



**Environmental
Protection
Agency**

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Operation 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.:	20120514 - RMCQS
Fees:	Medium (C1) - US\$2500 (5 years), i.e. US\$500 per year
Fees Paid	US\$2500 (May, 2019 to April, 2024)

Addressee (s): Grantley W. Walrond
Managing Director
RMC Silica Company Ltd.
305, Meadowbrook Gardens
Georgetown.



Activity : Operation of a Sand Mine

Grantley W. Walrond, trading and operating under the name RMC Silica Company Limited, 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 operate a Sand Mine located at Vreed-en-Rust, West Bank Demerara, hereinafter referred to as the "Project", in a manner indicated in the Renewal Application submitted on June 12, 2018, subject to the terms and conditions set forth herein 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 Environmental Permit (Renewed), Reference # 20120514-RMCQS, issued on November 30, 2013, and expired on October 31, 2018. This Operation Permit-Renewed is issued pursuant to the Environmental Protection (Authorisations) Regulations, 2000.

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

1.0 OPERATION

- 1.1 Notify the Agency in writing and obtain its approval for **ANY** proposed changes in operation of the Sand Mine at least **fourteen (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 functioning, or an extension, of the installation, which may have consequences for the environment.
- 1.2 Re-submit to the EPA, an electronic copy of the Environmental Management Plan within two (2) months of the issuance of this Operation Permit (Renewed).
- 1.3 Undertake mining and processing of sand (silica) only at the project site (**Vreed-en-Rust, West Bank Demerara**). **Mining of other minerals in this area for commercial or any other purposes is strictly prohibited at all times.**
- 1.4 Adhere to the terms and conditions outlined in the **EPA/GGMC Draft Code of Practice for Sand and Sapolite Mining** at all times.
- 1.5 Ensure that boundary limits for the site claims are clearly demarcated.
- 1.6 Ensure proper signage and security measures are instituted to keep unauthorised persons from accessing restricted and high-risk areas in the mine claims.
- 1.7 Provide adequate fire protection measures in all operating areas. Place firefighting equipment such as fire extinguishers, sand buckets, fire pumps at visible locations on site, in accordance with the requirements of the Guyana Fire Service's (GFS).
- 1.8 Ensure that the transport of mined material (ore, overburden, etc.) from the mines to the processing facility and conveyor system is done in a manner that prevents adverse impacts to the environment.

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2.0 EMPLOYEES

- 2.1 Ensure training is conducted for all employees in the areas of occupational safety and health, first aid response, the use of fire safety equipment and emergency response. Also provide proof of any training provided in the use and application of the Environmental Authorisation (**Operation Permit – Renewed**).
- 2.2 Ensure all employees/third party contractors are aware of the Conditions of the **Operation Permit (Renewed)** and provided training on good environmental management practices. Prepare and maintain a training file for employees which should be available upon EPA's request during Compliance Inspection.
- 2.3 Provide and ensure all employees are equipped with Personal Protective Equipment relevant to their activity at the processing plant and are trained in the proper use of same. Prepare and maintain an employee log of distribution of Personal Protection Equipment.
- 2.4 Provide first aid kits at the work site and ensure that communication and transportation systems are in place to respond to emergencies.
- 2.5 Prohibit the capture, trade and removal of wildlife from the project area by employees.
- 2.6 Retain an Environmental Officer that would be responsible for coordinating Environmental Management, implementing the conditions of this Permit, ensuring employees are trained in environmental management and Emergency Response Procedures and capable of monitoring for compliance with this Permit.

3.0 MINING OPERATION

- 3.1 Demarcate the 'high' ground water depth. Conduct excavation to a depth that leaves two (2) m above the water table. No mining is allowed at or below the water table.
- 3.2 Maintain the processing facilities at the site, no less than 500 metres away from all sensitive environment in the vicinity of the project site.
- 3.3 Ensure that top soil (overburden) is stored within three (3) m of natural vegetation or mine face. Top soil and vegetation should be carefully stripped and stockpiled in an allocated area marked by a sign, so that it can be used for reclamation and re-vegetation as mining finishes.
- 3.4 As far as possible, divert surface water runoff from higher mine benches to prevent it from reaching lower workings.
- 3.5 Store overburden stockpiles away from drainage systems and beyond 100 metres of any water course and active mine pit.
- 3.6 Direct runoff from the overburden stockpile areas into a forested environment.
- 3.7 Progressively rehabilitate the site allocating at least, one (1) m of the topsoil

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(including all vegetation cleared from the site) to be used as backfill material. Rehabilitation will include reduction of slopes to prevent landslides and/or erosion and re-vegetation.

- 3.8 In the mined-out areas, level and grade steep slopes, install drainage, backfill depressions and prepare ground in a manner that result in a stable state that blends in with the surrounding area and allows for progressive reclamation.

4.0 HAUL ROADS

- 4.1 Ensure the running surface of the haul road is crowned with a compacted layer and equipped with good drainage on both sides of the road shoulder to catch and direct stormwater to the local drainage system.
- 4.2 Ensure that the haul road between the wharf and processing facilities at Vreed-en-Rust is constructed of Laterite or other suitable road construction material to minimize the possibility of dust nuisance of the area.
- 4.3 Minimize the clearing of vegetation during road construction by restricting the width of road corridors as much as possible.
- 4.4 Ensure all reasonable and practical measures such as the provision of turnout drains at regular intervals are implemented to prevent erosion of roads.
- 4.5 Ensure adequate safety signs are erected along all roads informing users of dangerous bends, crossing of haul trucks, speed limits, etc.

5.0 HAZARDOUS MATERIALS/WASTES MANAGEMENT

- 5.1 Adhere to the provisions of the Environmental Protection (Hazardous Waste Management Regulations, 2000), as follows:
- 5.1.1 Take the necessary precautionary measures such as leak proofing of containers during the transport of fuels to project site. Appropriate measures should also be taken during the handling and use of all Hazardous Waste materials.
- 5.1.2 There shall be no release of any pollutants (i.e. fuel, oils, lubricants and waste oil) to ground water or soil. Accidental release of pollutants to soil and ground water should be recorded and be reported within 24 hrs to the Agency for further investigation.
- 5.1.3 Maintain a fuel containment bund with 110 percent containment capacity of the largest storage tank/container, which must have an impervious surface for the handling of all oils, lubricants, waste oils and fuels.
- 5.1.4 Store waste oil, used batteries and other hazardous materials in a covered, bunded area to minimise adverse impacts to the environment in the event of spillage. The bunded area must be able to provide containment for the maximum volume of waste oil on site. It is an

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offence to drain fuel/ lubricants including waste oils of any quantity from equipment onto the ground, drains or water ways.

5.1.5 Promote the reuse of waste oil, for example, lubrication of equipment, where practical.

5.2 Label, store and dispose of waste oil in a manner approved by the EPA.

5.2.1 Waste oil, oily rags, filters, contaminated soil and oil containers should be stored in a tightly lid containers in a centralized location.

5.6.2 Collect and store used batteries on site in a manner approved by the EPA. Used batteries should be sold to Authorised dealers. Please see attached list of authorised dealers.

5.3 Ensure all fuel and waste oil containers are adequately elevated so that leaks are easily identifiable.

5.4 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) A summary of any accidents that may have occurred and any action taken.
- e) Any waste minimization efforts undertaken by the generator.
- f) A pollution prevention plan for the facility.
- 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 Format for Recording and Reporting of Hazardous Waste.

6.0 WASTE MANAGEMENT

6.1 Adhere to the provisions of the Environmental Protection (Litter Enforcement) Regulations, 2013, as far as possible.

6.2 Maintain good housekeeping, sanitary and hygienic practices, and the aesthetic quality of your surroundings at all times.

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- 6.3 Ensure that waste disposal sites are located at least 500 meters away from watercourses, residences or farmland and above the highest ground water table level of the area.
- 6.4 Ensure that waste disposal sites are properly managed to prevent contamination of ground water resources.
- 6.5 Ensure that proper solid waste management and disposal practices are employed at your facility. Waste shall not be disposed of in or near waterways, burnt or disposed of near forested areas.
- 6.6 Promote the reduction and reuse of waste generated from your facility.
- 6.7 Excavate and replace with clean soils, where identified, accessible and practical, all contaminated soils within the Project site and haul roads. Additionally, ensure that removed soils are treated preferably by means of bioremediation in an area pre-determined by the Company and approved by the EPA and or disposed in a manner approved by the EPA.
- 6.8 Where possible and practical, compost organic matter and reuse organic materials as fertiliser for re-vegetation of reclaimed areas.
- 6.9 Maintain a septic system on site at all times. The septic tank should not be located within 1.5m 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.

7.0 AIR QUALITY AND NOISE MANAGEMENT

- 7.1 Comply with the provisions of the **Environmental Protection (Air Quality) Regulation 2000 and the Environmental Protection (Noise Management) Regulation 2000, respectively.**
- 7.2 Comply with *Guyana National Bureau of Standards (GNBS) Guidelines Noise Emissions into the Environment*, not exceeding the limits below at a distance of 15 meters (50 feet) from the source or property boundary, whichever is closer.
 - Industrial Limits: **100 dB** (Daytime Limits 06:00 h-18:00 h)
80 dB (Nighttime Limits 18:00 h- 06:00 h)
- 7.3 Where applicable, employ practical measures to control and minimise fugitive dust at the stacker and all other related activities within the Mine Site.
- 7.4 Operate all mechanical equipment in accordance with the manufacturer's specifications. Additionally, ensure that all mechanical equipment and vehicles are regularly maintained and operated at their optimal levels to minimize atmospheric emissions.
- 7.5 Ensure that all significant noise-producing equipment, e.g. generators, etc. are

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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.

8.0 WHARF FACILITY

- 8.1 Ensure erosion protection is provided for any disturbed shoreline as appropriate, and re-vegetate with appropriate cover and ensure stability of slopes and shoreline.
- 8.2 Utilize the land in accordance with the plan submitted to the Agency. Adhere to all specifications of the location, reserve and boundary lines, unless otherwise authorized.

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 Operation Permit (Renewed), insofar as they involve adherence by employees and all third parties under your direction.
- 9.3 Report to the Agency of non-compliance with the **Operation Permit (Renewed)**:
 - 9.3.1 Within **twenty-four (24) hours** of the time the Holder of the Operation Permit (Renewed) becomes aware of the non-compliance, the anticipated manner in which it may endanger human health or the environment.
 - 9.3.2 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.
 - 9.3.3 Submit a report to the Agency indicating the reasons and the anticipated time it is expected to continue if the non-compliance has not been corrected.
- 9.4 Submit to the EPA, a detailed **Project Closure/Reclamation Plan** for approval six (6) months prior to closure. Thereafter, the closure plan will be updated and reviewed at a frequency agreed to with the Agency.
- 9.5 Submit to the EPA, the **Environmental Annual Reports** 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

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(Please see attached, *Guidelines for the Preparation of Environmental Annual Reports*).

- 9.6 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.
- 9.7 Notify the EPA of non-compliance with this Permit upon becoming aware of violation.
- 9.8 Inform the Agency prior to or within **thirty (30) days** of any change of name or ownership of the operation.
- 9.9 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.
- 9.10 Submit to the EPA, the Guyana Geology and Mines Commission renewed Quarry Licence within three (3) months of issuance. Roraima Mining Company Ltd., is hereby informed that amendments can be made to this Operation Permit-Renewed in accordance to the Guyana Geology and Mines Commission Quarry licence as it relates to condition 10.3 of this Renewed Operation Permit.
- 9.11 Inform the National Trust and Walter Roth Museum if any artifacts of archaeological and anthropological significance are unearthed during operations.
- 9.12 Report all occurrences of illegal wildlife trapping and trading in the project area to the Wildlife Conservation and Management Commission and EPA. The Permit Holder shall discourage the targeting, hunting and use of wildlife by its staff.
- 9.13 Be responsible for payment for all environmental audits and compliance monitoring associated with this Permit.
- 9.14 Conform to all terms and conditions under which this Permit is granted and be liable for any loss or damage which arises from the project as a result of the Permit Holder's activities or breach of any term or condition of this Permit.

10.0 INSTITUTIONAL AUTHORITY AND 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, the Environmental Protection (Amendment) Act, 2005, and the Environmental Protection (Authorisations) Regulations, 2000.
- 10.2 The EPA reserves the right to review and/or amend the permit 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.

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- 10.3 Adhere to the stipulations within the Mining Act, No. 20 of 1989, the Mining Regulations including the Mining (Amendment) Regulations, 2005.
- 10.4 The EPA shall have the right to cancel or suspend this Permit for breach of any of the terms and conditions contained herein.
- 10.5 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, 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 be liable to penalties prescribed under paragraph (c) of the Fifth Schedule for doing so.
- 10.6 This **Operation Permit (Renewed)** is not the final consent; all relevant permissions should be obtained from other regulatory bodies for continued operation.
- 10.7 The Permit Holder shall be strictly liable for any loss or damage to the environment through any act which intentionally or recklessly, causes an adverse effect due to any discharge or release, or causing or permitting 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) and (2) of the Environmental Protection Act, Cap. 20:05, Laws of Guyana).
- 10.8 The Permit Holder shall compensate any Party who suffers any loss or damage as a result of the attributed project. (s. 19(3) (e)) Environmental Protection Act Cap. 20:05, Laws of Guyana.
- 10.9 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).
- 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.
- 10.11 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, ordering him to immediately cease the offending activity. (S. 27 EP Act, Cap. 20:05.)
- 10.12 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 lack of due care and diligence.
- 10.13 This **Operation Permit (Renewed)** is effective for the period stipulated herein **(May, 2019 to April, 2024)**.

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- 10.14 This **Operation Permit (Renewed)** shall remain valid until **April 30, 2024**, unless otherwise suspended, cancelled, modified or varied, in accordance with the provisions of this Permit or the Environmental Protection Act, Cap. 20:05, the Environmental Protection (Amendment) Act, 2005, and the Environmental Protection (Authorisations) Regulations, 2000.
- 10.15 This **Operation Permit (Renewed)** 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 **October 31, 2023**.
- 10.16 Any late submission of renewal application(s) after the specified date as stated above, shall require the Permit Holder to pay, in addition to the renewal fee, a late penalty fee (accruing at the time such obligation was first owed for renewal) at a rate of **two thousand dollars (\$2,000.00) per day** for every day late, until such renewal application is submitted to the Agency, without prejudice to any other rights of the Permit Holder in connection therewith.
- 10.17 Failure to comply with the requirements of this Permit shall render the Permit Holder liable to prosecution and to civil penalties and/or injunctive reliefs prescribed under the Environmental Protection Act, Cap. 20:05, Laws of Guyana, the Environmental Protection (Amendment) Act 2005, and the Environmental Protection Regulations, including under any existing and forthcoming regulations made under the said Act or any other applicable Laws of Guyana.

Signed by


Dr. Vincent Adams, Director
Executive Director
Environmental Protection Agency

on behalf of the Environmental Protection Agency.

Date:

5/7/19

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I hereby accept the terms and conditions upon which this Operation 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, and the Environmental Protection (Authorisations) Regulations, 2000, and any existing or forthcoming regulations, best practices, guidelines and standards made under this Act.

NAME:	Dr. GRANLEY W. WALROND.
DATE:	29th May 2019
DESIGNATION:	Managing Director
SIGNATURE:	