

6<sup>th</sup> June 2021

Sharifah Razack  
Director (Ag)  
Environmental Protection Agency  
Ganges Street  
Sophia  
By email: [srazack@epaguyana.org](mailto:srazack@epaguyana.org)

Dear Ms Razack,

**Esso Exploration and Production Guyana Ltd: Proposed Yellowtail project**

Section 11 of the Environmental Protection Act Cap 20:05 says:

“(6) Before any environmental impact assessment is begun the Agency shall at the developer’s cost publish in at least one daily newspaper a notice of the project and make available to members of the public the project summary referred to in subsection (1).

“(7) Members of the public shall have twenty-eight days from the date of publication referred to in subsection (6) to make written submissions to the Agency setting out those questions and matters which they require to be answered or considered in the environmental impact assessment.”

We make this submission in relation to the proposed Yellowtail project.

Section 11 of the Environmental Protection Act also says that a developer shall submit a summary of the project.

Esso Exploration and Production Guyana Ltd (EEPGL) is the developer of the proposed Yellowtail project. The document that purports to be the project summary for the Yellowtail Project is dated April 2021 on the front page and March 2021 on other pages. This ‘project summary’ is unsigned and states that it is prepared by Michael Persaud not EEPGL. There is nothing to prove that it is EEPGL’s document and nothing to stop EEPGL from repudiating the document later on.

It is standard practice that documents submitted to any government agency are signed by someone competent to take responsibility and dated accurately. ExxonMobil would not be permitted to submit an unsigned document to any government agency in the United States.

**EEPGL must submit a valid Project Summary that is signed by the Country Manager Alistair Routledge, who takes full responsibility for its contents.**

Using the information in the unofficial and unsigned document purporting to be the EEPGL project summary, we the undersigned members of the Guyana public set out in Appendix I the questions and matters that we require to be considered and answered in the EIA for the proposed Yellowtail project.

#### Appendix I

#### Questions and matters to be considered and answered in the EIA for the proposed Yellowtail Project

Dr. Mark Chernaik, Staff Scientist, Environmental Law Alliance Worldwide has provide advice on some of the items raised in this written submission.

#### 1. **What are the Greenhouse Gas (GHG) Emissions from the proposed Yellowtail project?**

Section 11 (4)(a) of the EP Act requires the developer to identify, describe and evaluate the direct and indirect effects of the proposed project on the environment. The environment includes the atmosphere and climate.

(i) **What are the total scope 1, scope 2 and scope 3 greenhouse gas emissions from the Yellowtail project?**

(ii) **What would be the effect of those greenhouse emissions on the climate system?**

(iii) **What would be the effect of those greenhouse emissions on the ocean?**

#### 2. **What would be the full extent of the climate damage caused by the proposed Yellowtail project?**

Page 2 of the Project Summary states:

“The production facilities to be installed include subsea equipment attached to the seafloor as well as processing equipment on the ocean’s surface known as a Floating, Production, Storage, and Offloading (FPSO) vessel (see Figure 11). ....

“The FPSO is an industrial floating complex that continuously separates produced water and associated gas from the oil. The anticipated production rate for the FPSO ranges between approximately 34 977 m<sup>3</sup> (220,000 barrels) and 39 747 m<sup>3</sup> (250,000 barrels) of oil per day.”

ExxonMobil Corporation’s business model is to extract oil and convert it to energy, such as the transportation fuels the company sells. is the intention that nearly all such oil the project generates be combusted, resulting in emissions of CO<sub>2</sub> that further raise atmospheric levels of CO<sub>2</sub>.

It is well established that emissions of CO<sub>2</sub> increases the global burden of adverse climate consequences caused by rising atmospheric levels of greenhouse gases.

**The EIA for the proposed Yellowtail Project must provide a full accounting of the cost of the climate damages associated with the project, including costs associated with emissions of CO<sub>2</sub> from the intended ultimate use of the project's expected production of oil and gas.**

The most recent estimate of the cost of greenhouse emissions is \$417 for every ton of CO<sub>2</sub> emitted into the atmosphere under the most widely expected climate scenarios.

See: Ricke, K., Drouet, L., Caldeira, K., & Tavoni, M. (2018). Country-level social cost of carbon. *Nature Climate Change*, 8(10), 895.

### **3. Well blowout**

The proposed Yellowtail project is in the Stabroek Block which is located in the Amazon-Orinoco influence zone an area of high biodiversity.

The Yellowtail Development Project proposed by EEPGL involves wells that would be drilled at great depths. This ultra-deep water drilling is extremely dangerous and carries the risk of a well blow out like the Macondo/Deepwater Horizon catastrophe in 2010 which killed 11 people, devastated wildlife populations and destroyed livelihoods. It also cost BP more than US\$68Bn.<sup>1</sup> A well blow out would be a catastrophic event that could damage/destroy marine ecosystems in Guyana and the Caribbean.

In testimony to the Hearing before the Subcommittee on Oversight and Investigations of the Committee on Energy and Commerce House of Representatives 111<sup>th</sup> Congress on 17 June 2010, Rex Tillerson the then CEO of ExxonMobil stated that the response capability to respond to a spill did not exist and probably never will.

- (i) Does the response capability to a spill exist now and if so what is it?**
- (ii) Can EEPGL guarantee that there will be no well blowout?**
- (iii) If a well blows out, how long will it take for EEPGL to bring a capping stack to the well?**
- (iv) How long will it take for EEPGL to fit the capping stack to the well?**
- (v) Who will EEPGL employ to transport and fit the capping stack?**
- (vi) How will EEPGL remove from the ocean the oil that surges into the ocean from a well blow out?**
- (vii) How many boats and personnel will EEPGL have available for clean up?**
- (viii) How much money will set aside to pay for the costs of clean up?**
- (ix) Will EEPGL pay compensation to the Caribbean islands for damage to their fishing and tourism industries?**
- (x) Is it possible for oil to reach Guyana's coast and rivers?**
- (xi) What would be the impact of oil on Guyana's coast and rivers, including the impact on marine and freshwater wildlife and ecosystems?**

### **4. How does EEPGL plan to comply with international best practices in regard to deep water wells?**

The inability to activate, or trigger, the blowout preventer and regain well control during the Macondo disaster in the Gulf of Mexico spill exposed a serious design defect of oil exploration wells in deep water.

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<sup>1</sup> <https://www.reuters.com/article/us-bp-deepwaterhorizon-idUSKBN1F50NL>

As a result of the Deepwater Horizon oil spill, the U.S. Bureau of Safety and Environmental Enforcement (BSEE) finalized a rule intended to prevent another similar disaster by imposing design requirements for blowout preventers and related equipment for controlling a well in the event of a serious accident.

Please refer to 30 CFR Part 250, Subpart G - Well Operations and Equipment<sup>2</sup> and 30 CFR 250.734 - What are the requirements for a subsea BOP system?<sup>3</sup>

The important requirements of the rule are as follows:

“When operating with a subsea BOP system, you must:

- (1) Have at least five remote-controlled, hydraulically operated BOPs;
- (2) Have an operable redundant pod control system to ensure proper and independent operation of the BOP system;
- (3) Have the accumulator capacity located subsea, to provide fast closure of the BOP components and to operate all critical functions in case of a loss of the power fluid connection to the surface;
- (4) Have a subsea BOP stack equipped with remotely operated vehicle (ROV) intervention capability;
- (5) Maintain an ROV and have a trained ROV crew on each rig unit on a continuous basis once BOP deployment has been initiated from the rig until recovered to the surface. The ROV crew must examine all ROV-related well-control equipment (both surface and subsea) to ensure that it is properly maintained and capable of carrying out appropriate tasks during emergency operations;
- (6) Provide autoshear, deadman, and EDS systems for dynamically positioned rigs; provide autoshear and deadman systems for moored rigs;
- (7) Demonstrate that any acoustic control system will function in the proposed environment and conditions;
- (8) Have operational or physical barrier(s) on BOP control panels to prevent accidental disconnect functions;
- (9) Clearly label all control panels for the subsea BOP system;
- (10) Develop and use a management system for operating the BOP system, including the prevention of accidental or unplanned disconnects of the system;
- (11) Establish minimum requirements for personnel authorized to operate critical BOP equipment
- (12) Before removing the marine riser, displace the fluid in the riser with seawater;
- (13) Install the BOP stack in a well cellar when in an ice-scour area;
- (14) Install at least two side outlets for a choke line and two side outlets for a kill line;
- (15) Install a gas bleed line with two valves for the annular preventer no later than April 30, 2018;
- (16) Use a BOP system that has the following mechanisms and capabilities; (i) A mechanism coupled with each shear ram to position the entire pipe, completely within the area of the shearing blade and ensure shearing will occur any time the shear rams are activated. This mechanism cannot be another ram BOP or annular preventer, but you may use those during a planned shear. You must install this mechanism no later than May 1, 2023; (ii) The ability to

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<sup>2</sup> <https://www.law.cornell.edu/cfr/text/30/part-250/subpart-G>

<sup>3</sup> <https://www.law.cornell.edu/cfr/text/30/250.734>

mitigate compression of the pipe stub between the shearing rams when both shear rams are closed; (iii) If your control pods contain a subsea electronic module with batteries, a mechanism for personnel on the rig to monitor the state of charge of the subsea electronic module batteries in the BOP control pods.”

If ExxonMobil were proposing the Yellowtail Development Project in waters of the United States, then the project would need to comply with the well-control rule of the U.S. Bureau of Safety and Environmental Enforcement (BSEE).

- (i) **What systems will EEPGL put in place to prevent a well blowout?**
- (ii) **The EIA for the proposed Yellowtail Project must provide an item-by-item account of how the project would comply with each applicable provision of 30 CFR Part 250, Subpart G - Well Operations and Equipment and in particular 30 CFR section 250.734.**

**5. How does EEPGL plan to comply with international best practices in regard to the prevention of flaring?**

Since beginning operations in December 2019 EEPGL has flared billions of cubic feet of gas and continues to flare. Flaring of gas associated with oil & gas activities is a cause of substantial harm to the environment.

Page 1 of the Project Summary states:

“In 2020, the FPSO Liza Destiny experienced unanticipated technical challenges and unplanned gas flaring during its startup and commissioning process. EEPGL has conducted comprehensive root cause analyses of these issues, and evaluated potential improvements to gas handling systems, sparing philosophy, and execution procedures. EEPGL plans to take significant steps to incorporate the lessons learned from the commissioning of the Liza Destiny into future projects, including Yellowtail.”

Under rules enacted by the U.S. Bureau of Safety and Environmental Enforcement, flaring of associated gas is strictly regulated. If ExxonMobil were proposing the Yellowtail Development Project in waters of the United States, then the project would need to comply with restrictions on flaring under 30 CFR Subpart K - Oil and Gas Production Requirements, § 250.1160 When may I flare or vent gas. We set out the rules below:

“30 CFR § 250.1160 When may I flare or vent gas?

“(a) You must request and receive approval from the Regional Supervisor to flare or vent natural gas at your facility, except in the following situations:

<b>Condition</b>	<b>Additional requirements</b>
(1) When the gas is lease use gas (produced natural gas which is used on or for the benefit of lease operations such as gas used to operate production facilities) or is used as an additive necessary to burn waste products, such as H2S	The volume of gas flared or vented may not exceed the amount necessary for its intended purpose. Burning waste products may require approval under other regulations.
(2) During the restart of a facility that was shut in	Flaring or venting may not exceed 48 cumulative

- because of weather conditions, such as a hurricane
- hours without Regional Supervisor approval.
- (3) During the blow down of transportation pipelines downstream of the royalty meter
- (i) You must report the location, time, flare/vent volume, and reason for flaring/venting to the Regional Supervisor in writing within 72 hours after the incident is over.
- (ii) Additional approval may be required under subparts H and J of this part.
- (4) During the unloading or cleaning of a well, drill-stem testing, production testing, other well-evaluation testing, or the necessary blow down to perform these procedures
- You may not exceed 48 cumulative hours of flaring or venting per unloading or cleaning or testing operation on a single completion without Regional Supervisor approval.
- (5) When properly working equipment yields flash gas (natural gas released from liquid hydrocarbons as a result of a decrease in pressure, an increase in temperature, or both) from storage vessels or other low-pressure production vessels, and you cannot economically recover this flash gas
- You may not flare or vent more than an average of 50 MCF per day during any calendar month without Regional Supervisor approval.
- (i) For oil-well gas and gas-well flash gas (natural gas released from condensate as a result of a decrease in pressure, an increase in temperature, or both), you may not exceed 48 continuous hours of flaring or venting without Regional Supervisor approval.
- (6) When the equipment works properly but there is a temporary upset condition, such as a hydrate or paraffin plug
- (ii) For primary gas-well gas (natural gas from a gas well completion that is at or near its wellhead pressure; this does not include flash gas), you may not exceed 2 continuous hours of flaring or venting without Regional Supervisor approval.
- (iii) You may not exceed 144 cumulative hours of flaring or venting during a calendar month without Regional Supervisor approval.
- (i) For oil-well gas and gas-well flash gas, you may not exceed 48 continuous hours of flaring or venting without Regional Supervisor approval.
- (ii) For primary gas-well gas, you may not exceed 2 continuous hours of flaring or venting without Regional Supervisor approval.
- (7) When equipment fails to work properly, during equipment maintenance and repair, or when you must relieve system pressures
- (iii) You may not exceed 144 cumulative hours of flaring or venting during a calendar month without Regional Supervisor approval.
- (iv) The continuous and cumulative hours allowed under this paragraph may be counted separately from the hours under paragraph (a)(6) of this section.

“(b) Regardless of the requirements in paragraph (a) of this section, you must not flare or vent gas over the volume approved in your Development Operations Coordination Document (DOCD) or your Development and Production Plan (DPP) submitted to BOEM.

“(c) The Regional Supervisor may establish alternative approval procedures to cover situations when you cannot contact the BSEE office, such as during non-office hours.

“(d) The Regional Supervisor may specify a volume limit, or a shorter time limit than specified elsewhere in this part, in order to prevent air quality degradation or loss of reserves.

“(e) If you flare or vent gas without the required approval, or if the Regional Supervisor determines that you were negligent or could have avoided flaring or venting the gas, the hydrocarbons will be considered avoidably lost or wasted. You must pay royalties on the loss or waste, according to 30 CFR part 1202. You must value any gas or liquid hydrocarbons avoidably lost or wasted under the provisions of 30 CFR part 1206.

“(f) Fugitive emissions from valves, fittings, flanges, pressure relief valves or similar components do not require approval under this subpart unless specifically required by the Regional Supervisor.”

The EIA for the proposed Yellowtail Project must provide an item-by-item account of how the project will comply with each applicable provision of 30 CFR Subpart K - Oil and Gas Production Requirements, § 250.1160 When may I flare or vent gas.

**6. Noise**

- (i) How many decibels of noise will the project generate, over what period of time? Please set out this information on a graph.
- (ii) What is the impact of noise on marine wildlife in particular whales, dolphins, turtles and fish. Please differentiate by species.

**7. Discharges**

- (i) What are the proposed discharges into the ocean?
- (ii) What are the impacts of those discharges on the environment?

**8. Cumulative impact**

EEGPL proposed to carry out Yellowtail after Liza 2 and Payara come on stream.

- (i) What are the cumulative impacts of Yellowtail when the impacts of Liza 1, Liza2 and Payara are taken into account?

**9. Decommissioning**

The International Energy Agency has stated that there should be no new oil and gas developments if the world is to stay within safe limits of global heating.<sup>4</sup>

ExxonMobil shareholders have stated that, “Exxon’s current direction is premised on outdated assumptions about high oil prices, demand, and margins that are incompatible with the reality of climate change and the inevitable transition to renewable energy sources.”<sup>5</sup> On May 26<sup>th</sup>, ExxonMobil shareholders voted on to ExxonMobil’s board 3 new directors who are committed to aligning the company’s business operations to achieve net zero emissions on an accelerated timeframe.<sup>6</sup>

Also on May 26<sup>th</sup>, a Dutch court ruled that in order to comply with the goals of the Paris Agreement, Royal Dutch Shell must reduce its CO2 emissions by 45% by 2030 from 2019 levels.<sup>7</sup> There is a risk of similar cases and similar decisions being made against ExxonMobil.

Consequently there is a risk that decommissioning will occur earlier than expected.

- (i) What would be the cost of decommissioning of the Yellowtail project based on today’s costs?
- (ii) Does EEPGL have the money to cover the costs of decommissioning?
- (iii) How much equipment will be abandoned on the ocean floor?
- (iv) What is the impact on the environment of abandoning equipment on the ocean floor?

## **10. Financial ability to carry out the Yellowtail project.**

- (i) What profit did EEPGL make in 2020?**

Respectfully,

Natalia Aaron	Student, University of Guyana
Medino Abraham	
Charlise Adams	Student, University of Guyana
Akeem Babb	
Jamal Bacchus	
Trevon Baird	Lecturer, University of Guyana
Leroy Blair	
Anne Braithwaite	Social justice activist
Jack Brodie	
Natalie Brown	
Karishma Budhram	Student, University of Guyana
Shevonne Canzius	Secretary, Region 10 conservation society

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<sup>4</sup> <https://www.theguardian.com/environment/2021/may/18/no-new-investment-in-fossil-fuels-demands-top-energy-economist>

<sup>5</sup> <https://curexxon.org/why/>

<sup>6</sup> Reuters (May 26<sup>th</sup>) “Exxon loses board seats to activist hedge fund in landmark climate vote.” <https://www.reuters.com/business/sustainable-business/shareholder-activism-reaches-milestone-exxon-board-vote-nears-end-2021-05-26/>

<sup>7</sup> The judgment in English is available here: <https://uitspraken.rechtspraak.nl/inziendocument?id=ECLI:NL:RBDHA:2021:5339>

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