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LAW NO. 99/013 OF 22 DECEMBER 1999 TO INSTITUTE THE PETROLEUM CODE (EXCERPT)

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Article 82:

The holder shall carry out petroleum operations in such a manner as to ensure, under all circumstances, the conservation of natural resources, especially hydrocarbon deposits and due protection of essential features of the environment. For this purpose, the holder shall take all necessary measures intended to preserve the safety of persons and property and to protect the environment, natural surroundings and ecosystems.

Article 83:

(1) Where petroleum operations are likely, by reason of their size, nature or impact on the natural surroundings, to interfere with the environment, the holder shall carry out at his own expense, an environmental impact assessment.

Such assessment shall allow evaluation of direct or indirect effects of petroleum operations on the ecological equilibrium of the contract and neighbouring areas, as well as on the conditions and quality of life of the populations and the effects on the environment in general.

(2) Impact assessment shall be part of the file submitted for public inquiry, where such a procedure is required.

(3) A decree shall lay down the modalities for applying the provisions of this article, especially the list of petroleum operations subject to an impact assessment, its content and conditions for making it public.

PART X

ENVIRONMENTAL PROTECTION AND SAFETY MEASURES

Chapter I

GENERAL PROVISIONS

Article 61:

Under the laws and regulations in force and in accordance with the norms and practices generally accepted in the international petroleum industry, the holder shall take the following necessary measures:

- arrange and renew insurance policies covering damages to persons and property resulting from petroleum operations carried out, in accordance with the provisions of Part XIX of this Decree;
- take measures to minimize damage to the environment resulting from petroleum operations in the extraction area;

- set up a rigorous pollution-, accident-prevention and control measures regarding petroleum operations, and work out emergency plans to be adopted in the event of disaster or threat of danger to the environment and safety of persons and property;
- obtain prior authorizations required by the laws and regulations in force and provide the required environmental impact assessments, in accordance with the provisions of Chapter 3 of this Part;
- treat, eliminate and control emissions of toxic substances resulting from petroleum operations, likely to cause damage to persons, property and the environment;
- install a collecting system for waste and used equipment from petroleum operations.

Chapter II

THE HYDROCARBON CONTAMINATION PROTECTION COMMITTEE

Article 62:

- (1) A Hydrocarbon Contamination Protection Committee, hereinafter referred to as the "Protection Committee" is hereby set up.
- (2) The Protection Committee shall be an advisory body whose duty is to assist the Government in applying laws and regulations in force concerning the protection of the environment and securing petroleum operations.
- (3) The organization and functioning of the Protection Committee shall be laid down by regulation.

Article 63:

The holder shall submit to the Ministers in charge of environment and hydrocarbons, a waste management plan based on an integrated pollution control system. The said plan shall cover all stages of the waste treatment process.

Article 64:

The waste covered in the waste management plan referred to in Article 63 above shall include especially:

- drill cuttings;
- sludge of oil, water and any other fluid;
- wastewater and sediments resulting from petroleum operations;
- chemicals, sanitary and drain wastes;
- fumes and other gas emissions of any kind;
- waste classified as dangerous according to the laws and regulations in force especially, and without exhausting the list, flammable, corrosive, reactive, toxic or radioactive waste;
- household waste produced during conduction of petroleum operations; and
- used oils.

Article 65:

The provisions of Articles 63 and 64 above shall be supplemented by a specific instrument.

Article 66:

- (1) When the holder fails to comply with the provisions of Article 61 above resulting in damage to persons, property and / or the environment, they shall take all necessary and adequate measures to immediately remedy the situation.

- (2) If the Minister in charge of hydrocarbons considers these measures insufficient or that they endanger persons and goods or are likely to cause damage to the environment, the Minister in charge of hydrocarbons shall ask the holder to remedy the situation within the deadline. If necessary, the Minister in charge of hydrocarbons shall ask the holder to interrupt all or part of the petroleum operations until the required measures are taken.
- (3) The measures required under paragraph (2) above shall be decided in consultation with the holder taking into account international standards applicable in similar circumstances, as well as the environmental impact assessment conducted under provisions of Chapter 3 of this Part. Once finalized, these measures shall be notified to the holder and revised when the circumstances so require.

Chapter III

ENVIRONMENTAL IMPACT ASSESSMENT

Article 67:

An environmental impact assessment shall be required for major hydrocarbon prospection, research, exploitation and transportation projects, such as work programmes covering several deposits, installation of facilities for exploitation or pipelining. Petroleum operations of limited scope shall require an impact assessment only when they affect particularly sensitive areas whose list shall be established by regulation. However, an environmental impact statement shall be required for such operations.

Article 68:

The environmental impact assessment shall be conducted by the holder of a Petroleum Contract or Authorization or by an expert assigned by the former and approved by the Minister in charge of hydrocarbons.

Article 69:

The environmental impact assessment must include the following minimum information:

- analysis of the initial state of the area covered by the Authorization and its surroundings;
- reasons for choosing the site;
- identification of the environmental impacts and consequential damages resulting from petroleum operations in the area concerned and on its natural and human environment;
- statement of the measures envisaged by the Petroleum Contract Holder to eliminate, compensate for the harmful consequences of petroleum operations on the environment and an estimate of corresponding expenses;
- presentation of other possible solutions and the reasons why, from the point of view of environmental protection, the option or the solution proposed by the Holder was accepted.

Article 70:

The environmental impact assessment shall contain proposals for directives to be followed to minimize damage to the environment and shall cover, especially, depending on the nature of the petroleum operations envisaged, the following aspects:

- storage and handling of hydrocarbons;
- use of explosives;
- camping and work sites;

- treatment of solid and liquid waste;
- archaeological and cultural sites;
- selection of drilling sites;
- stabilization of the site;
- protection of groundwater;
- impact on the marine environment;
- accident prevention plan;
- flaring during testing and on completion of the liquid and gaseous hydrocarbon wells;
- use of waste water;
- abandonment of wells;
- abandonment of deposits and exploitation sites;
- rehabilitation of the site after abandonment; and
- control of noise levels.

Article 71:

- (1) The environmental impact assessment shall be submitted to the competent administrative authority for approval. The competent administrative authority shall provide any comments within 30 (thirty) days of the notification of the environmental impact assessment. After this period, the assessment shall be considered approved.
- (2) If the competent administrative authority provides the comments referred to in paragraph (1) above, the holder of the Petroleum Contract or Authorization shall have 30 (thirty) days to submit his response.
- (3) The competent administrative authority shall examine the Environmental Impact Assessment in collaboration with all relevant public, para-public and administrative bodies that may be interested in the petroleum operations project.

Article 72:

The holder of a Petroleum Contract or Authorization shall make sure:

- his employees and subcontractors have adequate knowledge of environmental protection measures to be taken in accordance with the rules of the art, as well as those provided for in the environmental impact assessment and to be used during the conduct of the petroleum operations;
- where applicable, the contracts he reaches with his subcontractors and which are linked to the petroleum operations, shall involve the measures provided for in the environmental impact assessment.

TITLE XI

DRILLING AND ABANDONMENT PRACTICES

Article 73:

The holder shall ensure that the design of wells and drilling operations, including casings, cementing, spacing and sealing of wells, are done in accordance with the standards and practices in force in the international oil industry, as at when these operations are undertaken.

Article 74:

All wells shall be given a geographical name, a number and geographical coordinates and UTM that shall appear on maps, plans and other documents that the holder shall keep. If the name of a well is changed, the Minister in charge of hydrocarbons shall be informed in writing within 15 (fifteen) days following this modification.

Article 75:

Before starting the drilling of a well on the agreed space or in case of interruption of the said works for more than 6 (six) months, the holder shall provide the information below to the Minister in charge of hydrocarbons 7 (seven) days at the latest before the date for resumption of work:

- the name and number of the well;
- a description of the exact location of the well as well as its geographical coordinates and UTM;
- a detailed technical report of the drilling programme, an estimate of the time required to complete the drilling, the target depth, the equipment used and planned safety measures;
- a summary of geological, geophysical and geochemical data and interpretations governing the holder's proposal for drilling on the proposed site.

Article 76:

- (1) When the drilling of a well on the area under contract is interrupted for more than 30 (thirty) days, the holder shall inform the Minister in charge of hydrocarbons within 5 (five) days after the interruption.
- (2) When the drilling of a well within the area under contract is interrupted for more than 30 (thirty) days and less than six (6) months, the holder shall inform the Minister in charge of hydrocarbons in writing of his intention to resume work at least 48 (forty-eight) hours before the planned resumption date.

Article 77:

- (1) The holder may not drill a well less than 1000m within his area under contract except with the express agreement of the Minister in charge of hydrocarbons.
- (2) No well may be drilled within an area under contract beyond the vertical limits of the said area.

Article 78:

Unless otherwise decided by the Minister in charge of hydrocarbons, the holder shall undertake, when rendering a part of the contract space, or when abandoning a well or when an oil deposit is made necessary, for technical or economic reasons and at the end of a Petroleum Contract, as the case may be to:

- withdraw from the conceded part or from the area under contract, the equipment, installations, structures and pipelines used for the petroleum operations, according to the provisions of a Plan of Abandonment and in accordance with the standards of the International Maritime Organization and practices in the international oil industry
- rehabilitate the site on the area under contract, in accordance with the standards and practices in the international oil industry. To do this, he shall take the necessary measures to prevent damage to human life, property and the environment.

Article 79:

- (1) The holder shall notify the Minister in charge of hydrocarbons at least 24 (twenty-four) hours in advance, of his intention to abandon any well drilled within his area under contract. This notification shall be accompanied by an abandonment programme for the said well.

The Abandonment of Production Wells Programme shall consist of three main phases, namely:

- taking the reservoir off the surface and different production layers
- treating the rings between the casing trains and
- cutting and removing the upper parts of the casing trains.

(2) The holder shall undertake to conduct the abandonment operation so as to:

- control of the flow and escape of hydrocarbons;
- prevent any damage to neighbouring strata;
- isolate permeable strata from each other;
- prevent the possibilities of flows between tanks; and
- prevent contamination of aquifers.

(3) The Minister in charge of hydrocarbons or any organization or public institution mandated for this purpose, may ask the holder to interrupt well abandoning operations, so as to reintroduce a train of probe into the head of the well. Such a request shall be made to the holder by notification of the Minister in charge of hydrocarbons who shall fix the extent of a safety zone around the well. At the end of the operation, the concerned well shall become the property of the State, who shall assume responsibility for it.

Article 80:

The holder shall, at the end of the period mentioned in the preceding article, proceed with the abandonment of the well concerned, subject to the terms and conditions of the Petroleum Contract.

Article 81:

Within a period specified in the Petroleum Contract, the holder shall submit for the approval of the Minister in charge of hydrocarbons, a Plan of Abandonment which confirms the working hypotheses included in the development plan, going by the experience acquired during exploitation of the deposit.

The Abandonment Plan shall make provisions for abandonment funds for a number of years, defined in the Abandonment Plan. The said funds shall be deposited in an account opened under an escrow agreement with a bank approved by the monetary authority. This account is intended to finance abandonment operations and to receive the full provision for abandonment incorporated in compliance with the provisions of the Petroleum Code. The supply schedule, rules and methods of management of this escrow account shall be specified in the Petroleum Contract.