



**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

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.:	20170511 - GMPNR
Fee:	Medium (C1)-US\$500 per year
Fees Paid	US\$ 1,000: Two (2) years (November, 2021 to October, 2023)
Addressee(s):	Mr. Jermaine Critchlow Sustainability Manager AGM Inc. (ZiJin Mining Group Co. Ltd.) 90 Carmichael Street Georgetown.
Activity:	Construction and Operation of an Airstrip

AGM Inc. (ZiJin Mining Group Co. Ltd.), 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 Construct an Airstrip to be located at Aurora Gold Mine Project, Aurora, Cuyuni River, hereinafter referred to as the "Project", in a manner indicated in the Renewal Application submitted on May 11, 2021, subject to the terms and conditions set forth herein under the Environmental Protection Act, Cap. 20:05, and any existing or forthcoming regulations made under the said Environmental Protection Act and/or any other applicable laws, best practices, guidelines and standards relevant to this Project.

This is a Renewal of the Construction Permit, Reference # 20170511-GMPNR, issued on July 17, 2019 and expired on April 31, 2021.

The Permit Holder, His Servants, Agents and/or Sub-Contractors shall comply with the following Terms and Conditions:

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1.0 CONSTRUCTION

- 1.1 Make an application to the Agency to vary this Environmental Permit in instances where it becomes necessary to:
 - i. change the construction, operation, structure, or layout of the facility and all associated buildings;
 - ii. change equipment, machine, apparatus, mechanism, system or technology serving the facility;
 - iii. change the position and design of any outlet at the point or points of discharge of effluents; or
 - iv. effect any other change outlined in 20(3) of the Environmental Protection (Authorisations) Regulations.
- 1.2 Utilise the land in accordance with the Design Report submitted to the Agency on May 11, 2021. All specifications of location, pathways, reserve and boundary lines must be adhered to, unless otherwise authorised.
- 1.3 Obtain construction materials such as bitumen, asphalt, aggregates, etc. only from approved sources.
- 1.4 Take all necessary precautions to minimise potential adverse impacts on public health and the environment in transporting, storing, and handling of construction materials.
- 1.5 Install a safety fence on the perimeter of the airstrip so as to restrict people and wildlife from accessing the airstrip during its construction phase.
- 1.6 Remove all construction tools, equipment, machinery, and waste material from site on completion of construction works.
- 1.7 Identify suitable areas for materials stockpiles and equipment in the vicinity of the airstrip.
- 1.8 Undertake construction, including clearing of vegetation, at a pace slow enough to ensure that terrestrial animals and aquatic life can move to other locations.
- 1.9 Store all cleared vegetation properly at an identified area and where possible, reuse logs in the construction process of the aerodrome.
- 1.10 Adhere to the provisions of the Environmental Protection (Hazardous Waste Management) Regulations, 2000, in the Environmental Permit (Renewed and Varied) - Ref. No. 20090114-GGIOO, specifically **Section 10.0 HAZARDOUS MATERIALS / WASTE MANAGEMENT, conditions 10.1 to 10.12.**

2.0 EMPLOYEES

- 2.1 Provide employees with the necessary protective equipment to fit their job specifications such as: hi-visibility vests, respirators, hard hats, gloves, and appropriate footwear and ensure appropriate utilisation of these gear. Prepare and maintain an log of the distribution of Personal Protective Equipment (PPE) to employees.
- 2.2 Maintain a well-equipped first aid and snake bite kit on the worksite, and ensure that communication and transportation systems are in place to respond to emergencies.
- 2.3 Make all employees/third party contractors aware of the Conditions of the Environmental Permit (Renewed) and provide the necessary training on good environmental management practices for all staff.
- 2.4 Prepare and maintain a training file for employees who have been trained on good environmental management practices etc. and make it available to Officers during a Compliance Inspection.
- 2.5 Employ an employee(s) with sufficient knowledge of Health, Safety and Environment responsible for implementing the terms and conditions of this Environmental Permit (Renewed) and any other policy document that would be developed and implemented by your establishment during the construction of the Airstrip.
- 2.6 Prohibit employees from capturing, killing, trading and/or removing any **Wildlife and Non-Timer Forest Products (NTFPs)** from the project area in accordance with the Wildlife Management and Conservation Act, 2016, and any of its applicable forthcoming Regulations.

3.0 NOISE ABATEMENT

- 3.1 Adhere to the provisions of the Environmental Protection (Noise Management) Regulations, 2000.
- 3.2 Adhere to 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 during construction, 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 Enclose all sound-making devices, such as generators, in structures constructed with materials of good insulation properties (e.g., hollow concrete blocks, insulation

boards, solid clay bricks, etc.) and equipped with silencers or mufflers to reduce the noise level.

- 3.4 Place all equipment and machinery on an adequate foundation, designed for effective damping of vibrations.
- 3.5 Conduct construction activities in such a manner to prevent/avoid adverse noise nuisance to the surrounding environment.

4.0 AIR QUALITY MANAGEMENT

- 4.1 Adhere to the provisions of the Environmental Protection (Air Quality) Regulations, 2000.
- 4.2 Employ wet suppression methods such as watering and install dust screens/fences to control dust emissions from material stockpiles and other development components that would generate dust so as to minimise the impact of fugitive dust on public health and safety, and the environment.
- 4.3 Ensure that appropriate measures are in place to minimise the impacts of airborne emissions from vehicles offloading and/or loading building materials.
- 4.4 Operate all mechanical equipment in accordance with the manufacturer's specifications at all times. Additionally, ensure that mechanical equipment work at their optimal levels to minimise atmospheric emissions.

5.0 ROADS

- 5.1 Maintain all active roads/trails leading to the Airstrip. Fill in ruts and holes that develop during road/trail use with suitable material (such as compacted fill), as possible to reduce the potential for erosion.
- 5.2 Where the land surface has been disturbed during/after construction, the Permit Holder shall reclaim/rehabilitate the surface of unused land to equivalent capability.
- 5.3 Equip trucks with the necessary reflecting signage to warn the public of the impending danger of parked/moving trucks with construction materials.
- 5.4 Road shall have the capacity to withstand the transportation of construction materials.

6.0 SOIL MANAGEMENT

- 6.1 In the event that additional vegetative areas have to be cleared, this shall be kept to a minimum to reduce erosion.

- 6.2 Site clearing operations shall progress gradually and be phased to ensure there is no increase in sediment discharge to the Cuyuni River.
- 6.3 Protect susceptible sloped surfaces with mulch and re-vegetate with appropriate cover to ensure slope stability and avoid erosion. A vegetative buffer shall be maintained along sloped surfaces and in areas adjacent to surface-water bodies to prevent runoff into those waterbodies.
- 6.4 Avoid erosion, siltation and sedimentation of the Cuyuni River, drains and canals during construction and cutting of airstrip. Install sediment control structures such as sediment traps, filters and screens to prevent the inflow of sediments to surface water.
- 6.5 Temporary stockpiles of construction materials including excavated waste, such as topsoil, shall be stored and secured in a designated area, and protected from wind and rain erosion.

7.0 WATER QUALITY MANAGEMENT

- 7.1 Adhere to the provisions of the Environmental Protection (Water Quality Regulations) 2000.
- 7.2 Avoid soil and water contamination from fuel, grease, used/waste oils and other petroleum products. Store all oils, fuel, paints and chemicals in a designated area with impervious base, away from watercourses.
- 7.3 Ensure that discharges into the environment are in accordance with the Guyana National Bureau of Standards (GNBS) *Interim Guidelines for Industrial Effluent Discharge into the Environment and the International Finance Corporation (IFC) Environmental Health and Safety Guidelines for mining*. The following maximum allowable limits should not be exceeded:
 - i. pH 5.0 - 9.0;
 - ii. Total Suspended Solid (TSS) <50mg/L;
 - iii. Oil & Grease <10 mg/L;
 - iv. Chemical Oxygen Demand <150 mg/L;
 - v. Temperature <40 °C;
 - vi. BOD < 50 mg/L; and
 - vii. Coliform <400MPN per 100mL.
- 7.4 Monitor the parameters listed in Condition **7.3** on a bi-annual basis at the point of discharge into any waterway and submit the results to the Agency as a component of the **Annual Environmental Report** required in Condition **10.3**. The method of sampling the required parameters, and the frequency on monitoring shall be determined by the Permit Holder, and the point of discharge into any waterway.

Samples shall be analysed by a **certified laboratory** and the results submitted to the EPA as a component of the Annual Report.

- 7.5 Drainage system shall be kept free-flowing and cleared of debris and vegetation to prevent water stagnation and reduce the potential of flooding. Regular cleaning of the drainage network and the immediate environment must be conducted.
- 7.6 Divert and treat stormwater from areas with potential for leaks and spills of chemicals and fuels through the use of an oil/water separator prior to discharge to surface water bodies.
- 7.7 Stockpile material for construction of the airstrip away from any ponds, ditches or other surface water features.
- 7.8 Consider the local weather pattern before initiating major earthworks. Schedule major clearing operations for dry periods and monitor areas of exposed soil during periods of heavy rainfall.
- 7.9 Ensure that any waterway(s) that may cross the Project Site are engineered into the construction so as to maintain their discharges into the Cuyuni River or be diverted to maintain their flows.

8.0 WASTE MANAGEMENT

- 8.1 Adhere to the provisions of the Environmental Protection (Litter Enforcement) Regulations, 2013.
- 8.2 Maintain good housekeeping, hygienic practices and the aesthetic quality of the surroundings at all times.
- 8.3 Promote good sanitation and solid waste disposal practices on site. Covered garbage receptacles shall be placed at strategic locations at the facility. Wastes shall be collected and disposed of at an approved waste disposal facility.
- 8.4 Not burn waste materials on site. Waste materials that cannot be reused shall be taken for disposal at an approved disposal facility during construction activities.
- 8.5 Promote waste minimisation and the reuse and/or recycling of waste materials and other suitable materials where practical. Topsoil/overburden materials shall be reused, e.g., for reclamation/landscaping, after construction works are completed.

Maintain an adequate number of portable toilets on-site to meet the needs of employees and contractors and maintain the environs both internally and externally in a hygienic manner during construction. Portable toilets should be:

- i. placed on a mound to prevent surface water from entering;
 - ii. positioned at least one hundred (100) metres away from surface water, creeks, wells or springs;
 - iii. positioned at least four (4) metres away from any dwelling (such as camps, residential areas and any sleeping and living quarters, etc.);
 - iv. easily accessible during bad weather and not cause odour; and
 - v. emptied on a regular basis.
- 8.6 Construct and maintain a septic tank system on site. 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*.

9.0 COMPLIANCE MONITORING AND REPORTING

- 9.1 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.
- 9.2 Monitor the implementation of the conditions of this Environmental Permit (Renewed), insofar as they involve adherence by your employees and all third parties under your direction.
- 9.3 Submit to the EPA, the Environmental Annual Report on the status of the Project, progress of the implementation of the monitoring activities and compliance with the conditions contained herein by **March 31** every year (Please see attached, the *Guidelines for the preparation of Environmental Annual Reports*).
- 9.4 Inform the Agency prior to or within **thirty (30) days** of any change of name or ownership of the operation.
- 9.5 Notify the Agency within **twenty-one (21) days** in the event of bankruptcy, liquidation or receivership of the Permit Holder or if the Company becomes a party to an amalgamation.
- 9.6 Notify the Environmental Protection Agency **within one (1) hour** of the occurrence of any environmental emergencies (e.g., oil spills, hazardous materials/wastes spill, sudden onset disaster, natural, technological or human-induced factors that cause or threaten to cause severe environmental damage as well as harm to human health or livelihood).
- 9.7 Report to the Agency of non-compliance with the Environmental Permit (Renewed):
 - i. Within **twenty-four (24) hours** of the time the Holder of the Environmental

Authorisation for Operation becomes aware of the non-compliance outlining the anticipated manner in which human health or the environment may be impacted

ii. Within **seventy-two (72) hours** of the time the Holder of the Environmental Permit (Renewed) becomes aware of the non-compliance, submit to the Agency a written report containing a description of the non-compliance, its cause, the period of non-compliance including exact dates and time and the anticipated time it is expected to continue if the non-compliance(s) has not been corrected.

9.8 It is the responsibility of the Permit Holder to ensure the permitted activity and premises are secured and that all practicable steps necessary to prevent fires, explosions, leaks or suspected leaks and spills at the permitted premises are taken.

10.0 INSTITUTIONAL AUTHORITY/LIABILITIES

10.1 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 and the Environmental Protection (Amendment) Act, 2005, and Environmental Protection (Authorisations) Regulations, 2000.

10.2 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.

10.3 The EPA shall have the right to modify, cancel or suspend this Permit for breach of any of the terms and conditions contained herein.

10.4 The Permit Holder, His Servants, Agents and/or Sub-Contractors 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, 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.

10.5 The Permit Holder, his Servants and/or Agents shall be liable for discharging, causing or permitting the entry into the environment, of any contaminant in any amount, concentration or level excess of that prescribed by the regulations or stipulated by this Environmental Permit (Renewed), pursuant to s. 19 of the Environmental Protection Act, Cap. 20:05, Laws of Guyana.

10.6 The Permit Holder shall be liable for any serious environmental harm caused by

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polluting the environment, pursuant to s. 39 of the Environmental Protection Act, Cap. 20:05, Laws of Guyana.

- 10.7 The Permit Holder shall be liable for any activity that causes or is likely to cause pollution of the environment unless all reasonable and practicable measures are taken to prevent or minimize any resulting adverse effect, pursuant to s. 19 of the Environmental Protection Act, Cap. 20:05, Laws of Guyana.
- 10.8 The Permit Holder shall be liable to compensate any person who suffers any loss or damage as a result of contravening conditions 7.3 and 7.4 of this Environmental Permit (Renewed), pursuant to s. 19 of the Environmental Protection Act, Cap. 20:05, Laws of Guyana.
- 10.9 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.
- 10.10 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.
- 10.11 Where it appears to the Agency that the Permit Holder is engaged in any activity that may pose a serious threat to natural resources or the environment, or a risk of serious pollution of the environment or any damage to public health, the EPA may issue to the Permit Holder a Prohibition Notice, which may order him to immediately cease the offending activity, in accordance with Section 27 of the Environmental Protection Act, Cap. 20:05, Laws of Guyana.
- 10.12 The Permit Holder shall be liable of any gross negligence or wilful misconduct caused by the Permit Holder, his Servants and/or Agents, to the environment, biodiversity, protected species and natural habitat with respect to any release or discharge, spill, contaminant fluids, oil or lubricants.
- 10.13 **This Environmental Permit (Renewed) is not the final consent; all relevant Permissions should be obtained from other regulatory bodies for continued operation.**
- 10.14 This Environmental Permit (Renewed) is effective for the period stipulated herein **November, 2021 to October, 2023.**
- 10.15 This Environmental Permit (Renewed) shall remain valid until **October, 2023**, unless otherwise suspended, cancelled, modified or varied, in accordance with the

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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.

10.16 This 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 **April 30, 2023**.

10.17 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 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 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.

10.18 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, the Environmental Protection (Amendment) Act, 2005, and the Environmental Protection (Authorisations) Regulations, 2000, including under any existing and forthcoming regulations made under the said Act or any other applicable Laws of Guyana

Signed by *Kemraj Parsram* on behalf of the Environmental Protection Agency
Kemraj Parsram
 Executive Director

Date 2021.10.28

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	JERMAINE CRITCHLOW
DESIGNATION	SUSTAINABILITY MANAGER
SIGNATURE	<i>[Signature]</i>
DATE	29.11.2021



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