the Environment* and is as follows:

- Temperature (40 °C);
- pH (5.0-9.0);
- Total Suspended Solids (TSS <50 mg/L);
- Biological Oxygen Demand (BOD <50 mg/L);
- Chemical Oxygen Demand (COD <250 mg/L);
- Oil and Grease (< 10 mg/L);
- Total Chlorine (<0.2 mg/L).

Further, monitor the parameters on a bi-annual basis (in the rainy and dry seasons) and submit the results to the Agency within the **Annual Report**, see condition 8.9. Samples should be taken at multiple points upstream, midstream and downstream of the operation. Also include maps, GPS points, the method of sampling and the person collecting the sample (s).

- 2.2 Adequately store, cover and protect raw materials and waste especially in rainy conditions to avoid runoff to waterways.
- 2.3 Promote conservation of water resources by minimizing water consumed and reusing where possible.
- 2.4 Not discharge nor dump solid waste and/or untreated effluent directly into the receiving waters in excess of the limits outlined in Condition 2.2 above. All waste water shall be treated before and shall meet the limits set out in Condition 2.2.
- 2.5 Direct all waste lines and drains carrying grease, fats, or culinary oil, or similar waste products from kitchens or food preparation areas into one or more grease trap interceptors.

2.6 All required grease trap interceptors shall comply with the following:

- i. Material and Covers. Grease interceptors shall be constructed of durable, corrosion-resistant materials and shall have water-tight covers securely fastened in place.
- ii. No grease interceptor shall receive the discharge from a food waste disposal or a commercial dishwashing machine.
- iii. The flow rate of the interceptor shall be sufficient to handle the maximum demand of the connected system.
- iv. All interceptors shall be installed in an accessible location to permit the convenient removal of the lid and internal contents.
- v. All interceptors shall be designed and installed with proper venting so that they do not become air bound.

2.7 Maintain a good drainage system and ensure the land is appropriately prepared to reduce the impacts of flooding.

3.0 AIR QUALITY MANAGEMENT

3.1 Comply with the provisions of the **Environmental Protection (Air Quality) Regulations, 2000.**

3.2 Ensure that the exhaust stacks of generators are of an appropriate height to minimise adverse fumes/soot impacts to contiguous areas.

3.3 Ensure activities, which could result in high volumes of dust being generated are scheduled for periods when there is reduced occupancy (i.e. on weekends, before and after working hours).

3.4 Ensure operation of all mechanical equipment is done in accordance with manufacturer's specifications. Additionally, ensure that all mechanical equipment and vehicles are regularly maintained and operated at their optimal levels.

4.0 WASTE MANAGEMENT

4.1 Promote proper solid waste management and disposal practices in operations.

4.2 Provide covered garbage receptacles at strategic locations, both within and outside the established buildings of the site.

- 4.3 Eliminate or substantially reduce the use of disposable cups and dishes for special events, where feasible.
- 4.4 Not discharge or cause or permit the discharge of any waste that is generated from the facilities into the Burro Burro River, Essequibo River, Siparuni River, Creeks, waterways, any other surrounding waters or land. Waste must be contained within the boundaries of the project site.
- 4.5 Ensure that all solid waste materials are appropriately disposed in the solid waste pit located within the Iwokrama project boundaries.
- 4.6 Ensure that mechanisms are in place to adequately store, dispose, reuse and/or recycle all waste materials.
- 4.7 The soak-aways and water effluent disposal system must be maintained and functional at all times.
- 4.8 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 Bureau of Standards (GNBS) *Code of Practice for the Design and Construction of Septic Tanks and Associated Secondary Treatment and Disposal Systems*.

5.0 NOISE MANAGEMENT

- 5.1 Comply with the Guyana National Bureau of Standards (GNBS) *Guidelines for Noise Emissions into the Environment*, not exceeding the Recreational Limits at a distance of 15 m (50 ft) from the source or at the property boundary, whichever is closer.

- Recreational Limits: Day-time **100dB** (06:00 h -18:00 h)
 Night-time **100 dB** (18:00 h - 01:00 h)
 70 dB (01:00 h – 08:00h)

- 5.2 Ensure all significant noise - producing equipment, e.g. generators, etc., are equipped with appropriate silencers or mufflers and/or are enclosed in suitable acoustic enclosures where necessary, to reduce noise levels impacting the surrounding environment to achieve compliance with GNBS requirement.
- 5.3 Ensure all equipment and machinery are placed on foundation properly designed to ensure effective damping of vibrations.

6.0 HAZARDOUS WASTES / MATERIALS MANAGEMENT

6.1 Take **all** necessary precautionary measures when transporting and handling fuel via trail or river, within the project boundary, and when re-fueling the generator set or drums, etc., onsite.

6.1.1 In the event that waste oil (recovered from servicing machinery) is stored on site, it should be stored in a covered, bunded area to minimise adverse impacts to the environment in the event of spillage. The bunded area should be extended to provide 110 per cent containment of the largest container/volume of fuel/waste oil stored on site.

6.1.2 All waste oil containers shall be labeled with the following:
(i) The words "Waste Oil or "Used oil"
(ii) Beginning accumulation date

6.2 Establish and maintain a register of hazardous materials or chemicals used or generated by your operation. Submit to the Agency **twice yearly** (June and December) a **Report** relating to the activities for the previous six months including:

- (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 utilized, 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.
- (f) Any waste minimization efforts undertaken by your facility for hazardous material/waste.
- (g) Any other matter the Agency may require.

The Agency considers all materials listed in Schedule I and II of the Environmental Protection (Hazardous Wastes Management) Regulations, 2000, to be hazardous. Please see attached list of hazardous wastes to be controlled and reporting form.

6.3 Submit the Report of activities for the previous year in electronic format acceptable to the Agency along with a hard copy, which should be signed by the Holder of the Authorisation.

6.4 Keep on site, books, documents, records or things showing, as the case may be:

- (a) The amount of hazardous wastes generated stored, treated, transported or disposed of.
- (b) The dates pertinent to the activities referred to above.

- (c) Signed copies of manifests.
- (d) Records of test results, waste analyses, permit and standard conditions required by any authorisation.
- (e) And any information as the Agency may require.

6.5 Construct a sump below the fuel dispensers to capture any spillage that may occur.

6.6 Install and maintain oil/water separator (s) on site, through which all effluent (oily water) must pass before final discharge. Recovered oil must be stored and disposed of in a manner approved by the EPA as per conditions 6.2.1 and 6.2.2.

6.7 Collect and store used batteries, and any other hazardous waste on site, until ready for disposal in a manner approved by the EPA.

7.0 ENVIRONMENTAL EMERGENCY

7.1 Obtain approval from the Guyana Fire Service and provide fire protection measures such as fire extinguishers and sand buckets in accordance with this approval.

7.2 Provide adequate fire protection measures, such as maintaining and placing firefighting equipment including fire extinguisher, sand bucket, etc. at visible locations on site, in accordance with guidelines established by the Guyana Fire Service, taking into consideration **all** the sites; the River Lodge, Atta Lodge and Turtle Mountain Base Camp sites.

7.2 Maintain a supply of oil-absorbent materials such as absorbent pads, sand, etc., at the sites for the clean-up of spills.

7.3 Treat and contain spills of even a minor nature with absorbent materials.

7.4 Ensure that appropriate clean-up equipment such as spill trays, oil spill clean-up recovery pump, oil spill dispersant spray system or sorbent pads, are readily accessible during refueling exercises.

8.0 COMPLIANCE MONITORING & REPORTING

8.1 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.

8.2 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 a combination of any of them).

8.3 Report to the Agency of non-compliance with the Environmental Permit (Renewed)

(Environmental Authorisation):

- (i) Within twenty-four (24) hours of the time the Holder of the Environmental Permit (Renewed) (Environmental Authorisation) becomes aware of the non-compliance, the anticipated manner in which it may endanger human health or the environment.
- (ii) 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.
- (iii) 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.

8.4 Notify the EPA within 24 hours of the occurrence of any incidence of pollution, spills or accidental release of an environmental contaminant.

8.5 Submit to the Agency an approval from the Guyana Fire Service **within fourteen (14) working days** of receipt of this Permit.

8.6 Monitor the conditions of this Permit, insofar as they involve adherence by your employees and all third parties associated with the implementation (operation) of the Project.

8.7 Assign an individual responsible for coordinating environmental management, monitoring for compliance and implementing the conditions of this Permit, and for reporting to the EPA.

8.8 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** each year.

8.9 Notify the Agency of non-compliance with this permit upon becoming aware of any violation.

8.10 Conform to all terms and conditions under which this Permit is granted and shall be liable for any loss or damage which arises from the project as a result of the Permit Holders' activities or breach of any term or condition of this Permit.

8.11 Compensate any affected Party for any loss or damage to the environment that arises from the implementation of this Project.

8.12 Comply with any lawful directions given by the EPA from time-to-time in furtherance of the implementation of any international or other obligations for the environmental protection of Guyana.

8.13 Ensure the grease trap and the oil/water separator is cleaned every six months or as

required, and the disposal of the fat, oil and grease described in the **Annual Report** (see Condition 8.9).

- 8.14 Ensure regular inspections are conducted on all structures and buildings at the Iwokrama River Lodge. Records of repairs and maintenance done to all structures and buildings should be submitted to the Agency within the **Annual Report** (see Condition 8.9).

9.0 INSTITUTIONAL AUTHORITY/LIABILITIES

- 9.1 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 Construction 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.
- 9.2 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.
- 9.3 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.)
- 9.4 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 prosecution and to penalties prescribed under the Environmental Protection Act and Regulations.
- 9.5 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.
- 9.6 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.

- 9.7 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.
- 9.8 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.
- 9.9 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.
- 9.10 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 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.
- 9.11 The EPA shall have the right to cancel or suspend this Permit for breach of any of the terms and conditions contained herein.
- 9.12 **The Permit Holder is obligated to ensure that the operation of the Facilities is permitted by all other relevant Authorities.**
- 9.13 This Environmental Permit (Renewed) is effective for the period stipulated herein **August, 2021 – July, 2026.**
- 9.14 This Environmental Permit (Renewed) shall remain valid until **July 31, 2026**, 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.
- 9.15 This Permit must be renewed by submitting an *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, 2026.**

Environmental Permit (Renewed) Ref. No. 20110916-ITHSO

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.

- 9.16 Any late submission of renewal application (s) after the specified date as stated above, the agency may require the Permit Holder to pay, in addition to 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.
- 9.17 Failure to comply with the requirements of this Environmental Permit (Renewed) 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

Executive Director

Date

1.9.2021

I hereby accept the above Terms and Conditions upon which this Environmental Permit (Renewed) 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	RAQUEL THOMAS
DESIGNATION	DIRECTOR RESOURCE MANAGEMENT & TRAINING
SIGNATURE	
DATE	2/9/2021

