



**Environmental
Protection
Agency**

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Operation 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.:	20210216-GOESW
Fee:	Medium (C1) i.e., US\$ 500 per year
Fee Paid:	US\$2,500 for Five (5) years (August 2021- July 2026)
Addressee:	Mr. Terry Singh Director Global Oil Environmental Services (Guyana) Inc. Lot 38, Croal Street, Stabroek, Georgetown
Activity:	Operation of a Waste Management Facility for Exploration and Production (E&P) Oil and Gas Wastes

Global Oil Environmental Services (Guyana) Inc. (GOES), 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 the Environmental Protection (Authorisations) Regulations, 2000, to operate a Waste Management Facility for Exploration and Production (E&P) Oil and Gas Wastes at Block 'X' 'TE' Huiste, Block I, 'T' Hustle Coverden, East Dank Demerara, hereinafter referred to as the "Project", in a manner indicated in the Application for Environmental Authorisation submitted on February 16, 2021, and subject to the terms and conditions set forth herein under the Environmental Protection Act, Cap. 20:05, Laws of Guyana, existing and/or forthcoming Regulations made under the said Act, and/or any applicable laws, guidelines, best practices and standards relevant to this project.

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

1.0 OPERATION

Adhere to Guyana's Occupational, Health and Safety Laws and Regulations.

- 1.1 Notify the Agency in writing and obtain its approval for **ANY** proposed changes in the Project 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

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permit has been submitted to the EPA, 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 including but not limited to the following:

- i. Changes in construction, structure, or layout of the facility and all associated buildings.
 - ii. Installation of new and/or changes to equipment, machine, apparatus, mechanism, system or technology serving the facility.
 - iii. Any technology used or installed at the facility from which effluent may be discharged.
 - iv. Any other circumstance or condition prescribed by Regulation 20(3) of the Environmental Protection (Authorisations) Regulations.
- 1.2 Operation, inspection, maintenance and repair of storage and treatment frac tanks, shall be in accordance with manufacturer's specification. A summarised copy of the inspection and maintenance report shall be submitted to the Agency as a component of the **Annual Report**.
- 1.3 Emergency spill clean-up kits shall be maintained on site for response to spills. Kits must contain absorbent materials, drain seals and other appropriate tools for clean-up. Kits must be readily available and clearly identified at the Project.
- 1.4 All employees involved in the management of Exploration and Production wastes and operation of the Project shall be trained on Hazard Communication and Emergency Preparedness and Response. The annual training schedule shall be submitted to the Agency as part of the **Annual Report**.
- 1.5 Guyana Fire Service Approval shall be maintained annually and shall be submitted as a component of the **Annual Report**. The Project shall maintain fire prevention and control equipment in accordance with this approval.

2.0 TRANSPORTATION OF Exploration and Production WASTES

- 2.1 A highly visible and legible label shall be affixed to the vehicles transporting the Exploration and Production wastes and shall include the following information:
- Danger**
Contains Hazardous Waste
- 2.2 Exploration and Production wastes shall be transported in accordance with the Transportation Plan submitted and approved by the EPA on July 16, 2021.
- 2.3 Exploration and Production wastes shall be transported in 130bbl vacuum tanker trailers. Tankers shall be sealed and labelled during transport.

- 2.4 Each individual tanker shall be labelled with the content (waste name) and the hazardous characteristic or property of the waste contained therein.
- 2.5 A trained operator or carrier shall supervise, monitor and control the transfer and transportation of hazardous wastes.
- 2.6 Emergency spill cleanup kits shall be maintained on each vehicle for response to potential spills. Kits shall contain absorbent materials, drain seals and other appropriate tools for clean-up.
- 2.7 A manifest shall be maintained and available during each transportation of waste. The manifested information must contain the following:
 - i. The name and address of the generator;
 - ii. The name, description and hazard class of the waste;
 - iii. The number and type of containers;
 - iv. The quantity of waste being transported and collected; and
 - v. The name and address of the facility designated to receive the waste
- 2.8 Subsequent to each transportation of Exploration and Production waste, the manifest referred to in **Condition 2.7** shall be submitted to the EPA via email at: industry@epaguyana.org.
- 2.9 An incident spill report shall document **EVERY** occurrence of spills during collection and/or transportation of E&P waste. A copy of the spill report shall be submitted to the Agency **within twenty-four (24) hours of the incident**.
- 2.10 Clearly marked routes for vehicle movements shall be delineated at the Project. This route must be kept clear of waste material and free of obstacles, surface water drainage systems and equipment.

3.0 WASTE ACCEPTANCE

- 3.1 The Project shall **ONLY** accept Exploration and Production wastes as identified by the approved Waste Acceptance Criteria.
- 3.2 Exploration and Production wastes containing NORM shall not be treated by the Project.

4.0 EXPLORATION AND PRODUCTION WASTES HANDLING AND STORAGE

- 4.1 Where applicable, Exploration and Production waste storage areas shall possess ventilation in accordance with at least one of the following:
 - i. Gravity ventilation to the outside with a capacity of one cubic foot per

- minute per square foot or floor space
 - ii. Mechanical ventilation with on/ off switches at points of ingress that are capable of exhausting to the outside.
 - iii. Natural ventilation
- 4.2 Exploration and Production wastes shall be segregated and stored in individual steel lined 500bbl frac tanks. Each frac tank shall maintained secondary containment at a capacity of 110% of the volume of the tank.
- 4.3 Exploration and Production wastes shall be stored away from ignition sources and in accordance with their hazard characteristics compatibility.
- 4.4 Exploration and Production waste storage tanks shall remain sealed during storage, except when it is necessary to add or remove waste.
- 4.5 Exploration and Production waste storage tanks shall be labelled with the following:
 - i. The words "**Hazardous Waste**"
 - ii. The type of waste
 - iii. Beginning accumulation date- the date hazardous waste was first placed in the storage tank shall be recorded on the tank.
- 4.6 Exploration and Production wastes storage tanks shall be inspected for signs of leakage, deterioration or corrosion and damaged tanks **must be replaced immediately**. Inspection reports must be maintained and signed by the appropriately qualified inspecting officer and his/her supervisor.
- 4.7 Safety Data Sheets relevant to Exploration and Production wastes shall be readily available and easily accessible at all times at the Project.
- 4.8 A register of the types and quantities of Exploration and Production wastes accepted, the signed copies of manifests, records of test analyses and waste analyses shall be maintained onsite. The register must also record the source of waste generation for each waste type accepted. A summary of the registered information shall be submitted to the Agency as part of the **Annual Report**.
- 4.9 Standard Operating Procedures (SOPs) for safe transfer operations (from storage tanks to the treatment tanks) and filling of storage tanks shall be established and maintained. Copies of these SOPs shall be submitted to the Agency as a component of the **Annual Report**.
- 4.10 All employees shall be trained on these SOPs outlined in **Condition 4.9**. An Annual training schedule shall be submitted to the Agency as a component of the **Annual Report**.

5.0 PHYSICAL AND CHEMICAL TREATMENT OF E&P WASTES

- 5.1 The Project shall undergo a trial/verification test of treatment technology prior to commencement of Operations. The Agency shall be notified of the proposed date for this trial test.
- 5.2 Treatment of Exploration and Production wastes shall occurred in above ground double walled steel tanks. Secondary containment shall be maintained around each treatment tank, at a capacity of 110% of the volume within the tank.
- 5.3 Connecting pipelines between treatment and recovery tanks shall be maintained above ground and coated with anticorrosive material.
- 5.4 All pipelines shall be routed above the secondary containment.
- 5.5 Overfill protection shall be maintained on all tanks. This may include an automatic shut off device or an audible or visible overfill alarm.
- 5.6 The Exploration and Production wastes treatment area shall maintained natural ventilation.
- 5.7 The application of the physical, chemical and biological processes or treatments to Exploration and Production wastes shall be in accordance with the methods outlined in the Waste Acceptance Criteria approved on July 16, 2021.
- 5.8 Chemicals used for waste treatment shall be stored in containers compatible to the chemicals. A bund or drip tray shall be provided to catch any spill from the container or its ancillary pipe work or equipment.
- 5.9 Chemicals 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
 - vi. Product Name or Identifiers
- 5.10 Recovered oil shall be stored in steel tanks within a bund or berm to provide secondary containment at a capacity of 110% of the volume of the largest tank.
- 5.11 Solid wastes generated from the treatment process **shall be** subjected to Toxicity Characteristic Leaching Procedures prior to reuse or disposal. TCLP analysis shall be summarised and submitted as a component of the **Annual Report**.

- 5.12 Treated solid Exploration and Production wastes shall be stored in hopper tanks.
- 5.13 The following records shall be maintained at the Project:
1. Waste treatment verification results
 2. Operating logs
 3. Shutdown events
 4. Monitoring process parameters
 5. Failed batches and their re- treatment
- 5.14 The records outlined in condition 5.13 shall be submitted to the EPA as a component of the **Annual Report**.
- 5.15 Exploration and Production wastes treated by the HTDU shall be documented on **Waste Manifest Forms** which must submitted to the EPA as a component of **the Annual Report**.

6.0 WATER QUALITY

Adhere to the provisions of the **Environmental Protection (Water Quality) Regulations, 2000**.

- 6.1 Untreated discharge of effluent from the Project into the surrounding environment is **Strictly Prohibited**.
- 6.2 Exploration and Production wastes shall be stored at least **5m** away from any drains on site.
- 6.3 Effluent from the treatment process shall be directed to a sump for additional mechanically or chemical treatment prior to final discharge.
- 6.4 Effluent discharge from the sump shall be in accordance with the Guyana National Bureau of Standards (GNBS) *Interim Guidelines for Industrial Effluent Discharge into the Environment*. The following allowable limits shall not be exceeded:

Parameter	Daily Maximum Concentration	Units	Sample type	Frequency of Analysis
pH	(pH 5.0-9.0)		Grab	Quarterly
Total Suspended Solids (TSS)	< 100	mg/L	Composite	
Total Petroleum Hydrocarbon (TPH)	< 40	mg/L	Composite	
Biological Oxygen Demand (BOD)	<50	mg/L	Composite	
Chemical Oxygen Demand (COD)	<250	mg/L	Composite	
Metal (Zinc)	<non-detect		Grab	

6.5 Samples of effluent shall be collected for analysis from the final discharge point of the sump.

6.6 The following information from collected samples shall be recorded and submitted to the EPA within **thirty (30) days** after the analysis was completed for each sampling done in accordance with this Permit:

- i. The exact place, date and time of sampling;
- ii. The person(s) who performed the sampling;
- iii. The results of all the analyses;
- iv. Copies of original laboratory analytical reports

6.7 Effluent from the decontamination of transport vessels shall be directed to the Treatment Plant for treatment prior to discharge.

7.0 NOISE QUALITY MANAGEMENT

Adhere to the provisions of the **Environmental Protection (Noise Management) Regulations, 2000.**

7.1 Noise emissions shall be monitored at the Project's boundary biannually to determine compliance with Guyana National Bureau of Standards (GNBS)

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Guidelines for Noise Emissions into the Environment, not exceeding the commercial limits listed below:

Industrial Limits: **100 dB** (Day-time (06:00 h -18:00 h))
 80 dB (Night- time (18:00 h - 06:00 h))

- 7.2 Measurement shall be done with a calibrated Type 2 Noise Meter, at least 3.5 metres from any reflecting surface and 1.5 above ground. Records of each monitoring exercise shall be maintained and results submitted to the Agency as a component of the project's **Annual Report**.
- 7.3 All machines and equipment shall be serviced in accordance with manufacturer's specification to ensure efficiency and reduce the level of noise produced. A summarised maintenance report shall be submitted to the Agency as a component of the **Annual Report**.

8.0 WASTE MANAGEMENT

- 8.1 In accordance with the **Environmental Protection (Litter Enforcement) Regulations, 2013**, promote good sanitation and solid waste disposal practices on site. Covered garbage receptacles shall be placed upon impervious base at strategic locations, both within and outside facility.
- 8.2 Non-hazardous solid waste shall not be burnt on site. All solid waste shall be disposed at an approved Solid Waste Disposal Site, by an EPA Authorised Waste Disposal Company.
- 8.3 Good house-keeping, sanitary, and hygienic practices shall be maintained at all times. The facility's drains and surroundings shall be kept free of vegetation and litter.
- 8.4 Solid waste receptacles shall be secured when not in use.
- 8.5 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).

9.0 ENVIRONMENTAL EMERGENCY RESPONSE MANAGEMENT

- 9.1 The Project shall be equipped with the following:
- i. An internal communications or alarm system capable of providing immediate emergency instruction to facility personnel.
 - ii. Portable fire extinguishers, fire control equipment (including special extinguishing equipment, such as that using foam, inert gas, or dry chemicals), spill control equipment, and decontamination equipment.

- iii. Water at adequate volume and pressure to supply water hose streams, foam producing equipment, automatic sprinklers, or water spray systems.
- 9.2 Standard Operating Procedures (SOPS) shall be maintained for inspecting and maintaining safety and emergency equipment, security devices, and operating and structural equipment that are important to preventing, detecting, or responding to environmental or human health hazards.
- 9.3 Aisle space must be maintained at the Project to allow the unobstructed movement of personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of facility operation in an emergency.
- 9.4 A Contingency Procedure/Plan shall be established and maintained for the Project. The Procedure shall include, but not be limited to:
 - i. Procedures to be followed in the event of Plant malfunction.
 - ii. The actions facility personnel must take to respond to fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water at the facility.
 - iii. Systems for notification of national and local emergency response authorities
 - iv. The names and contact information of all persons qualified to act as emergency coordinators.
 - v. A list of all emergency equipment at the facility (such as fire extinguishing systems, spill control equipment, communications and alarm systems (internal and external), and decontamination equipment), where this equipment is required.
 - vi. An evacuation plan for facility personnel where there is a possibility that evacuation could be necessary. This plan must describe signal(s) to be used to begin evacuation, evacuation routes, and alternate evacuation routes (in cases where the primary routes could be blocked by releases of hazardous waste or fires).
- 9.5 All employees shall be trained on the Contingency Plan outlined in condition 9.4.

10.0 COMPLIANCE MONITORING AND REPORTING

- 10.1 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).

- 10.2 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**.
- 10.3 Monitor the implementation of the conditions of this Permit, insofar as they involve adherence by your employees.
- 10.4 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.
- 10.5 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.
- 10.6 Maintain and submit to the Agency records of the type, composition and quantity of contaminant released (i.e. any solid, liquid, gas, odour, sound, vibration, radiation, heat or combination of any of them).
- 10.7 Submit an **Annual Report** to the EPA on the progress of the operation and compliance with the conditions under which this Permit was granted on or before **March 31, each year**.
- 10.8 Report to the Agency any non-compliance(s) with the Operation Permit:
 - i. Within **twenty-four (24) hours** of the time the Holder of the Environmental Authorisation for Operation becomes aware of the non-compliance, the anticipated manner in which it may endanger human health or the environment.
 - ii. Within **seventy-two (72) hours**, submit to the Agency a written report containing a description of the non-compliance, its cause and the period of non-compliance including exact dates and time.
 - iii. Submit a report to the Agency indicating the reasons and the anticipated time it is expected to continue if the non-compliance has not been corrected.
- 10.9 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.
- 10.10 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.

11.0 INSTITUTIONAL AUTHORITY/ LIABILITIES

- 11.1 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, the Environmental Protection (Amendment) Act, 2005, and the Environmental Protection Regulations, 2000.
- 11.2 The EPA reserves the right to review/amend the conditions attached to this Permit which also includes the review and/or amendment of permit fees in consideration of any changes in fee schedule as determined by the Agency for projects of this nature.
- 11.3 The Permit Holder **may** be provided notice, at least **twenty-four (24) hours prior**, to facilitate the entry of any Officer designated by the EPA to the facility for the purposes of conducting inspections or any other legitimate business of the Agency.
- 11.3.1 Nothing contained herein shall be interpreted to mean that the EPA rescinds its authority to maintain unfettered access to the facility for the purpose of ensuring that the authorised activities do not cause pollution of the environment or harm to human health or for ensuring compliance with the conditions of this environmental authorisation, as provided by the Environmental Protection Act and Regulations.
- 11.3.2 Further, pursuant to s.38 of the Environmental Protection Act, Cap. 20:05, Laws of Guyana, it is an offence to assault, obstruct or hinder an authorised person in the execution of his/her duty under the said Act or its Regulations and the Permit Holder shall be liable to penalties prescribed under paragraph (c) of the Fifth Schedule for doing so.
- 11.4 The EPA shall have the right to cancel or suspend this Permit for breach of any of the terms and conditions contained herein.
- 11.5 The Permit Holder, his Servants and/or Agents shall be strictly jointly and severally liable as follows:
- a. For any activity that causes, or is likely to cause pollution of the environment, unless the person takes all reasonable and practicable measures to prevent or minimise any resulting adverse effect, in accordance with Section 19(1)(a) of the Environmental Protection Act, Cap. 20:05, Laws of Guyana.
- b. For any activity which results in the discharge, release or entry into the environment of any contaminant in any amount, concentration or level in excess of that prescribed by the regulations or stipulated by this Permit, in accordance with Section 19(1)(b) of the Environmental Protection Act, Cap. 20:05 Laws of Guyana.

- c. The discharge or release of contaminants, such as hydraulic fluids, lubricants, fuel, or other industrial fluids relative to the Project, which are not stipulated herein, or by Regulations under the Environmental Protection Act, are strictly prohibited. Any such discharge or release shall be a violation of Section 19(1)(b) of the Environmental Protection Act.
 - d. For the compensation of any Party who suffers any loss or damage as a result of the project. (s.19(3)(e)) Environmental Protection Act, Cap. 20:05, Laws of Guyana.
 - e. For any material or serious environmental harm caused by pollution of the environment, whether intentionally or recklessly, in accordance with section 39 (1), (2), (3) and (4) of the Environmental Protection Act, 20:05, Laws of Guyana.
 - f. Any gross negligence or wilful misconduct resulting in serious risk, or adverse effects to the marine environment, biodiversity, protected species and natural habitat with respect to any release or discharge, spill, contaminant fluids, oil, or lubricants from any facilities permitted under this project.
 - g. For the payment of all costs and expenses related to the assessment of damage and investigations required, as result of any pollution incidents attributable to the activity for which this Permit has been issued.
- 11.6 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's lack of due care and diligence.
- 11.7 Should the Permit Holder contravene or is likely to contravene any condition of this Permit, the Agency (EPA) may serve him an enforcement notice in accordance with s. 26 of the Environmental Protection Act, Cap. 20:05, Laws of Guyana.
- 11.8 Where it appears to the Agency that the Permit Holder is engaged in any activity that may pose serious threat to natural resources or serious pollution of the Environment or any damage to public health, issue to the Permit Holder a Prohibition Notice, which may include an order to immediately cease the offending activity. See: s. 27 of the Environmental Protection Act, Cap. 20:05, Laws of Guyana.
- 11.9 This Operation Permit is effective for the period stipulated herein; **August 2021 to July, 2026.**


- 11.10 This Operation Permit shall remain valid until **July 31, 2026**, unless otherwise suspended, cancelled, modified or varied, in accordance with the provisions of this Permit or the Environmental Protection Act, Cap. 20:05, Laws of Guyana, Environmental Protection (Amendment) Act, 2005, and the Environmental Protection (Authorisations) Regulations, 2000.
- 11.11 This Permit must be renewed by submitting a completed Renewed Application Form for Environmental Authorisation (Operation Permit) to the Agency at least six months before this Permit expires, that is, no later than **January 31, 2026**.
- 11.12 Any late submission of renewal application (s) after the specified date as stated above, the Agency may require the Permit Holder to pay, in addition to renewal fee, a late penalty fee (accruing at the time such obligation was first owed for renewal) at a rate of **two thousand dollars (GY\$2000.00) per day for every business day late, until such renewal application is submitted to the Agency**, without prejudice to any other rights of the Permit Holder in connection therewith.
- 11.13 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.

Signed by _____ on behalf of the Environmental Protection Agency.



Date 27 July 2021

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

NAME	TERRY SINGH
DATE	28/07/2021
SIGNATURE	
DESIGNATION	Director

