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TOWARDS CONTINUOUS DEVELOPMENT OF THE PETROLEUM INDUSTRY IN GHANA: KEY ISSUES TO CONSIDER UNDER PETROLEUM (EXPLORATION AND PRODUCTION) (HEALTH SAFETY AND ENVIRONMENT) REGULATIONS, 2017 (L.I. 2258)

1. Introduction

Petroleum was discovered in commercial quantities in Ghana in 2007. During the decade that followed the discovery of petroleum in commercial quantities, Ghana enacted key subsidiary legislations including Petroleum (Local Content and Local Participation) Regulations, 2013 (L.I. 2204); Petroleum (Local Content and Local Participation) (Amendment) Regulations, 2021 (L.I. 2435); Petroleum (Fees and Charges) Regulations, 2015 (L.I. 2221); Petroleum (Exploration and Production)(Measurement) Regulations, 2016 (L.I. 2246); Petroleum (Exploration and Production) (Data Management) Regulations, 2017 (L.I. 2257), and Petroleum (Exploration and Production) (Health Safety and Environment) Regulations, 2017 (L.I. 2258) to underpin the legal architecture laid out for the sector.

Although other subsidiary legislations, guidelines and policies have become effective in the country post 2007, the emerging discourse on the impact of the extractive industry including oil and gas on the environment cannot be over emphasized.

Globally, evolving sustainable environmental strategies, transition to low carbon emissions, direct public and government policies informed by climate change agreements, investors and funding institutions decisions informed by environment, social and governance issues (ESG), revolutionary strides in technology, rapidly growing expectations for businesses to pursue sustainable strategies, address risk

and commit to diversity, inclusion and equity as well as the history of offshore disasters such as the Piper Alpha explosion in the North Sea in 1988¹ and Deepwater Horizon oil spillage in the Gulf of Mexico in 2010² are fueling the demand for legislation to comprehensively deal with emerging trends in an effort to protect nature and maximize profit concurrently.

The need for the petroleum industry worldwide to remain a viable and credible source of energy in a complex mix of alternatives has propelled stakeholders to make changes to uphold society's growing expectations. Players and stakeholders in more developed petroleum jurisdictions such as the North Sea Transition Authority (formerly Oil and Gas Authority) in the United Kingdom, Norwegian Standard Organisation (NORSOK Standards) in Norway and International Organisation for Standardisation (ISO), which is more accepted globally, have made progress to meet modern benchmarks.

Developing countries involved in petroleum production and export such as Nigeria, where FPSO Trinity Spirit was engulfed in flames at a time when ten crew members were on board in February 2022³, have overhauled their legislation by enacting new laws such as the Petroleum Act of 2021 to bring the nation at par with current global standards.

Consistent with global practices, regulators and stakeholders in Ghana have taken steps. The Government of Ghana (GoG) has set up the Ghana Carbon Registry⁴,

¹ In 1988, explosions on the Piper Alpha oil platform in the British North Sea killed 167 people.
<https://safety4sea.com/cm-piper-alpha-the-worlds-deadliest-offshore-oil-disaster/>

² In 2010, oil spill on British Petroleum's Deepwater Horizon rig lasted for 87 days and caused harm to the marine environment <https://www.nationalgeographic.com/animals/article/how-is-wildlife-doing-now-ten-years-after-the-deepwater-horizon>

³ <https://www.nsenergybusiness.com/news/fps0-explodes-offshore-nigeria-with-10-people-onboard/>

⁴ <https://gcr.epa.gov.gh/about-us/>

which is a voluntary registry established online to serve as a database for collecting, verifying, and tracking emissions data from emissions reduction efforts and transactions at the project, programme, corporate or organizational levels. In 2022, the Ghana Stock Exchange⁵ launched a guidance manual for disclosures on ESG reporting for listed companies. In 2019, the Bank of Ghana (BOG) issued the Ghana Sustainable Banking Principles (SBPs)⁶ to enable banks to respond to emerging megatrend issues such as socially responsible stewardship, environment and climate change. The central bank, BOG, views oil and gas as one of the five sectors that are among the most critically sensitive to the environmental and social standards.

The ripple effect of the global factors on national regulators such as the Bank of Ghana must inform the stakeholders in the petroleum industry including the Petroleum Commission ("Commission") to take another look at laws regulating the oil and gas sector. Players in the oil and gas industry must critically assess the legal framework governing petroleum activities in order to meet the present needs of society without compromising the ability of future generations to meet their own needs. This paper will discuss some sweeping legislative interventions necessary to make the Petroleum (Exploration and Production) (Health Safety and Environment) Regulations, 2017 (L.I. 2258) more effective and provide helpful recommendations.

2. The necessity for an enhanced purpose and application of Petroleum (Exploration and Production) (Health Safety and Environment) Regulations, 2017 (L.I. 2258)

⁵ <https://gse.com.gh/wp-content/uploads/2022/11/GSE-ESG-DISCLOSURES-GUIDANCE-MANUAL-1.pdf>

⁶ <https://www.bog.gov.gh/wp-content/uploads/2019/12/Ghana-Sustainable-Banking-Principles-and-Guidelines-Book-1.pdf> <https://www.bog.gov.gh/wp-content/uploads/2019/12/Ghana-Sustainable-Banking-Principles-and-Guidelines-Book-1.pdf>

The purpose of the L.I. 2258 is *to (a) prevent the adverse effects of petroleum activities on health, safety and the environment; (b) provide the minimum health, safety and environment requirements for contractors, sub-contractors, licensees, Ghana National Petroleum Corporation (“the Corporation”) and any other person engaged in a petroleum activity; (c) promote high standards for health, safety and the environment in carrying out a petroleum activity; (d) ensure systematic implementation of measures to comply with requirements and achieve set goals in applicable working environment and safety standards; and (e) contribute to the development and improvement of health, safety and environmental standards.*

The approach to the review of the regulations in a changing environment must take into consideration the following:

- (i) provide for uncovered areas within the industry operations;
- (ii) update standards that may no longer be applicable;
- (iii) update unclear areas; and
- (iv) remove duplications in the law.

(i) Provide for uncovered areas within the industry operations:

L.I. 2258, having been implemented since 2017, has gaps that need to be addressed to make it more robust for its purpose to address Health, Safety, and Environmental matters in a sustainable manner. In particular, the review must cover additional environmental issues such as threshold for reporting of incidents, near

misses⁷, classification of incidents, threshold for loss of primary containments, decommissioning, pipelines, treatment of produced water, drilling, and completion fluids, amongst others.

(ii) Update standards that may no longer be applicable:

Research on L.I.2258 shows that the law maker was informed by International Organisation for Standardization (ISO), Norwegian Standard Organisation (i.e., Norsok standards) and Oil & Gas Authority (OGA standards) in United Kingdom as of 2017. For instance, the regulations on decommission under L.I.2258 are based on OGA standards while regulations 17 on Materials, 18 on Installation System and Equipment, 27 on Production Facility are centered around ISO and Norsok standards.

Several of these standards adopted in 2017 that influenced L.I.2258 have been replaced or amended. For instance, the International Organisation for Standardization (ISO) 18001 has been replaced by ISO 45001. The DS-001 has been amended by Norsok. In other words, some provisions on adequate health, safety, and environment under L.I.2258 may no longer be applicable in the petroleum industry. An amended or new regulation must take these and other updated standards into consideration and customize same for Ghana.

(iii) Update unclear areas:

⁷ Regulation 180 of L.I.2258 provides that a “near miss” means an occurrence which has a potential to cause loss of human life, personal injury, damage to the environment or loss of assets and reputation.

a. **Submission of Health and Safety Plan and Safety Case:**

Requirements for submission of Health and Safety Plan and Safety Case pursuant to Regulations 8 and 10 respectively are unclear under L.I.2258. A Safety Case is a document submitted to a regulatory authority to demonstrate the identification and migration of all known risk in relation to the safe delivery of an upstream petroleum project. The upstream petroleum project may be a Floating Production Storage and Offloading (FPSO), Drilling Rig or Decommission Project.

In times past, concerns have been raised about whether the submission of a safety case⁸ relates to petroleum facilities, whereas a Health and Safety Plan relates to petroleum projects, or whether both need to be submitted during petroleum activities.

The provision for Health and Safety Plan and Safety Case in L.I. 2258 are as follows:

Health and Safety Plan

8. (1) A contractor, sub-contractor, licensee, the Corporation, or any other person engaged in a petroleum activity shall

(a) have a health and safety plan that is adapted to the scope of the petroleum activity; and

⁸ Regulation 180 of L.I.2258 provides that a “safety case” means a document produced by the operator of a facility which identifies the hazards and risks, describes how the risks are controlled and the safety management system in place to ensure the controls are effectively and consistently applied.

(b) submit the health and safety plan to the Commission not later than three months before the commencement of activity in accordance with sub regulation (2) of regulation 171.

(2) The health and Safety plan shall stipulate and further develop objectives and strategies to improve health and safety in accordance with technological developments, applicable laws, and best international practices.

Regulation 10 – Safety Case

10. (1) A contractor, sub-contractor, licensee, the Corporation, or any other person engaged in a petroleum activity shall prepare and submit to the Commission, a safety case not later than six months before the commencement of operation or decommissioning of a petroleum facility.

b. Recommendation: Expansion of Regulatory gates for Approvals

It is recommended that there is an expansion of Regulatory gates⁹ for approvals within the context of L.I. 2258. A regulatory gate must consider safety, health, environment, and economic impacts to grant such approvals or otherwise. E.g., Decommissioning Safety Case Submission and Decommissioning Phased Approvals are unclear in L.I.2258.

Further, approvals from regulatory bodies provide the greenlight for the following project stages: construction, installation, start-up, operation and most recently decommissioning, however, the lacuna with L.I. 2258 is the lack of clarity on these key stages.

⁹ A regulatory gate is a phase of an exploration and production (E&P) project where the responsible Regulatory Authority must approve before operations can continue.

A reviewed L.I. 2258 should therefore provide clear timelines and other considerations for these stage gate approvals to give comfort to operators, contractors, sub-contractors, the Corporation, and any other person engaged in petroleum activities.

(iv) Remove duplications in law: proposed merger of some sections the regulations:

Regulation 9, which deals with risk reduction principles and regulations 155, which deals with general requirements for analysis, are duplicated statements.

A reviewed L.I. 2258 must therefore consider maintaining only one of the provisions. The conduct of a risk assessment and the implementation of basic risk reduction principles are co-dependent as a function and should be put together.

3. Regulatory overlap

The clauses on the establishment of Safety Zones assigned to the Commission under L.I.2258 have also been assigned to other state agencies such as Ghana Maritime Authority by law.

Regulation 1 of the Ghana Shipping (Protection of Offshore Operations and Assets) of 2012 (L.I.2010) grants the Minister of State responsible for Transport the power to ensure the establishment of safety zones.

Similarly, Regulations 161 to 165 of L.I.2258 which deal with the establishment, monitoring and other matters related to safety zones also grants power to the Commission.

Regulations 161 (1) of L.I.2258 states that a contractor, sub-contractor, licensee, the Corporation, or any other person engaged in a petroleum activity shall apply to the Petroleum Commission to establish a safety zone for a petroleum facility or installation at a designated location. Further, Regulation 161 (4) of L.I.2258 provides that the Petroleum Commission may, in consultation with relevant agencies and authorities, establish a safety zone around a subsea facility.

Considering the fact that the L.I.2258 was made by the Minister responsible for Petroleum while L.I. 2010 was enacted by the Minister responsible for Transport, the establishment of safety zones in practice based on the consultation between the relevant agencies and authorities of state such as the Ghana Marine Authority creates bottlenecks, conflicting jurisdictions and occasional turf wars within the regulatory space.

It will be useful if all matters related to Safe Zones including the establishment and monitoring are consigned either entirely to the Ghana Maritime Authority and the Minister of State responsible for Transportation or the Commission and the Minister responsible for Petroleum.

4. Conclusion

An amendment to L.I.2258 is vital to provide clarity for contractors, sub-contractors, licensees, the Corporation, or any other person engaged in a petroleum activity on the expectations for HSE matters in Ghana's petroleum industry.

In the interim, it will be helpful for the Commission to publish some guidelines to provide clarity on how to comply with the requirements of the Regulation L.I.2258.

These guidelines can take inspiration from best practice as laid out by ISO which is more globally accepted or the NORSOK Standards in Norway.

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