Environmental Protection Agency

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Environmental Permit

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

Reference No.:	**20181204-PPOIX**
Fees:	**Extra Large (C1) – US $ 15,500 (5 years) i.e.US $3100 per year**
Fees Paid:	**USD $15,500 (September 24, 2020 – September 23, 2025)**

Addressee(s): **Mr. Alistair Routledge**
President
Esso Exploration and Production Guyana Limited
86 Duke Street
Kingston
Georgetown
Guyana.

Activity: **Payara Development Project**
Stabroek Block, Offshore, Guyana

Esso Exploration and Production Guyana Limited (EEPGL), hereinafter referred to as the "Permit Holder", is hereby authorised by the Environmental Protection Agency (EPA), hereinafter referred to as the Agency, in accordance with the Environmental Protection Act, Cap 20:05, Laws of Guyana, the Environmental Protection (Amendment) Act, 2005, and the Environmental Protection Regulations, 2000, to undertake the Payara Development Project, hereinafter referred to as the "Project", which includes but is not limited to, drilling of subsea development wells, installation and operation of subsea equipment, use of a Floating Production, Storage, and Offloading (FPSO) vessel to process, store, and offload the recovered crude oil during production operations, as well as the

use of shorebase facilities and marine/aviation services in support of these activities in the manner indicated in the Application submitted on December 04, 2018, the Environmental Impact Assessment submitted on July 22, 2020, and the Environmental and Socioeconomic Management Plan submitted on July 22, 2020, which includes the Revised Oil Spill Response Plan submitted on July 22, 2020, and Wildlife Response Plan, all of which may be updated from time to time, and are subject to the terms and conditions set forth herein and any existing or forthcoming regulations, best practices, guidelines and standards relevant to this project.

The Permit Holder Shall:

1.0 GENERAL

1.1 Comply with any directions of the Agency where compliance with such directions is necessary for the implementation of any obligations of Guyana under any treaty or international law related to environmental protection.

1.2 Ensure onshore and offshore contractors contracted by the Permit Holder are duly authorised by the Agency to conduct any activities relative to any phases associated with the project.

1.3 Restore or rehabilitate the environment to an acceptable state after any impacts resulting from any breach of the conditions of this Permit.

1.4 Comply with the approved Payara Environmental Impact Assessment, Environmental and Socioeconomic Management Plan and Oil Spill Response Plan.

1.5 Comply with any forthcoming guidelines, standards, best practices and the National Oil Spill Contingency Plan.

1.6 The Permit Holder shall submit **within one (1) year** of issuance of this Permit an updated Payara Environmental and Socioeconomic Monitoring Plan, including protocols, performance standards, and responsibilities in Consultation with and jointly implemented by the Permit Holder and the Agency. Capacity (e.g. training) within the EPA shall be supported by the Permit Holder where necessary and practicable. External expertise (local and international) may be sourced by the EPA as may be required to augment this monitoring plan and/or conduct associated audits. The Permit Holder will be responsible for all reasonable and jointly agreed upon costs associated with this monitoring plan and its implementation, and any associated independent audits.

1.7 The Permit Holder shall notify the Agency in writing and obtain its approval for **ANY** proposed changes to the operation at least **21 calendar days** prior to making the change.

1.7.1 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, or any additional installation, which may have consequences for the environment. Changes to operation may include but not limited to the following:

i. Changes in vessels, equipment, or technology;
ii. Installation of new and/or changes (excluding routine maintenance) to equipment, machine, apparatus, mechanism, system or technology serving the facility or operation;
iii. Any change of technology used or installed at the facility from which effluent may be discharged or any changes in the nature, composition, concentration or quantity of the discharge; or
iv. Any other variance prescribed by Regulation 20(3) of the Environmental Authorisations Regulations, 2000

1.8 Comply with all applicable laws and regulations, including but not limited to the following:

a. Environmental Protection Act, Cap 20:05, Laws of Guyana and associated Regulations;
b. Petroleum Exploration and Production Act, 1986;
c. Petroleum Exploration and Production (Amendment) Act, 1992;
d. Pesticides and Toxic Chemicals Act, No. 13 of 2000;
e. Pesticides and Toxic Chemicals Regulations, No. 8 of 2004;
f. Pesticides and Toxic Chemicals (Amendment) Regulations, No.8 of 2007;
g. All applicable policies, laws and regulations of Guyana; and
h. International conventions and protocols

1.9 The best available techniques and technologies which consider economic and technical feasibility, as well as the facilities and controls described in the EIA, shall be used to prevent or mitigate pollution in relation to any aspect of the operation, which is not regulated by any other condition of this Permit.

1.10 The Permit Holder shall use an effective Environmental Management System with policies and procedures for environmental compliance and improvements, and shall perform internal audits on at least an annual basis. The Permit Holder shall share the results of the internal audits with the Agency. The Agency at its discretion may require other independent environmental audits, in accordance with applicable International Conventions and Protocols during the course of this Permit.

1.11 Employ effective operational and maintenance systems on all aspects of the facility whose failure could impact the environment. A schedule of maintenance of all vessels, equipment, and/or plant shall be kept on site and made available for inspection on request by the Agency. Maintenance shall be carried out in accordance with the relevant manufacturer's specification.

1.12 Comply with the following Legislation/Guidelines/Conventions as indicated under 3.0 Administrative Framework as well as Section 6, 7, and 8 in the Environmental Impact Assessment, dated July, 2020, and under the following headings:

a. Environmental Protection Act, Cap.20:05, Laws of Guyana;
b. National Legal Framework;
c. Environmental Permits and Licenses;
d. Laws and regulations enacted by Guyana to implement the National Policy Framework;
e. International Conventions and Protocols; and
f. EEPGL's Operations Integrity Management System

2 NOISE MANAGEMENT

2.1 Where practicable, ensure that sound-making devices or equipment are equipped with silencers or mufflers and are enclosed, and/or utilise soft-start procedures (e.g., pile driving, vertical seismic profiling activities, etc.) to reduce noise to levels that do not cause material harm or injury to marine species.

2.2 Implement engineering controls, administrative controls and training to protect offshore workforce from high noise levels in offshore work environment.

3 AIR QUALITY MANAGEMENT

3.1 Annually quantify aggregate greenhouse gas (GHG) emissions as well as emissions from the use of fossil fuels, primarily natural gas and diesel, from all offshore facilities and offshore support activities which are directly owned or controlled by Permit Holder or its dedicated contractors and is directly or indirectly related to the Project. The information must be included in the annual report required under Condition 12.5, along with the methodology employed to calculate the emissions.

3.2 Ensure all reasonable attempts are made to implement appropriate methods for controlling and reducing fugitive emissions in the design, operation, and maintenance of offshore facilities and to maximize energy efficiency and design facilities for lowest energy use, with the overall objective to reduce air emissions. Environmentally-effective and technically feasible best practices for reducing emissions must be evaluated and adopted as far as practicable.

3.3 Utilize low sulphur fuels and/or natural gas on all vessels (including the FPSO), in turbines, reciprocating engines or boilers, used for heat or power generation or to drive machinery such as compressors or pumps.

3.4 Routine flaring and venting is strictly prohibited (excludes tank flashing emission, standing/working/breathing losses, low pressure streams) during any developmental drilling or production activities without EPA approval. Flaring is only permissible under the following conditions: Commissioning, Start-up, or Special Circumstances, as defined below:

i. **Commissioning** shall be defined as the process of ensuring that all systems and components are designed, installed, tested, operated, and maintained according to the operational requirements or manufacturer's specifications. This condition shall also apply to the commissioning of any new units or systems post-production, or the renovation of existing units or systems, which may require flaring. During commissioning, all gas systems, must be properly installed, fully leak tested and able to receive gas, before start-up.

ii. **Start-up** shall be defined as the activity that occurs at the end of commissioning where production operations are initiated. The Permit Holder shall not exceed **sixty (60) days** of flaring during Start-up unless approved by the EPA subject to Condition 3.15.

The Permit Holder shall notify the Agency of the expected flaring volumes expected during start-up and commissioning at least **six (6) months** before Start-up.

iii. **Special Circumstances:**

a. Emergencies:

i. Controlled - any unavoidable expected event, including inclement weather conditions, strictly requiring the flaring of gas; and

ii. Safety Response - any unplanned event requiring the flaring of gas for safety purposes or flaring required to maintain the flare system in a safe and ready condition (purge gas/make-up gas/fuel gas) and pilot flame.

b. Maintenance:

i. Planned/unplanned maintenance and inspections on gas handling system and related processes, and construction activities.

ii. Scheduled unloading or cleaning of a well or well work-over, well testing, production testing, other well-evaluation testing, or the necessary blow down to perform these procedures; and maintenance required during and after an emergency shutdown or restart.

c. Restart: the instance of resumption of oil production following a shutdown event.

3.4.1 Except where unplanned and required for safety, where any of the abovementioned Special Circumstances conditions is expected to exceed **forty-eight (48) cumulative hours**, the Permit Holder shall seek approval from the EPA for Flaring within the first forty-eight (48) hours of the commencement of flaring unless otherwise approved by the EPA.

3.5 Ensure associated gas brought to the surface with crude oil during oil production is re-injected into the reservoir, and utilized as fuel gas on the FPSO. However, all feasible alternatives for gas utilization must be evaluated and adequately documented to the EPA upon request.

3.6 Adopt risk assessment processes (e.g. hazard and operability study (HAZOP), hazard identifications study (HAZID), etc.) to assess risks associated with process upset and loss-of-containment events which could impact the environment.

3.7 Adopt measures as far as practicable, in accordance with the Global Gas Flaring and Venting Reduction (GGFVR) Partnership when considering venting and flaring options under emergency or upset conditions.

3.8 Notify the Agency within **twenty-four (24) hours** of all process upset events or unplanned maintenance occurrences which result in a flaring event on the FPSO.

3.9 The following conditions must be complied with when flaring from the FPSO is necessary in accordance with Condition 3.4:

3.9.1 Submit the following documents as soon as practical after seeking approval for flaring:

i. Description of conditions which includes but is not limited to commissioning schedule, start-up schedule, and/or maintenance schedule; where applicable;
ii. Detailed schedule for flaring;
iii. Justification(s) for required approval; and
iv. Daily projected flare volumes.

3.9.2 Employ a metering system with an accuracy of **plus or minus five (5) percent** to determine the quantity of gas to the flare system.

3.9.3 Calibrate and maintain flare metering system in accordance with the manufacturer's recommendations. The calibration certificate must be submitted to the EPA upon completion of calibration.

3.9.4 Maintain a consolidated record of all flaring events, regardless of size and duration, including begin times, end times and volumes, and meter calibration and maintenance records, for six (6) years. The records must be kept on the FPSO for two (2) years and be available for inspection by the EPA upon request thereafter.

3.9.5 Ensure flare equipment and gas handling system(s) are inspected and correctly installed, function tested and monitored, maintained according to manufacturer's specifications, and certified for use under operation conditions prior to oil production and throughout operations.

3.9.6 Ensure flaring stack is installed a safe distance from storage tanks containing flammable liquids or vapours and accommodation units.

3.9.7 Ensure that flare equipment, gas handling system(s) and all combustion equipment is designed and built to appropriate engineering codes and certified standards. Flaring system must only be operated within manufacturer's recommended specifications.

3.9.8 Use efficient flare tips and optimize the size and number of burning nozzles.

3.9.9 Ensure use of a reliable pilot ignition system. The burner must have a continuously burning pilot system or other automatic ignition system that ensures that it is lit and gives the operator immediate warning if it fails to operate.

3.9.10 Minimize risk of pilot flare blowout by ensuring sufficient exit velocity and providing wind guards. Determine the minimum exit velocity required to avoid pilot flare blowout and submit information to the EPA one hundred and eighty (180) days before planned Start-up.

3.9.11 Install high-integrity instrument pressure protection systems to reduce overpressure events and avoid or reduce flaring situations.

3.9.12 Operate flaring to control odour and smoke emissions, where practicable.

3.9.13 Ensure the volumes of hydrocarbons flared are recorded and submitted to the Agency in a monthly report as required by Condition 12.20 and the estimated quantity of specific pollutants emitted from flaring including but not limited to carbon dioxide (CO2), carbon dioxide equivalent (CO2-e), nitrogen oxides (NOx), sulfur oxides (SOx), carbon monoxide (CO), particulate matter, hydrogen sulfide (H2S), volatile organic compounds (VOCs); methane and ethane; benzene, ethyl benzene, toluene, and xylenes (BTEX); glycols, and polycyclic aromatic hydrocarbons (PAHs), must also be reported. The report must include methodology used to determine the concentration of each pollutant.

3.9.14 Implement burner maintenance and replacement programs in accordance with manufacturer's recommendations to ensure continuous maximum flare efficiency.

3.9.15 Maximize flare combustion efficiency by controlling and optimizing flare fuel, air, and stream flow rates to ensure the optimum ratio of assist stream to flare stream. Determine the optimum ratio of assist stream to flare stream.

3.9.16 Minimize liquid carryover and entrainment in the gas flare stream with a suitable liquid separation system, with sufficient holding capacity for liquids that may accumulate and which must be designed in accordance with good engineering practice.

3.10 Employ all reasonable efforts to prevent equipment breakdowns and plant upsets which could result in flaring and provisions must be made for equipment sparing and plant turn-down protocols. All equipment relating to the gas handling, water handling and oil handling systems on the FPSO must be supplemented in accordance with the reliability study outcomes under Condition 3.16 which includes evaluation of equipment sparing, to be stored at a shorebase facility in Guyana or on the FPSO. Equipment spares must be located in Guyana before the Start-up and shall be maintained in accordance with Condition 1.11.

3.11 Ensure there is no use of chlorofluorocarbons (CFCs) and polychlorinated biphenyls (PCBs) on the FPSO; except as may be authorised by the Agency.

3.12 Monitor exhausts daily for smoke and particulates; in instances of visible smoke, the cause(s) must be investigated and resolved.

3.13 Ensure there is no discharge of ozone-depleting substances (ODS) in accordance with the International Convention for the Prevention of Pollution from Ships (MARPOL) Annex VI.

3.14 If well testing must be performed, the following measures must be implemented:

i. During well testing, only the minimum volume of hydrocarbons required for the test must be flowed and well-test durations must be reduced to the extent practical. An efficient test flare burner head equipped with an appropriate combustion enhancement system must be selected to minimize incomplete combustion, black smoke, and hydrocarbon fallout to the sea.

ii. Volumes of hydrocarbons flared must be recorded and reported in the End of Well report as required by Condition 12.9. The estimated quantity of specific pollutants emitted from flaring including but not limited to carbon dioxide (CO2), carbon dioxide equivalent (CO2-e), nitrogen oxides (NOx), sulfur oxides (SOx), carbon monoxide (CO), particulate matter, hydrogen sulfide (H2S), volatile organic compounds (VOCs); methane and ethane; benzene, ethyl benzene, toluene, and xylenes (BTEX); glycols, and polycyclic aromatic hydrocarbons (PAHs), must also be reported. The report must include methodology used to determine the concentration of each pollutant.

iii. Provide adequate gas sensors that are to be appropriately located during testing operations, to ensure all sources of gas can be detected.

iv. Ensure all pipes and joints are regularly monitored for leakages and fugitive emissions. Additionally, all collected gaseous streams must be burned in high efficiency flare(s), and leak detection and repair programs must be implemented and maintained.

v. Ensure the well test is kept to the minimum practical time, in keeping with pre-approved schedule between the Agency and Permit Holder. Also, notify the Agency immediately in case of any deviation/variation to the well test.

3.15 Approval for flaring shall not be issued for a period exceeding **two (2) months**; noting where flaring exceeds, or is expected to exceed, the two month period, the Agency may approve continued flaring on a monthly basis after taking into account the study and report set out in Condition 3.16 below or as the Agency may see fit.

3.16 The Permit Holder shall conduct a study of minimum feasible volumes and/or durations for flaring associated with Start-up, production restart, emergencies, special testing, planned/unplanned shutdown, flare pilot maintenance and planned/unplanned maintenance. The study will also consider equipment reliability and include an evaluation of spare pieces of equipment related to gas handling. Utilising such study the EPA and Permit Holder will meet and mutually agree to necessary amendment to Condition 3.4 to incorporate such study results. The Permit Holder shall submit to the EPA terms of reference for the study three (3) months before planned start-up and commissioning of the gas injection system.

3.17 In accordance with the Polluter Pays Principle enshrined in the EP Act, Cap 20:05, within three (3) months of issuance of the Permit a fine framework shall be established by the EPA for flaring volumes beyond the permitted period referenced in Condition 3.4 taking into account international standards and norms applied to the Oil and Gas Industry. Applicability and institution of the fines shall be determined by the Agency.

4.0 WATER QUALITY MANAGEMENT

4.1 Marine discharges from well drilling, hydrostatic testing of flow lines and risers, and the overall production operations shall be undertaken in a manner that does not cause or permit the entry of contaminants into the environment in amounts, concentrations or levels in excess of that prescribed by the regulations or stipulated by any environmental authorisation.

4.2 Notify the Agency in writing of any change in the type of drilling fluid used, disposal/recycle/treatment method outlined.

4.3 Submit upon receipt, a copy of the FPSOs International Sewage Pollution Prevention Certificate along with a copy of the Certificate of Type Approval for Sewage Treatment Plants and associated appendices.

4.4 Discharges of pollutants/contaminants in coastal waters (i.e., twelve (12) nautical miles) in amounts, concentrations or levels in excess of that prescribed by the regulations or stipulated by any environmental authorisation are prohibited.

4.5 Visually check and take appropriate measures to mitigate occurrence of free oil resulting from discharge of NADF drill cuttings.

4.6 Maintain an inventory of all drilling fluid constituents added downhole for each well.

4.7 Produced water from the reservoir shall be treated onboard the FPSO to an acceptable specification prior to discharging. The oil content specification of produced water to be discharged shall not exceed 42 mg/L on a daily basis or 29 mg/L on a monthly average. If the oil content of produced water is observed to exceed these limits, the produced water shall be routed to an appropriate storage tank on the FPSO until further treatment system is restored, and the discharge meets the specification above.

4.8 Monthly reports shall be submitted to the EPA to demonstrate compliance with the limits set out in condition 4.7.

4.9 The Agency reserves the continuous and irrevocable right to order the sampling and analysis of any discharges, effluent or waste emanating from the Project, to be analysed by an independent certified laboratory or institution, approved by the Agency, at the expense of the Permit Holder.

4.10 The Permit Holder shall complete a study to investigate and determine the feasibility, benefits/implications and cost of re-injecting one hundred (100) percent of produced water and shall be guided by the principles set forth in conditions 4.10.1 – 4.10.6.

4.10.1 Within thirty (30) days of the date of Permit, the Permit Holder shall submit to the EPA for approval, terms of reference for the conduct of a study detailing the feasibility of re-injecting produced water in lieu of routine discharge to the ocean, including implementation for future installation of facilities for produced water injection, and an evaluation of any potential risks to the reservoir from injection, a full cost benefit analysis, and Permit Holder's recommendations.

4.10.2 Within 180 days of the date of the EPA's approval of the terms of reference, the Permit Holder shall complete the study's final reports. The study shall be conducted by an independent consultant/contractor approved by the Agency, not to be unreasonably withheld.

4.10.3 During the conduct of the aforementioned study the Permit Holder shall meet with the EPA upon request, to provide any updates on the progress of the study, discuss the issues raised by the study, and come to an agreement on resolution of issues and/or concerns regarding the study.

4.10.4 Thirty (30) days before completion of the study, the Permit Holder will issue a draft report to enable the EPA to provide inputs into the final report. The final report shall not be deemed final until approved by the EPA.

4.10.5 Upon issuance of the Permit, the Permit Holder shall update its base design for the Project to include (i) tie in points and (ii) space for potential produced water injection equipment.

4.10.6 Condition 4.7 may be amended by the Agency in consideration the aforementioned approved study and the conclusions of the EPA, the

Permit Holder and the Minister of Natural Resources, the Minister Responsible for Petroleum.

4.11 The use of fluids that contain diesel as the principal component of the drilling mud liquid phase is prohibited.

4.12 For well sections requiring non-aqueous drill fluid (NADF), use only low-toxicity International Oil and Gas Producers (IOGP) Group 3 base fluid.

4.13 Use solids control and cuttings dryer systems to treat cuttings so that the end of well maximum weighted mass ratio averaged over well sections drilled using IOGP Group 3 non-aqueous fluids (polycyclic aromatic hydrocarbons <0.001% by weight and total aromatic content <0.5% by weight) not exceeding 6.9 grams of non-aqueous based fluids per 100 grams of wet drill cuttings. The end of well maximum weighted mass ratio averaged over all well sections drilled using non-aqueous fluids shall be determined using an internationally recognised and EPA approved method and the results must be submitted in the End of Well Report.

4.14 Antifouling chemical dosing to prevent marine fouling of offshore facility cooling water systems shall be carefully considered. Available alternatives should be evaluated and, where practical, the seawater intake depth should be optimised to reduce the need for use of chemicals. Appropriate screens should be fitted to the seawater intake, if safe and practical, to avoid entrainment and impingement of marine flora and fauna.

4.15 The cooling water discharge should be designed to ensure that the temperature is within 3°C of ambient seawater temperature at 100 meters.

4.16 Monitor temperature of FPSO cooling water discharges to ensure a temperature rise of no more than 3°C above ambient water temperatures at 100 m.

4.17 Abide with the International Maritime Organization (IMO) Guidelines including the International Convention for the Control and Management of Ship's Ballast Water and Sediments (2004), with the exception of Regulation D-2 (Ballast Water Performance Standard) while the FPSO is on station, and abide with the International Convention for the Prevention of Pollution from Ships (MARPOL).

4.18 Adhere to operational controls regarding material storage, wash-downs and drainage systems.

4.19 Treat bilge water in accordance with MARPOL to ensure compliance with an oil in water content of <15 ppm as applicable.

4.20 Ensure there is no visible oil sheen from commissioning-related discharges (i.e., flowlines/risers commissioning fluids, including hydrotesting waters) or FPSO cooling water discharge.

4.21 Prohibit the discharge of drilling fluids, which contain used/waste engine oil, cooling oil, gear oil or lubricant, and which has previously been used for purposes other than borehole lubrication.

4.22 Prohibit the discharge of cuttings generated using drilling fluids, which contain conventional mineral oil (IOGP Group 1), except when the mineral oil is used as a carrier fluid (transporter fluid), lubricity additive, or pill.

4.23 Discharge of diesel oil, halogenated phenol compounds, or chrome lignosulfonate is prohibited.

4.24 Wastewater that is released from the onboard Sewage Treatment Plant, when sampled three times or more over 24 hours, shall comply with the aquatic discharge standards in accordance with MARPOL 73/78 regulations.

4.25 Macerate food waste in accordance with MARPOL prior to discharge.

4.26 Measure residual chlorine concentration of treated sewage discharges on FPSO monthly to ensure that it is below 0.5mg/L in accordance with MARPOL 73/78 regulations; keep log of results and submit in the quarterly compliance report.

4.27 Safety management system on board shall include steps for regular checks and maintenance of the sewage plant check pipes, storage tanks, and other equipment as per manufacturer's instructions; checks and maintenance of the sewage plant and other equipment should be logged and documented for the annual compliance report.

4.28 Inform the Agency in the event that wastewater from the sewage treatment plant is diverted to the oily/bilge water separator providing the reasons for this occurrence, its duration, the quantity diverted and actions taken to resolve the issue should be provided. Further, any discharge from the oily/bilge separator in this occurrence should be in accordance with Annex IV of MARPOL.

4.29 Perform daily visual inspections on the FPSO of discharge points to ensure that there are no floating solids or discolouration of the surrounding waters and document observations provide same in the quarterly compliance report.

4.30 Ensure that leak detection mechanisms are in place for those equipment, treatment and storage facilities (fuel, chemical, etc.) on the drillship in accordance with international offshore petroleum industry standards.

4.31 Utilize leak detection controls during FPSO offloading (e.g., for breach of floating hose, instrumentation / procedures to perform volumetric checks).

4.32 Utilize leak detection controls during installation and operation of SURF equipment (e.g., pigging and pressure testing of lines, periodic ROV surveys of subsea trees, manifolds, flowlines and risers).

5.0 HAZARDOUS AND NON-HAZARDOUS WASTE & MATERIALS MANAGEMENT

5.1 Adhere to the provisions of the Environmental Protection (Hazardous Waste Management) Regulations, 2000.

5.2 Ensure effective management of waste and recoverable materials generated by the project in accordance with internationally acceptable standards and the Environmental Protection Act, Cap. 20:05, Laws of Guyana.

5.3 Dispose of all wastes in accordance with the Waste Management Plan and individual vessel Garbage Management Plans.

5.4 Waste management companies contracted by the Permit Holder to manage waste which includes collection transportation, storage, treatment and disposal shall be authorized by the Agency.

5.5 Maintain a high level of housekeeping, sanitary and hygienic practices, and environmental standards of all facilities, vessels and associated structures at all times.

5.6 Operate incinerators in accordance with the Manufacturer's Operating Manuals and Waste Management Plan. Ensure that the incinerators are operated only by trained personnel.

5.7 Perform periodic inspections of the FPSO's waste storage areas and containers and maintain an inspection log.

5.8 Maintain an inventory of wastes stored aboard the FPSO and Drill Ship.

5.9 Maintain a record of hazardous materials used in operation and submit in the Annual Report a summary table with the following information:

(a) Name and description;
(b) Classification e.g. code or class;
(c) Quantity used per month;
(d) Characteristic(s) that make(s) the material (s) hazardous e.g. flammability, toxicity.

5.10 Maintain copies of waste manifests and chain of custody forms.

5.11 Transport of hazardous waste offsite for treatment and/or disposal MUST be accompanied by a manifest signed by the hazardous waste generator and transporter; the manifest must be provided within the Annual Report, as well as, submitted to the Agency electronically and should include the name and address of waste generator; name and description of the waste and hazard class; number and type of containers; quantity transported and name and address of receiving facility.

5.12 Periodically audit waste contractors to verify appropriate waste management practices are being utilized.

5.13 Utilise low toxicity chemicals/materials where practical. Each chemical/material should be managed in accordance with the associated Safety Data Sheet.

5.14 Implement best practices outlined in the IFC Environmental, Health and Safety (EHS) General Introduction Guidelines and Offshore Oil and Gas Development Guidelines with respect to the prevention of spills of hazardous materials from offshore facilities during chemical transfers and loading activities.

5.15 Radioactive sources will be returned to their supplier and radioactive wastes will be sent, according to the Waste Management Plan, to a facility permitted to manage such wastes.

5.16 The Agency considers all materials listed in Schedules I and II of the Environmental Protection (Hazardous Waste Management) Regulations, 2000, to be hazardous. Please see attached list of Hazardous Wastes to be controlled.

5.17 Fuel, oils and chemicals shall be appropriately secured and contained in accordance with their Material Safety Data Sheet.

5.18 Submit the types and quantities of chemicals stored in offshore facilities as part of reporting requirements stipulated in Condition 12.5 of this Permit.

5.19 Spent oils, lubes and chemicals that cannot practically and safely be recycled through the FPSO process will be sent to shore for disposal in a manner approved by the EPA. Disposal of used/waste oils and chemicals in the marine environment or in any waterways is prohibited, as well as, disposal onshore if untreated.

5.20 During the lifetime of the Project, the Permit Holder shall be responsible for stewarding and auditing the activities of all downstream subcontractors handling Project waste streams, and shall contractually require them to conduct all treatment and disposal of such waste streams in keeping with the EPA approved Waste Management Plan included within the Project EIA.

5.21 Within thirty (30) days of issuance of the Permit, the Permit Holder shall submit to the EPA for approval the Terms of Reference for the conduct of a "cradle to grave" waste analysis study, which must include factors related to i) environment, ii) management, iii) auditing, iv) schedule and v) cost/benefits. The "cradle to grave" waste analysis study must be submitted to the EPA for approval within sixty (60) days of the EPA's approval of the Terms of Reference.

5.22 The approved "cradle to grave" waste analysis study must form part of the revised Waste Management Plan which shall be submitted within one (1) month of submission of the "cradle to grave" waste analysis approved study.

5.23 The Revised Waste Management Plan referenced in condition 5.22 shall be implemented during the lifetime of the project.

6.0 SEISMIC-RELATED ACTIVITIES

6.1 Notify the Agency in writing of the intent to commence seismic-related activities (e.g., Vertical Seismic Profiling (VSP), site investigations or monitoring surveys) in the Payara Area of Interest at least **thirty (30) days** in advance of commencing activities.

6.2 Employ trained Marine Mammal Observers (MMOs) during the conduct of seismic-related activities (e.g., at least one trained MMO for VSPs or at least two trained MMOs for other seismic surveys requiring more than 12 continuous hours of observation per day).

6.3 Conduct a continuous observation of a mitigation zone (500 metres around a sound source) to verify whether it is clear of marine mammals and marine turtles before commencing sound producing seismic operations.

6.4 Sound producing seismic operations (including soft starts) shall not commence if marine mammals or turtles are sighted within the mitigation zone during the 30 minutes prior to commencing sound producing operations in water depths less than 200 metres, or 60 minutes prior to commencing sound producing operations in water depths greater than 200 metres.

6.5 Adhere to the Joint Nature Conservation Committee (JNCC) Guidelines (2017) during the conduct of seismic-related activities.

6.6 Record all marine mammals, protected species, and marine turtle observations and respective mitigation actions (e.g., delay of soft start) in a standardized report format and submit a copy of the report to the Agency within **forty-five (45) days** of the activity completion. The report should contain at minimum the following:

i. The location, date and start time of the activity;
ii. Name, qualification and experience of MMOs involved in the survey;
iii. The location, time and reasons when observations were hampered by poor visibility or high winds;
iv. The location and time when any start-up delays, power downs or stop work procedures were initiated due to marine mammal, protected species and marine turtle sightings;
v. The location, date, time and distance of any marine mammal, protected species and marine turtle sighting including species where possible and whether the sound source was active at the time of sighting; and

vi. The date and time when the activity was completed.

7.0 FPSO / DRILL SHIP / INSTALLATION AND SUPPORT VESSELS

7.1 Vessels shall travel no faster than idle or 'no wake' speed within 300 metres of observed marine mammals and sea turtles, and not approach the animals closer than 100 metres.

7.2 Lighting on the vessels shall adhere to maritime safety regulations/standards.

7.3 Where practicable, direct lighting on FPSO and major vessels to required operational areas rather than at the sea surface or skyward.

7.4 Procedures for loading, storage, processing, and offloading operations, either for consumables (i.e., fuel, drilling fluids, and additives) or for liquid products, should be utilized to minimise spill risks. Pumps, hoses, and valves should be inspected and maintained on a monthly basis.

7.5 FPSO may be subject to inspection and certification by an appropriate national or international body, in accordance with International Maritime Organization (IMO) requirements. Double hull vessels are preferred, whenever available.

7.6 Offloading activities shall be supervised by the designated Mooring Master, according to the conditions of the sea.

7.7 The conditions and characteristics of the export tankers should be assessed by the Mooring Master and reported to the Offshore Field Manager prior to commencing offloading operations; only properly registered and well-maintained double-hull vessels should be utilized.

7.8 In accordance with MARPOL 73/78 requirements, maintain an Oil Record Book to document the manner in which sludge, oil, bilge water, waste oil, etc., are disposed.

7.9 In accordance with MARPOL requirements, maintain a Garbage Management Plan and Garbage Record Book to record the manner in which waste (e.g., sewage, macerated food waste, etc.) are managed and disposed. The Garbage Management Plan shall include all information as per MARPOL specification (waste type, quantity stored on-board, waste delivered ashore, amount of waste generated, and waste discharged at sea in accordance with MARPOL Requirements).

7.10 Equipment on board (engines, compressors, generators, sewage treatment plant and oil-water separators) shall be inspected and maintained in accordance with manufacturer's guidelines, in order to maximise efficiency and minimise malfunctions, and unnecessary discharges into the environment.

8.0 WELL BLOWOUT PREVENTION (BOP)

8.1 Install a well BOP system that can be closed rapidly in the event of an uncontrolled influx of formation fluids and that allows the well to be circulated to safety by venting the gas at surface and routing oil so that it may be contained. The BOP system should be tested at installation and at regular intervals (at least every **14 days** or as operations allow).

8.2 The BOP system shall be pressure tested at installation, after the disconnection or repair of any pressure containment seal in the BOP system, and at least every **14 days** or as operations allow. Subsea BOP stack should be tested to the maximum anticipated wellhead pressure for the current well program. Annular preventers should not be tested to greater than 70% of the working pressure of the preventer.

8.3 Facility personnel shall conduct bi-weekly well-control drills, or as operations allow, which should be attended by key personnel. Well control training and drills shall be documented and made available to the Agency upon request.

8.4 BOP testing shall be conducted by the drill ship contractor.

8.5 The BOP system design, maintenance, and repair shall be undertaken in accordance with international standards. It is recommended that, at a minimum, subsea BOP systems consist of one annular preventer, two shear ram preventers one of which must be sealings, and two pipe ram preventers, and that they be equipped with choke and kill lines and failsafe choke and kill close valves.

8.6 The BOP must be able to close on the maximum OD drill pipe string used for the drilling operations. BOP systems shall operate (failsafe) in the event of a loss of control signal and hydraulic supply from the surface. At a minimum, subsea BOP systems should allow closure of one set of pipe rams and all blind-shearing type rams by Remotely Operated Vehicle (ROV) intervention, should automatic systems fail.

8.7 Contingency plans shall be prepared for well operations and must include identification of provisions for well capping in the event of uncontrolled blowout (providing indication of the tools, equipment, and intervention time required) and identification of spill recovery measures.

8.8 Prepare and submit an Emergency Plan for review by the Agency within one (1) year of issuance of this Permit, detailing the measures in place to prevent a blowout and the provisions for well-control in a blowout scenario (including capping tools and oil spill recovery means). The Emergency Plan shall be reviewed by the Permit Holder annually, and any proposed modifications/amendments must be communicated to the Agency for approval.

8.9 The Permit Holder shall maintain access to one or more subscription services as necessary to allow mobilization of a Capping Stack to the Payara Project location within five (5) days or less of an uncontrolled well event, consistent with the Capping Stack Report until such time as any new system is implemented pursuant to sub-section (8.15) below.

8.10 Within thirty (30) days of the date of the Permit, the Permit Holder shall submit to the EPA for approval, terms of reference for a study detailing the implementation of a system that allows for deployment of a Capping Stack and Debris Removal Systems within three (3) days and four days (4) of an uncontrolled well event, including the cost and benefits of each such system.

8.11 The Permit Holder shall, within three (3) months of the date of Permit, supplement its in-country First Response Toolkit to include all elements of the Essential First Response Toolkit, as outlined in the Capping Stack Report, excluding those elements requiring longer manufacturing times. Such longer-lead elements will be identified within thirty (30) days of the date of the Permit and shall be promptly completed and delivered to Guyana, but in no event shall delivery be later than nine (9) months from the date of the Permit.

8.12 Within one hundred and eighty (180) days of the date of approval of the terms of reference, the Permit Holder shall complete the study's final report.

8.13 During the pendency of the study the Permit Holder shall meet with the EPA and/or his representatives no less than every thirty (30) days, or more frequently on request, to provide an update on the progress of the study, discuss the issues raised by the study and come to agreement on resolution of issues and/or concerns regarding the study.

9.0 OIL SPILLS AND OTHER EMERGENCY MANAGEMENT

9.1 Adhere to the approved Oil Spill Response Plan contained within Volume III of the Environmental Impact Assessment, dated July 22, 2020.

9.2 Install an Emergency Shutdown System on the FPSO to initiate automatic shutdown actions to bring the offshore facility to a safe condition and which should be activated in case of any significant release.

9.3 Implement a corrosion management system to monitor risks and identify corrective actions in the atmospheric zone, splash zone, submerged zone and internal zones.

9.4 Develop and implement appropriate maintenance and monitoring programs to ensure the integrity of well field equipment.

9.5 Implement personnel training and field exercises such as drills in oil spill prevention, containment and response at the frequencies defined in the approved Oil Spill Response Plan submitted in the Environmental Impact Assessment.

9.6 Inspect, maintain and operate in-country spill response and containment equipment in accordance with the defined OSRP, which will include: monthly inspection of oil spill response equipment, quarterly test run of oil spill response equipment, annual preventive maintenance program execution, and annual exercise and deployment of oil spill response equipment to test readiness and response capability. Ex-country spill response equipment shall be inspected according to the oil spill response organization's established programs which are aligned with good industry practice and periodically verified by operator.

9.7 Spills and near misses shall be documented and made available to the Agency upon request.

9.8 Notify the Agency in alignment with the approved Oil Spill Response Plan for the utilization of in-situ burning and/or use of dispersant (e.g., Corexit 9500, Corexit 9527A, Finasol OSR 52, and Dasic Slickgone NS.).

9.9 Build Capacity where applicable and/or ensure continued Oil Spill Response capacity building among key national Agencies, Community Based Organizations, Regional Democratic Councils, Neighbourhood Democratic Councils and other relevant stakeholders in Regions 1, 2, 3, 4, 5, and 6.

10.0 DISPERSANTS

10.1 Within ninety (90) days from the date of the Permit, the Licensee shall provide a report calculating the appropriate volume of dispersants sufficient for immediate deployment for any Tier 3 event. The report shall not be deemed final until approved by the EPA.

10.2 Following the EPA's approval of the report, the Licensee shall maintain throughout the Permit term such volume of dispersants and the required deployment equipment so as to sufficiently and effectively deal with any Tier 3 event.

11.0 EMPLOYEES

11.1 Operate in accordance with the Occupational Safety and Health Act, 1997.

11.2 Employees must, at all times, be provided with the necessary personal protective equipment to job specification.

11.3 Implement and document training for all employees and contractors on the conditions of the Environmental Permit and good environmental management practices.

11.4 Employ a Health Safety and Environmental Officer and/or establish a health and Safety Committee who would be responsible for the implementation of the Health, Safety, Environmental and Social Management Plan and the terms and conditions of this Permit.

12.0 COMPLIANCE MONITORING AND REPORTING

12.1 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:

i. The identification information of the facility;

ii. Types and quantities of waste including hazardous waste generated, treatment and disposal (both onshore and offshore);

iii. Notwithstanding the obligation to immediately report any accidents and/or non-compliances with this permit, a summary of any accidents and non-compliances that may have occurred and any action(s) taken should be provided;

iv. A report on all routine marine species observations on vessels, and any mitigation measures implemented to avoid injury or harm;

v. Provide and inventory of prior years' emissions including but not limited to particulate matter, sulphur dioxide, volatile organic compounds, carbon monoxide, nitrogen dioxide, and other greenhouse gases as applicable;

vi. Report on generation, treatment, and disposal of wastewater generated on all vessels associated with the project;

vii. Any other matter the Agency may require.

12.2 Retain copies of all reports required by this Permit for a period of at least three (3) years.

12.3 Provide any information or copies of records requested within a reasonable timeframe, as requested by the Agency.

12.4 Submit to the Agency annually a summary of any non-conformances with the Environmental Permit and corrective actions taken.

12.5 Submit **Environmental Annual Report** to the EPA on or before **March 31** every year on your compliance with this Permit (Please see attached, *Guidelines for the Preparation of Environmental Annual Reports*).

12.6 Submit to the Agency Ballast Water Management Plans prepared specifically for the FPSO, Drill Ship, installation and support vessels, outlining how ballast water is managed in accordance with international standards.

12.7 Submit to the Agency within **one (1) week** of commencement of drilling a list and estimated quantities of all additives to be used in the drilling fluids.

12.8 Notify the Agency **21 days prior** to the proposed date of making any changes in the type of drilling fluid to be used, and outline the disposal/recycle/treatment methods to be applied. Notification after the 21 days period can be accepted under conditions where the notification period was not feasible or where flow assurance or safety risks are a concern.

12.9 Submit End of Well Reports **ninety (90) days** following the completion of drilling operations for each well with estimated quantities of fluids, additives and cuttings discharged, duration of discharges, and estimated maximum concentration of each constituent in the discharged drilling fluid.

12.10 Inform the Agency in the End of Well Report of tests conducted with the Blow out Preventer (BOP) equipment, detailing occasions where there was an influx of formation fluids, the well control methods applied, and their effectiveness.

12.11 Inform the Agency in a timely manner of any variation or intentions to conduct other activities not stipulated in this permit, such as, but not limited to Side-tracking of a well.

12.12 Notify the Agency in writing, **two (2) years** prior to planned decommissioning of the well, (save and except where mechanical issues or safety concerns are encountered that will affect the integrity of the well to continue operations) and submit revised End of Operations Decommissioning Plan including Well Abandonment Plan for approval.

12.13 Notify the Agency in writing, **six (6) months** prior to well abandonment (save and except where mechanical issues or safety concerns are encountered that will affect the integrity of the well to continue operations).

12.14 Submit to the EPA report(s) on the progress of the Project activities and compliance with the conditions under which this Permit was granted within **two (2) months** after the closure of activity specific Project stage (e.g., drilling, installation, etc.).

12.15 Report spills to the Agency and other relevant authorities in accordance with the Oil Spill Response Plan.

12.16 Notify the Agency in writing, 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

12.17 Inform the Agency prior to or within **thirty (30) days** of any change of name or ownership of the Project.

12.18 Submit a copy of the International Oil Pollution Prevention (IOPP) Certificate for the FPSO.

12.19 Within three (3) months of issuance of this Permit, the Permit Holder shall submit to the EPA for its approval, a Terms of Reference for the development of an enhanced Environmental Monitoring, Reporting and Verification Framework. A Draft Environmental Monitoring, Reporting and Verification Framework shall be submitted by the Permit Holder to the EPA for its approval, within three (3) months of the approved Terms of Reference.

12.20 Submit **monthly reports** to the EPA on the progress of the operation and compliance with the conditions under which this Permit was granted on or before **the 10^{th} day of the following month**.

12.21 An annual audit of Safety Critical Drilling and Production Operations, including waste management, to ISO 14001 (as amended or such equivalent standards) may be conducted by the Government. The Permit Holder will request the Government to submit any audit report must be submitted to the Agency in the Annual Report required under Condition 12.5. All areas of shortcomings identified by the audit must addressed by the Permit Holder before the next year's audit.

13.0 LIABILITY FOR POLLUTION DAMAGE

13.1 The Permit Holder shall have insurance of such type and in such amount as is customary in the international petroleum industry in accordance with good oil field practices for Petroleum Operations in progress Offshore Guyana in respect of:

i. Loss or damage to all assets used in Project.
ii. Pollution caused in the course of the Project for which EGGPL will be, jointly and severally, held responsible.
iii. Loss or damage to property or bodily injury suffered by any third party in the course of the Project for which EGGPL is liable to, according to the terms of the policy.
iv. EEPGL's liability to its employees engaged in the Project.
v. Any other requirement(s) made by the EPA under Condition 13.4 below.

13.2 Condition 13.1 shall not be interpreted to mean the Permit Holder, its Parent Company, Servants and/or Agents will not be liable to any other existing or forthcoming applicable laws, rules and regulations related to insurance for Petroleum Operations within or out the jurisdiction of Guyana.

13.3 This Permit is issued subject to the fulfillment of the obligations outlined in Condition 13.1, above, and in a correspondence dated March 20, 2019 indicating the commitment of EEPGL to obtain such insurance for coverage of environmental liabilities, in accordance with the requirements of the EPA and the Bank of Guyana. Failure to fulfill such obligations or commitments is in breach of this Permit and will result in its immediate cancellation.

13.4 The EPA shall reserve the right to request and review the environmental liability insurance policy. Such review is subject to the following:

i. Provision of documentary evidence that the insurer is authorised to provide the insurance in the jurisdiction and to provide evidence of the insurer's financial strength.

ii. Provision of details of the amount of cover and the cost profile, evidence of authorisation of the institution or parent (insurer's) to provide insurance. As well as, evidence of any supplementary cover required to cover gaps in the primary cover, inclusive of details relevant to the excess level which is the responsibility of the policyholder to cover.

iii. Agreement to provide notification to the EPA of modification, cancellation, expiration, intent to renew, renewal or non-renewal and expiry dates of the policy.

iv. Provision of reports on whether the insurance policy is maintained or renewed so that the EPA can determine if it is acceptable or if it requires a replacement policy.

v. Provision of the final insurance policy or certificate of insurance, evidence of financial strength and payment of premium.

13.5 The Permit Holder must, as soon as reasonably practicable, provide from the Parent Company or Affiliate Companies of Permit Holder and its Co-Venturers ("Affiliates") one or more legally binding agreements to the EPA, undertaking to provide adequate financial resources for Permit Holder and its Co-Venturers to pay or satisfy their respective environmental obligations regarding the Stabroek

Block if EEPGL or its Co-Venturers fail to do so. As a consequence, EEPGL will be required to:

1) provide evidence of the following:

- That the Affiliate(s) are authorised to provide that guarantee or agreement in this jurisdiction.
- That the Affiliate(s) have sufficient financial strength for the amount of the potential liability.
- That the Affiliate(s) have the corporate legal capacity to enter into the agreement.

2) Agree to the following:

- To provide notification of cancellation, expiration, renewal or non-renewal and expiry dates of the Agreement.
- As well as, to provide annual audited financial statements and notification if the Affiliate(s) are no longer likely to be able to meet specified financial obligations.

13.6 The Permit Holder, his Servants and/or Agents shall be strictly liable for the adverse effect of any discharge or release, or cause or permit the entry of pollution, contaminant in any amount, concentration or level in excess of that prescribed by the regulations or stipulated by any environmental authorisation which are attributed to any Project (and more specifically petroleum activities) in accordance with section 19(1) and (2) of the Environmental Protection Act, Cap. 20:05, Laws of Guyana.

13.7 The Permit Holder shall compensate any Party who suffers any loss or damage as a result of the attributed project, in accordance with section 19(3)(e) of the Environmental Protection Act Cap. 20:05, Laws of Guyana.

13.8 Do not assign or transfer the Environmental Permit to any person without prior consent of the Agency.

13.9 The Permit Holder, his Servants and/or Agents shall be strictly liable to penalties prescribed for any material or environmental harm caused by pollution of the environment intentionally or recklessly, in accordance with section 39 (1), (2), (3) and (4) of the Environmental Protection Act, Cap. 20:05, Laws of Guyana.

13.10 The Permit Holder, his Servants and/or Agents shall be liable jointly and/or severally for any gross negligence or willful misconduct to the marine environment, biodiversity, protected species and natural habitat with respect to any release or discharge, spill, contaminant fluids, oil or lubricants any facilities permitted under this project.

13.11 The Permit Holder, his Servants and/or Agents shall be liable jointly and/or severally for environmental damage due to pollution from its activities within Guyana, its territorial waters, contiguous zones, continental margins continental shelf, and Exclusive Economic Zone, inclusive of damage to the marine environment, biodiversity, protected species and natural habitat with respect to any release or discharge, spill, or contamination which is attributable to the Permit Holder and his agents or contractors. This is in accordance with Section 49 (1) of the Maritime Zones Act 2010 and is subject to any other existing or forthcoming laws, regulations and standards governing the protection of the marine environment.

13.12 Where it appears to the EPA that the Permit Holder is engaged in any activity that may pose serious threat to natural resources or serious pollution of the environment or any damage to public health, the EPA shall issue to the Permit Holder a Prohibition Notice ordering him to immediately cease the offending activity in accordance with section 27 of the Environmental Protection Act Cap. 20:05, Laws of Guyana.

13.13 Should the Permit Holder contravene or is likely to contravene any condition of this Permit, the EPA may serve him an enforcement notice in accordance with section 26 of the Environmental Protection Act Cap. 20:05, Laws of Guyana.

13.14 Section 21(9) of the Environmental Protection Act, Cap. 20:05, shall apply mutatis mutandis to this Environmental Permit, for any breaches of terms or conditions herein.

14.0 INSTITUTIONAL AUTHORITY

14.1 The EPA reserves the right to conduct regular inspections of the permitted operation(s) 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, and any forthcoming regulations, best practices, guidelines and standards made under this Act.

14.2 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 officer 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.

14.3 This Environmental Permit is not the final development consent. Permission from the other relevant regulatory bodies must be obtained prior to Project implementation as required.

14.4 The Permit shall be governed by, interpreted and construed in accordance with the Laws of Guyana including but not limited to the Environmental Protection Act and Regulations and consistent with such rules of international laws as may be applicable or appropriate, including the generally accepted customs and usages of the international petroleum industry.

14.5 This Permit is effective for the period stipulated herein **(September 24, 2020 to September 23, 2025)** noting however, this Permit and conditions herein, and applicable fees will be reviewed annually in consideration of the previous year's annual audit required by Condition 14.8, and the studies required by Condition 1.5.

14.6 The Agency reserves the right to suspend, modify or cancel this Permit, in accordance with Regulation 14 of the Environmental Protection (Authorisations) Regulations, 2000, in consideration of:

a. any changes in fee structure as determined by the EPA for projects of this nature,
b. improvement in environmental best practices, and best available techniques which consider economic and technological feasibility (as described in 1.8), but not limited to any material change in activities and /or operations proposed by the Permit Holder
c. Recommendations arising from the updated Environmental Impact Statement and Environmental and Socioeconomic Management Plan and the studies provided for under section 1.5
d. Any other information arising from compliance monitoring, including the successful completion of an independent third party audit of the facility.

14.7 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 **March 24, 2025**.

14.8 This Environmental Permit shall remain valid until **September 23, 2025**, unless otherwise revised, amended, suspended, or revoked in accordance with its provisions or the Environmental Protection Act, Cap 20:05, Laws of Guyana, the Environmental Protection (Amendment) Act, 2005, and the Environmental Protection (Authorisations) Regulations, 2000.

14.9 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 prescribed under the Environmental Protection Act, Cap. 20:05, Laws of Guyana, the Environmental Protection Regulation, 2000 and other applicable Laws of Guyana.

Signed by Sharifah Razack on behalf of the Environmental Protection Agency.
Ms Sharifah Razack
Executive Director (Ag.)

Date: 2020. 09. 24

Esso Exploration and Production Guyana Limited (EEPGL), hereby accepts the above terms and conditions upon which this Operation Permit 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: ALISTAIR G. ROUTLEDGE

DESIGNATION: PRESIDENT

SIGNATURE: ARoutledge

DATE: 24 SEPTEMBER 2020