

Ganges Street, Sophia, Georgetown, GUYANA Tel.: (592) 225-0506 Fax: (592) 225-5481

Email: epa@epaguyana.org

Website: http://www.epaguyana.org

Environmental Permit (Modified)

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.:	20211230_CPPGD
Fee:	Medium (C1) - US\$500 per year
Fees to be Paid:	US\$2500 for Five (5) years (May, 2022 – April, 2027)
Addressee:	Suresh Jagmohan Managing Director DCSN Manufacturing Inc. Lot 32, First Street Campbellville Georgetown
Activity:	Concrete Batching

DCSN Manufacturing Inc., hereinafter referred to as the "Permit Holder", is hereby authorised in accordance with the Environmental Protection Act, Cap 20:05, the Environmental Protection (Amendment) Act, 2005, and Environmental Protection (Authorisations) Regulations, 2000, to operate a concrete batching plant to produce pre-stress and pre-cast concrete at Lot 724 Block XXII Zone, Plantation Great Diamond, East Bank Demerara, hereinafter referred to as the "Project", in the manner indicated in the Application for Environmental Authorisation submitted on August 30, 2021 and 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 other applicable laws, guidelines, best practices and standards relevant to this project.

This is a Modification of the Environmental Permit Reference No. 20211230_CPPGD, issued on May, 2022, and will expire on April, 2027.

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

1.0 GENERAL OPERATION

- 1.1 Make an application to the Agency to vary this Permit in instances where it becomes necessary to:
 - i. change the construction, operation, structure, or layout of the facility and all

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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 Regulation 20(3) of the Environmental Protection (Authorisations) Regulations
- 1.2 Standard Operating Procedures (SOPs) for safe Operation of the Batching Plant and other associated equipment shall be established and maintained.
- 1.3 All employees shall be trained on these SOPs outlined in **condition 1.2** above. Training records shall be maintained and submitted to the EPA upon request.
- 1.4 Make all employees, and third parties under your direction, aware of the conditions of the Environmental Authorisation and provide training on good environmental practices. Annual training schedule shall be submitted in the **Annual Report.**
- 1.5 Servicing and maintenance of the Batching Plant, generator(s), and other equipment shall be conducted in accordance with manufacturer's specification. Summarised maintenance records shall be maintained and submitted to the EPA upon request.
- 1.6 An automated system shall be maintained to support the manual shut off of the Batching Plant in cases of emergencies.
- 1.7 The Batching Plant, trucks, generators and other associated equipment shall at all times be mounted or parked on impervious bases, to prevent fuel spills and leaks from entering the soil.
- 1.8 An Emergency Response Plan (ERP) shall be established and maintained for the Project. The Plan shall include, but not be limited to procedures for addressing all possible emergencies including spills and fires, local emergency response authorities, notification of national and local authorities, coordination of clean-up activities and assessment of health hazards to humans and the environment. A copy of the ERP shall be submitted to the EPA by May 30, 2022.
- 1.9 Adhere to the requirements of the Occupational Safety and Health Act, Cap. 99:06, Laws of Guyana.

2.0 AIR QUALITY MANAGEMENT

- 2.1 Adhere to the provisions of the Environmental Protection (Air Quality) Regulations, 2000.
- 2.2 Best Available Technologies (BATs) shall be implemented to prevent the overfilling of silo and bulk containers holding dusty materials beyond capacity.

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- 2.3 Sealed tanker trucks shall be used to transport and off-load cement to the plant.
- 2.4 Driveways and passageways within the Project shall be maintained with an impervious material such as crusher run, asphalt road to reduce dust emissions.
- 2.5 Monitor ambient air quality at the boundary of the property to assess compliance with the requisite standards below:

Air Pollutant	Averaging	Maximum Permissible	Type of Monitoring
	Time	Level	
$PM_{2.5}$	24h	25 μg/m³	Ambient
PM_{10}	24h	50μg	Ambient

Monitoring shall be conducted during normal operations by trained personnel utilising calibrated equipment. An air quality monitoring plan shall be submitted to the EPA for approval by May 30, 2022.

Monitoring of the parameters above shall be conducted in accordance to the approved monitoring plan and the results shall be submitted to the Agency as part of the Annual Report.

- 2.6 Particulate matter and dust suppression methods shall be maintained around the stock piles and plant which includes but not limited:
 - 2.6.1 Wet suppression/watering shall be implemented to control dust emissions from material stockpiles, and other components of the operation that contributes to dust emissions in accordance with a schedule;
 - 2.6.2 Dust screens/fences shall be erected to control particulate matter/dust emissions;
 - 2.6.3 Stockpiles of sand and other dusty materials shall be located in an area of low winds as far as possible from nearby residents;
 - 2.6.4 Storage of sand and stone and other aggregates on the roadway and government reserves is strictly prohibited;
 - 2.6.5 Stockpiles shall be relatively flat on top, and not exceed a height of eight (8) feet;
 - 2.6.6 Material shall be removed from the stockpile on the leeward side.
 - 2.6.7 All stockpiles of sand and other dusty materials shall be covered with tarpaulin or other suitable material, when not in use for extended periods, to prevent particles from becoming airborne.

3.0 NOISE MANAGEMENT

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

- 3.1 Adhere to the provisions of the Environmental Protection (Noise Management) Regulations, 2000.
- 3.2 All significant noise-producing equipment, such as generators, shall be equipped with silencers or mufflers and/or be enclosed in suitable acoustic enclosures where necessary; to reduce noise levels impacting the surrounding environment to achieve compliance with Guyana National Bureau of Standards (GNBS) requirement.
- 3.3 Noise emissions shall be monitored at the boundaries of the property to determine compliance with Guyana National Bureau of Standards (GNBS) Guidelines for Noise Emissions into the Environment.

Industrial Limits:

- Daytime Limits (06:00 h- 18:00 h) 100 dB
- Nighttime Limits (18:00 h − 06:00 h) − 80 dB

The Permit Holder shall submit a noise quality monitoring plan to the EPA for approval by May 30, 2022.

Monitoring of the parameters above shall be conducted in accordance to the approved monitoring plan and the results shall be submitted to the Agency as part of the Annual Report.

4.0 WATER QUALITY MANAGEMENT

- 4.1 Adhere to the provisions of the Environmental Protection (Water Quality) Regulations, 2000.
- 4.2 The project shall maintain the integrity of the existing waterways at all times. 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*. The following are the allowable limits for the general environment and should not be exceeded:
 - > pH 5.0-9.0;
 - > Temperature < 40 °C;
 - ➢ Biological Oxygen Demand (BOD₅) < 50 mg/L;</p>
 - ➤ Chemical Oxygen Demand (COD) < 250 mg/L;
 - ➤ Total Suspended Solid (TSS) < 50 mg/L;
 - > Oil and Grease < 10 mg/L; and

The Permit Holder shall submit a water quality monitoring plan to the EPA for approval by May 30, 2022.

Monitoring of the parameters above shall be conducted in accordance to the approved monitoring plan and the results shall be submitted to the Agency as part of the Annual Report.

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- 4.3 Discharge of untreated liquid effluent into the surrounding waterways is **strictly prohibited**.
- 4.4 An Oil-Water separator shall be constructed and maintained at the final discharge point from the Facility in accordance with the Environmental Protection Agency guidelines by **June 30, 2022.**
- 4.5 All wastewater (concrete washout) shall be directed to the **sedimentation pond** for collection and treatment.
 - 4.5.1 Dried sediments shall be collected and reused in the batching process if applicable; and
 - 4.5.2 Discharge of sediments into waterways is strictly prohibited, where applicable this can be used as landfills.
- 4.6 Any chemical spills occurring during handling and loading of admixtures, **shall be** immediately cleaned and disposed as guided by the respective Safety Data Sheet, at an EPA authorised disposal facility.
- 4.7 Adequately sloped perimeter drains shall be maintained to collect storm flow. Storm water discharges shall be directed away from the washout bund.
- 4.8 Fuel/lubricants including waste oils shall not be drained from equipment onto the ground or into waterways.

5.0 STORAGE OF HAZARDOUS MATERIALS (ADMIXTURES AND FUEL)

- 5.1 A register of the hazardous materials managed by the Project shall be established and maintained. The registered information shall be maintained and submitted to the EPA upon request.
- 5.2 Emergency spill clean-up kits shall be readily available, clearly identified and maintained at the Project for response to spills. Kits must contain absorbent materials, drain seals and other appropriate tools for clean-up.
- 5.3 Admixture Storage Areas shall be clearly labeled with "Chemical Storage Area-Authorized Personnel Only" where applicable as a spill control measure.
- 5.4 Safety Data Sheets for all admixtures shall be readily available and easily accessible at all times at the Project.
- 5.5 Admixtures shall be stored in accordance with the manufacturer's directions or Safety Data Sheet (SDS) instructions.
- 5.6 The SDS of the Admixture shall be adhered to regarding material incompatibility with other materials stored by the Project.

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- 5.7 Secondary containment (bunded area) shall be established and maintained around storage areas of all liquid Admixtures and Fuel. The secondary containment shall have:
 - i. A volume equivalent to the volume of liquid stored within the largest storage container and;
 - ii. Walls constructed of impermeable materials.
- 5.8 Admixture containers shall be clearly labelled in accordance with the Globally Harmonized System of Classification and Labelling. The following must be evident:
 - i. Signal Word;
 - ii. GHS Symbols- (Hazard Pictograms);
 - iii. Manufacturer Information;
 - iv. Precautionary Statements/ First Aid;
 - v. Hazard Statements; and
 - vi. Product Name or Identifiers.
- 5.9 Admixtures **shall not** be stored on damaged, or inadequately secured racking or on damaged pallets to minimise the risk of spills.
- 5.10 Project incompatible materials **shall not** be stored in close proximity to admixtures.
- 5.11 Chemical storage containers shall be inspected for signs of leakage or corrosion and damaged containers **must be** replaced **immediately.** Inspection reports must be maintained and signed by the appropriate qualified inspecting officer and his/her supervisor.
- 5.12 All employees involved in the management of admixtures shall be trained on Hazardous Material Communication and Emergency Preparedness Response. Training records shall be maintained and submitted to the EPA upon request.
- 5.13 All expired Admixture shall be returned to source for treatment and/or disposal. Where applicable Local Hazardous Waste Treatment Companies approved and authorized by the EPA may be utilized.

6.0 WASTE MANAGEMENT

- 6.1 Adhere to the provisions of the Environmental Protection (Hazardous Waste Management) Regulations, 2000.
- 6.2 In accordance with the Environmental Protection (Litter Enforcement) Regulations, 2013, promote good sanitation and solid waste disposal practices on site; covered garbage receptacles must be placed at strategic locations at the facility.
- 6.3 Waste materials shall not be burnt on site. All solid waste shall be disposed at an Page $\bf 6$ of $\bf 10$

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approved solid waste disposal site.

- 6.4 Promote waste minimisation and the reuse and/or recycling of waste and other materials where practical.
- 6.6 Waste collection areas shall be kept clean. Dry methods shall be used when cleaning around waste handling and disposal areas (e.g., sweeping, use of absorbents).
- 6.8 Hazardous waste (Oily rags, waste oil, etc.) generated from the servicing of the vehicles and generator onsite shall be collected, stored and treated by an EPA Authorized Hazardous Waste Treatment Facility.

7.0 COMPLIANCE MONITORING AND REPORTING

- 7.1 Notify the Environmental Protection Agency within **one (1) hour** of the occurrence of any environmental emergencies (e.g. oil spills, hazardous materials/wastes spills, 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).
- 7.2 Monitor the implementation of the conditions of this Permit, insofar as they involve adherence by your employees and all third parties under your direction.
- 7.3 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.
- 7.4 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.
- 7.5 Maintain and submit to the Agency records of the type, composition and quantity of contaminant released (i.e., any solid, liquid, gas, odor, sound, vibration, radiation, heat or combination of any of them).
- 7.6 Submit an **Annual Report** to the EPA on your compliance with this Environmental Permit (Modified) on or before **March 31**, **each year**.
- 7.7 Report to the Agency any non-compliance(s) with the Environmental Permit (Modified):
 - 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 (Modified) becomes aware of the non-compliance, submit to the Agency a written report containing a description of the non-compliance, its cause, the Page 7 of **10**

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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.

- 7.8 Comply with any lawful directions given by the EPA from time-to-time in furtherance of the implementation of any international or other obligation for the environmental protection of Guyana.
- 7.9 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.

8.0 INSTITUTIONAL AUTHORITY/ LIABILITIES

- 8.1 The Permit Holder shall be liable for any material environmental harm caused by polluting the environment, pursuant to s. 39 of the Environmental Protection Act, Cap. 20:05, Laws of Guyana.
- 8.2 The Permit Holder shall be liable for any serious environmental harm caused by polluting the environment, pursuant to s. 39 of the Environmental Protection Act, Cap. 20:05, Laws of Guyana.
- 8.3 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.
- 8.4 The Permit Holder 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, pursuant to s. 19 of the Environmental Protection Act, Cap. 20:05, Laws of Guyana.
- 8.5 The Permit Holder shall be liable to compensate any person who suffers any loss or damage as a result of contravening conditions 8.3 and 8.4 of this Environmental Permit, pursuant to s. 19 of the Environmental Protection Act, Cap. 20:05, Laws of Guyana.
- 8.6 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.
- 8.7 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.

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- 8.8 Should the Permit Holder contravene or be 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.
- 8.9 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.
- 8.10 The EPA reserves the right to conduct regular inspections of the Permit Holder's 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.
- 8.11 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 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.
- 8.12 The EPA has the right to modify, cancel or suspend this Permit for breach of any of the terms and conditions contained herein.
- 8.13 This Environmental Permit (Modified) is not the final consent; all relevant Permissions should be obtained from other regulatory bodies for continued operation.
- 8.14 This Environmental Permit (Modified) is effective for the period stipulated herein; May, 2022 to April, 2027.
- 8.15 This Environmental Permit (Modified) shall remain valid until **April 30, 2027** 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.
- 8.16 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 **October 31**, **2026**.
- 8.17 Any late submission of renewal application (s) after the specified date as stated Page 9 of 10

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above, 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.

8.18 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, the Environmental Protection Regulations and other applicable laws of Guyana

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Signed by	The same of the sa

on behalf of the Environmental Protection Agency

Kemraj Parsram Executive Director

I hereby accept the above terms and conditions upon which this Environmental Permit (Modified) is granted and agree to abide by the Environmental Protection Act, Cap, 20;05, Laws of Guyana, Environmental Protection (Amendment) Act, 2005, the Environmental Protection (Authorisations) Regulations, 2000, and any existing or forthcoming regulations, guidelines, best practices and standards made under this Act.

NAME:	SHANGICE CAMACHO	
DESIGNATION:	EMITRONNIENTAL OFFICER	
SIGNATURE:	Danacho	
DATE:	06/10/22	, mu