

To: Mr Kemraj Parsram, Executive Director, EPA

From: Janette Bulkan

Date: 14 August 2022

Subject: Written submission concerning XOM/EEPGL 35 multiwell exploration and appraisal (E&A) drilling program, Stabroek Tract, offshore Guyana

This submission is in response to EPA public notice undated but created 19 July 2022 inviting 'written submissions to the Agency setting out those questions and matters which they require to be answered or considered in the environmental impact assessment of the cumulative effects of the proposed project/activities in the Stabroek Block'.

Please note that EEPGL itself refers in its project summary to the 'Stabroek Licence Area'. The usual international term is 'Tract', avoiding confusion of 'Stabroek Block' with the graticular blocks defined in the petroleum legislation of Guyana in relation to latitude and longitude.

Impact assessment across the whole Stabroek Tract

The project summary by EEPGL dated May 2022 refers to four Prospect Areas with boundaries as shown in Figure 1 but not defined by GPS coordinates. EEPGL uses the phrase 'may be drilled', apparently implying that the wells may be drilled elsewhere in the Tract. The consideration of impacts across the entire Tract or Licence Area would be consistent with the requirement in the EP Act (1996, section 11 (5) (a) (i) for the whole project area to be evaluated, mitigated and monitored. The treatment of impact assessment on a piecemeal basis, by individual oil fields and their individual field development plans, is contrary to the sense of the EP Act and environmentally illogical. The need for impact assessment of the entire Stabroek Tract was appreciated and urged by Dr Vincent Adams, the previous Director of the EPA.

EEPGL's repetitive and substantially duplicative treatment of EIAs by its consultants ERM for the first four oil fields Liza-1, Liza-2, Payara and Yellowtail is another indication that the XOM consortium appreciates the interconnectivity or indivisibility of most of the environmental factors and issues across the entire Tract. In this context, the production of a project summary for the 35-multiwell drilling program and the recent call for inputs into the TORs for a fifth oil field (Uaru), using a different environmental consultancy (Acorn) appear to be contradictory.

I strongly urge that the present time is opportune for a cumulative environmental impact assessment covering the entire Stabroek Tract, in the spirit of the above-mentioned section of the EP Act. Such an assessment should, of course, build on the four EIAs by ERM and sub-contractors, apply lessons learned by EEPGL as the operator of the licensed Tract, and fill at least the major gaps left by the four existing EIAs.

Incorporation of lessons learned implies public access to EEPGL performance data

EEPGL and ERM have explicitly taken the position that they have no contractual responsibility to respond to questions from civil society persons, that they deal with the political administration and technical agencies of the Government of Guyana, and that civil society should direct questions to the Ministries and agencies. EEPGL also claims to supply daily performance data to the agencies, but none

of such data is publicly accessible with the partial exception of one graphical website. It is therefore impossible for civil society persons to understand the lessons learned by EEPGL since 2012 and especially since the start of oil production in December 2019.

Violations of the National Constitution

It is thus not possible for civil society persons to confirm the assertions of EEPGL in relation to the natural resource assets of the people of Guyana, thus violating Article 13 on shared governance in the National Constitution cap. 01-001 and possibly Articles 36 and 149J on entitlement to a healthy environment:

Article 13 - The principal objective of the political system of the State is to establish an inclusionary democracy by providing increasing opportunities for the participation of citizens, and their organisations in the management and decision-making processes of the State, with particular emphasis on those areas of decision-making that directly affect their well-being.

Article 36 - The well-being for the nation depends upon preserving clean air, fertile soils, pure water and the rich diversity of plants, animals and eco-systems.

Article 149J - 1) Everyone has the right to an environment that is not harmful to his or her health or well-being.

(2) The State shall protect the environment, for the benefit of present and future generations, through reasonable legislative and other measures designed to -

(a) prevent pollution and ecological degradation;

(b) promote conservation; and

(c) secure sustainable development and use of natural resources while promoting justifiable economic and social development.

Gaps in current EIAs for EEPGL

I am not offering a comprehensive view of the gaps in the EIAs prepared by ERM. To some extent the gaps and weak treatments by ERM are a consequence of the failure of the EPA to learn from the factors which must be addressed in the EIAs prepared for somewhat similar circumstances in other countries with offshore petroleum resources.

1. Attention to safe operating limits for both drillships and FPSOs. Civil society in Guyana has not been informed of the safety envelope within which the connected engineering systems of the drillships and FPSOs can operate. If the equipment was calibrated on installation to be safe to a hydrostatic pressure of a well to 6000 metres deep, is it safe to drill several thousand metres deeper as is implied by in-field drilling in the 35-multiwell programme? How is the increased hydrostatic pressure addressed safely by EEPGL?
2. As shown on the UK Hydrographic Office charts used by MARAD, the speed of the ocean current through the area overlying the present four fields would move a slick from an oil spill to the Atlantic coast of Trinidad in only four days. Fouling of the beaches of the tourism-dependent Caribbean islands could result in gigantic legal penalties on Guyana and XOM. The EIAs so far have taken a 'cross-fingers' view – a major blow-out is so improbable that the very high impact is discounted by XOM. What is Guyana's defence? We do not even know what or when OSRP drills and exercises are being conducted by EEPGL. It is not good enough to make general

prescriptions in the environmental permits authorised by the EPA if there is no evidence through monitoring and public reporting that the prescriptions are being carried out promptly and correctly and that lessons are being learned.

3. The Stabroek Tract lies north of the grounds traditionally used by fishermen of Guyana for at least several generations. In the absence of reliable monitoring data on trends in landed fish catches and discards, it is not possible to assert that the oil field activities have only short-term or no influence on the steepening decline in catch data, as published in monthly reports by the Bank of Guyana. The obligation to apply the precautionary principle (or precautionary approach) is written into section 2 of the EP Act. EEPGL and ERM cannot simply assert that oil field activities have no effect on fish catches. The nature of the precautionary principle is that it is for the project proponent to prove the absence of damage/degradation/loss, not simply to assert no impact. The very qualitative and subjective approach to risk assessment in all the four EIAs is not compatible with the EP Act, and this weak approach is repeated in appendix 3 of the project summary.
4. As the artisanal fisheries sector and their families comprise about 1/10 of the working population of Guyana, and as the fishermen have no alternative sources of income, it is a logical deduction from the above-cited Articles of the National Constitution that the cumulative impact assessment should include a much more careful study of trends in the marine environment than was called for in the previous four EIAs.
5. The artisanal fishermen themselves are aware of several meteorological/physical/chemical factors (about 12) that may interact to cause changes in fish populations and fish migrations. It is not evident that such locally acquired knowledge and views have been tapped or evaluated against more quantitative survey data explicitly designed to reveal trends in the physico-chemical marine environment and the biotic responses. For example, research teams working offshore French Guiana have been studying the accretion and erosion of the mudbanks for several years, but this information does not seem to be evaluated or partnered in Guyana.
6. I recommend that long-term climate data apparently held by the Hydromet Department should be used to test the reported assertion in the brief FAO study on fish catch trends that climate heating is the main cause of the decline in fish catches in 2020-21. The improbability of assessing a trend using only two years of doubtful data has yet to be answered by the Fisheries Department, Ministry of Agriculture or the EPA, and the FAO study is not yet in the public domain.
7. Artisanal fishermen in Guyana assert the importance of seasonal trends in the outflows of cold sweet (non-saline) water from the major rivers as affecting the locations of commercial fish. It is not clear what reliable hydrological data are held by the Hydromet Department, because the last publication seems to be by the US Army Corps of Engineers at the end of the 1960s. the fishermen assert that the dark coloured water can sometimes be seen far out to sea, replacing the usual blue-green colour. What information does EEPGL have, from its drillships or from the OSVs which transit the fishing grounds daily between the oil fields and Georgetown Harbour?
8. Ms Simone Mangal-Joly has pointed out several times to the EPA, EEPGL and ERM that the four existing EIAs do not attempt to assess the fish populations in the project areas or Project Area of

Influence (mentioned on page 19 of the project summary but not defined). The EIAs do not indicate the status of the fish populations, their different habitats by species and by season, their reproductive habits (spawning seasons and locations), or anything about growth and mortality (natural and by fishing). Such information is needed by EEPGL to back its assertion of no important or significant negative impacts of oil activities on the fish of Guyana.

9. EEPGL does appear to have responded to insistent pressure from the Guyana Marine Conservation Society. The four existing EIAs mention monitoring procedures and avoidance and mitigatory actions with respect to marine turtles and cetaceans, but give far less attention to the economically much more important fisheries. We hear that crews of the drillships and FPSOs are aware that the vessels are acting as Fish Accumulating Devices (FADs) and that the crews are fishing off the vessels with rod and line. It is not evident that data from such catches are being provided to the EPA or Fisheries Department.

The conditional wording in the project summary

I understand that the natural uncertainties associated with deep-water petroleum resources force the use of the subjunctive mode sometimes in the text of the project summary. What is not clear is how this caution will evolve into firm Yes/No decisions.

It is also not clear why so many prescriptions are hedged by qualifiers such as ‘where possible’, ‘as warranted’, ‘where reasonably practicable’, ‘to the extent reasonably practicable’ without indication of the limits of what and where and when. Likewise, reference to ‘good international oil field practice’ and ‘best ship-keeping and navigation practices’ are not acceptable without reference to the international ISO-type Standard and the means of verification. In the case of ship safety, the International Rules for the Prevention of Collisions at Sea are the international norm and should be so referenced.

Similarly, references to procurement on page 26 do not seem to meet the requirements of the Local Content Act in Guyana.

These points should apply to both the EEPGL project summary and cumulative impact assessment and to the Acorn EIA commissioned apparently separately by EEPGL for the Uaru oil field.

Yours truly,



Janette Bulkan