



**Environmental
Protection
Agency**

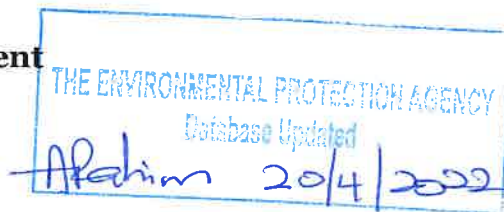
Ganges Street, Sophia,
Georgetown, GUYANA
Tel.: (592) 225-0506
Fax: (592) 225-5481
Email: epa@epaguyana.org
Website: <http://www.epaguyana.org>

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.:	20210527-ANHSD
Fee:	Extra Large (C2) - US\$3100 per year
Fees Paid:	US\$ 15,500 for for five (5) years – December, 2021 to November, 2026

Addressee: A&S General Contractors Inc.
New Housing Scheme Development
Gorchum/ Wilhelmina, Mahaica
East Coast Demerara
Georgetown.



Activity: Construction of a Hosuing Scheme

A&S General Contractors Inc., 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 housing Scheme at Gorchum/ Wilhelmina, Mahaica, East Coast Demerara, Region 4, hereinafter referred to as "the Project", in a manner indicated in the Application dated May 27, 2020, subject to the terms and conditions set forth herein under the Environmental Protection Act, Cap. 20:05, existing and/or forthcoming regulations made under the said Act, and/or any applicable laws, best practices, guidelines and standards relevant to this project.

The Permit Holder, his Servants, Agents and Sub-Contractors shall comply with the following Terms and Conditions of this Environmental Permit:

1.0 GENERAL CONSTRUCTION AND OPERATION

- 1.1 Notify the Agency in writing of any proposed changes in the construction of the Housing Scheme 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

[Handwritten signature]

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 Submit an **Environmental and Social Management Plan (ESMP)** to the EPA for approval **within four (4) months of the date of issuance of this Permit**. The ESMP must address, but is not limited to, the following:
 - 1.2.1 The ESMP must incorporate a waste management plan and an emergency response plan. These plans should clearly identify the waste generated and provide measures for its management to protect the surrounding environment and human health in emergency and non-emergency scenarios.
 - 1.2.2 The ESMP must contain mitigation plans for all potential impacts of the project, including those on:
 - a. Water quality – the relevant features such as temperature, salinity, pH, colour, transparency, oil and grease, and organic material concentration measured by total organic carbon (TOC), (COD), (BOD), turbidity measured by suspended solids (SS); sanitation-related factors determined by measuring the amount of coliform bacteria, etc.
 - b. Air quality
 - c. Solid waste management
 - d. Socio-cultural resources
- 1.3 Construction activities are not permitted between 22:00 hrs and 06:00 hrs on any day unless prior EPA approval has been requested and granted. Large concrete pours that require activities in the early morning or late evening, are exempt from this condition.
- 1.4 Adhere to the requirements of **the Occupational Safety and Health Act, Cap. 99:01, Laws of Guyana**.
- 1.5 Ensure that employees are at all times, equipped with appropriate protective gear during construction such as protective headgear, respirators, safety vests, safety boots, etc.
- 1.6 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.
- 1.7 Remove all construction tools, equipment, machinery, and waste material from site on the completion of construction works.

2.0 WATER AND SOIL QUALITY MANAGEMENT

- 2.1 Adhere to the provisions of the **Environmental Protection (Water Quality) Regulations, 2000**.
- 2.2 Maintain the integrity of the existing waterways adjacent and within the project site at all times. Any 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;
 - Biological Oxygen Demand (BOD) < 50 mg/L;
 - Chemical Oxygen Demand (COD) < 250 mg/L;
 - Total Suspended Solid (TSS) < 50 mg/L;
 - Oil and Grease < 10 mg/L; and
 - Chloride < 0.2 mg/L.
- 2.3 Monitor the parameters above **annually** and on a submit the monitoring report to the Agency as part submission of the required Annual Report. Sample points should include the final discharge point(s) from the facility as noted in **Table 4-2: Description of Surface Water Sample Locations** in the submitted EMP; as well as an upstream and downstream sample from the receiving body of water. The Agency also reserves the right to request independent analysis from a certified laboratory approved by the EPA.
- 2.4 Take all practicable 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 office.
- 2.5 Avoid soil and water contamination from fuel, grease, waste oils and other petroleum products that might be used at the construction site. Ensure that all oils, fuel, paints and chemicals are stored in a designated area, at least 10 meters away from waterways.
- 2.6 As far as practicable, 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.
- 2.7 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 any water body.

- 2.8 Do not discharge or dump solid waste and/or trade effluent directly into receiving waters without prior treatment. Install and maintain grease trap/ an oil-water separator(s) at the final discharge point of the on site sewage facility through which all effluent must pass before final discharge.
- 2.9 Prevent excessive or inappropriate use of cleaning chemicals. The use of biodegradable/water-based cleaning products is encouraged.
- 2.10 Construct and maintain drainage systems capable of handling the probable maximum precipitation storm event.
- 2.11 Disposal of excavated materials into surrounding drains is strictly prohibited.

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.

During Construction

- **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)

During Operation

- **Industrial Limits:** 100 dB during the daytime (06:00 h - 18:00 h)
80 dB during the night-time (18:00 h - 06:00 h)

- 3.3 Ensure that all construction and operations activities are done in such a manner so as to prevent, minimise, control and/or avoid 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 Implement appropriate and practical measures/ best practices for management of noise from all sound-making devices, such as generators, and construction machinery etc.
- 3.6 Ensure that the exhaust stack of each generator is at a sufficient distance from other buildings at least 2 metres above the tallest building nearby, to minimise adverse fumes/soot impacts to the contiguous areas.
- 3.7 Comply with the *World Health Organisation (WHO) Air Quality Guidelines for Particulate Matter in the Environment*, not exceeding the limits below:
- PM_{2.5}**: 25 µg/m³ 24-hour mean
PM₁₀: 50 µg/m³ 24-hour mean
- 3.8 Conduct Air Quality Monitoring for the parameters listed in conditions 3.6 **annually**. The sample points must comply with those of **Table 124-8: Details on Air Quality Assessment Locations and Assessment** as in the submitted EMP. A monitoring report should be submitted to the Agency as part submission of the required Annual Report.
- 3.9 Employ dust suppression methods such as watering or erecting dust screens/fences to control dust emissions from material stockpiles and other components of the development that would generate dust.
- 3.10 Ensure stockpiles are stored downwind to avoid being transported by wind to sensitive areas (e.g. residences, schools, etc). Loading and offloading activities should, as far as possible, also be confined to this location.
- 3.11 Keep drop heights at a minimum when loading and/or offloading materials e.g. sand, aggregates, etc. to reduce particles from becoming airborne.
- 3.12 Ensure that materials susceptible to wind erosion e.g. sand are covered at all times during storage and transport to and from the construction site, to prevent material loss and reduce emission of particulate matter into the environment.
- 3.13 Ensure that engine idling during on- and off-loading activities is minimum during construction.
- 3.14 Record, investigate and address complaints of excessive noise, dust and vibrations from the public promptly upon receipt.

4.0 FUEL AND HAZARDOUS/ WASTE MANAGEMENT

- 4.1 Comply with the **Environmental Protection (Litter Enforcement) Regulations, 2013 and the Environmental Protection (Hazardous Waste Management) 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 service the area to dispose of waste at a legal designated site. Place covered garbage receptacles at strategic locations around the construction site.
- 4.4 Domestic waste should be placed in covered receptacles and disposed by a competent disposal company/authority.
- 4.5 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.
- 4.6 Dumping of waste (Domestic and Construction) into the surrounding environment is strictly **prohibited**. Waste, inclusive of waste oil and/or fuel, should not be stored within 10 meters of waterways.
- 4.7 Construct and or 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.
- 4.8 Prepare and submit to the Agency no later than forty-five (45) days after the end of the construction; and by March 31 every year after (see Condition 6.5); 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 (recovered from the oil-water separator or from servicing of generators) is stored, it shall be stored in a covered, bunded area to minimise adverse impacts to the environment in the event of spillage.
- 4.10 All fuel shall be stored away from ignition sources and have 'No Smoking' signs posted where fuel is handled or stored.
- 4.11 All waste oil shall be disposed of in accordance with the Environmental Guidelines, 2011 for the 'Removal, Treatment and Disposal of Oily Sludge' or reuse waste oil as lubricant for chainsaw or other equipment/machinery.
- 4.12 The Permit Holder shall 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.
- 4.13 Hazardous contaminated absorbent pads can be disposed of at an incineration operation approved by the EPA.
- 4.14 An impervious secondary containment bund shall be maintained and have at least 110% containment capacity around all fuel storage tanks, creating a temporary holding area in the event of spillage.
- 4.15 Limit access to hazardous waste storage areas to employees who are authorised and have received proper training.
- 4.16 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).

- 4.17 Treat and contain spills of even minor in nature with absorbent materials.
- 4.18 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 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.
- 5.2 Obtain 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 aware of the Environmental Management (EMP) submitted to the Agency and their duties and responsibilities according to this plan.
- 5.4 Ensure at all times the working environment is monitored for occupational hazards relevant to the specific construction activities of the Industrial Park.
- 5.5 All employees must be equipped with and trained in the use of personal protective equipment (PPE) to fit their job specification such as hi-visibility vests, respirator, hard hats, gloves, and appropriate footwear and ensure appropriate utilisation of these gears. A log for the distribution of Personal Protective Equipment to employees must be maintained. Evidence of distribution log must be presented to officer of the Agency upon request during compliance inspections.
- 5.6 A first aid kit equipped according to the Guyana Red Cross standards must be located on site at times. Additionally, communication and transportation systems must be in place to respond to emergencies.
- 5.7 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.
- 5.8 Ensure all employees are trained in the use of firefighting equipment, such as, fire extinguishers and understand the firefighting protocol.
- 5.9 Make all employees/third party contractors aware of the Conditions of the Operation

Permit and provide training on good environmental management practices. Prepare and maintain a training file for employees which should be available upon Officers' request during a Compliance Inspection.

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, the anticipated manner in which it may endanger human health or the environment.
 - 6.3.2 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.
- 6.4 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.
- 6.5 Submit **Environmental Annual Reports** to the EPA on or before **March 31** every year 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.
- 6.7 Inform the Agency prior to or within **thirty (30) days** of any change of name or ownership of the project.
- 6.8 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 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 (Authorisations) Regulations, 2000.

- 7.2 The Permit Holder, His Servants and/or Agents shall at all times, allow entry to the permitted project/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.
- 7.3 The EPA shall have the right to cancel or suspend this Permit for breach of any of the terms and conditions contained herein.
- 7.4 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.
- 7.5 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.)
- 7.6 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.
- 7.7 The Permit Holder shall be liable of any gross negligence or willful misconduct caused by the Permit Holder, his Servants and/or Agents, to the environment, biodiversity, protected species and natural habitat with respect to any release, discharge, or spill, of contaminant fluids, oil or lubricants.
- 7.8 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 Section 26 of the Environmental Protection Act, Cap. 20:05, Laws of Guyana.
- 7.9 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, 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.

- 7.10 This Environmental Permit is effective for the period stipulated herein, **December 2021 to November 2026**.
- 7.11 This **Environmental Permit** shall remain valid until **November 30, 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 and the Environmental Protection (Authorisations) Regulations, 2000.
- 7.12 This Permit must 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 **May 31, 2026**."
- 7.13 Any late submission of the application required by Condition 7.12 beyond the date specified therein, may require the Permit Holder to pay, in addition to the application 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 business day late**, until such application is submitted to the Agency, without prejudice to any other rights of the Permit Holder in connection therewith.
- 7.14 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, its Regulations and other applicable laws of Guyana.

Signed by _____ on behalf of the Environmental Protection Agency.

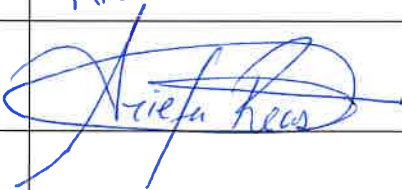
Kemraj Parsram
Executive Director

Date 16.12.2021

Environmental Permit - Ref. No.: 20210527-ANHSD

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 Construction 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:	ARIEFA REASAT
SIGNATURE:	
DESIGNATION:	EXECUTIVE DIRECTOR
DATE:	19-JAN-22

