

ANGOLA

PetroleumPetroleumPetroleum Regulations

2009 Petroleum Regulations

Tuesday, 27 January 2009 I Series No 17

DIÁRIO DA REPÚBLICA

OFFICIAL GAZETTE OF THE REPUBLIC OF ANGOLA

Council of Ministers

Decree 1/09:

Approves the Regulations governing Petroleum Operations.

COUNCIL OF MINISTERS

**Decree 1/09
of 27 January**

Article 2(1) of Law 10/04 of 12 November defines petroleum operations as the activities of petroleum prospecting, exploration, appraisal, development and production;

Whereas petroleum operations executed both onshore and offshore need to be made compatible with other activities involving other natural resources exploited in the available areas of the national territory;

As it becomes necessary to lay down rules and procedures that ensure with rigour and objectivity that petroleum operations are carried out in accordance with the principles and fundamental norms contained in Law 10/04 of 12 November;

Pursuant to the combined provisions of Article 112(d) and Article 113, both of the Constitution, the Government decrees as follows:

Article 1 - The regulations governing Petroleum Operations annexed to this decree, and forming an integral part hereof, are approved.

Article 2 - The rules laid down in the regulations now approved are applicable to prospecting and concession licences awarded on the date of their entry into force.

Article 3 - Any queries and lacunae arising in the interpretation and application of this statute will be resolved by the Council of Ministers.

Article 4 - This statute will come into force on its publication date.

Seen and approved by the Council of Ministers at Luanda on 30 July 2008.

The Prime Minister, António Paulo Kassoma.

Promulgated on 27 January 2009.

Its publication is ordered.

The President of the Republic, José Eduardo dos Santos.

REGULATIONS GOVERNING PETROLEUM OPERATIONS

CHAPTER I GENERAL PROVISIONS

ARTICLE 1 (Object)

This statute defines and lays down the conditions and procedures to be complied with in petroleum operations in accordance with Law 10/04 of 12 November.

ARTICLE 2 (Scope)

1. These regulations apply to petroleum operations executed onshore and offshore, according to the terms provided in Law 10/04 of 12 November.
2. These regulations are not applicable to the activities of crude oil refining, or petroleum storage, transport, distribution or marketing.

ARTICLE 3 (Definitions)

1. For the purpose of these regulations, and except as otherwise expressly indicated in the text itself, the words and expressions used herein in the singular apply equally in the plural and vice versa, and have the following meanings:

- a) "Shallow waters" - zone situated between the coastline and the 200 metre bathymetric contour;
- b) "Deep waters" - zone situated between the 200 and 1500 metre bathymetric contours;
- c) "Ultra-deep waters" - zone situated beyond the 1500 metre bathymetric contour;
- d) "Calendar year" - a period of 12 consecutive months according to the Gregorian calendar commencing on 1 January and ending on 31 December;
- e) "Concession area" - area in which the national concessionaire and its associates are authorised to carry out petroleum operations;
- f) "Licence area" - area in which a licence holder is authorised to carry out prospecting;

- g) "Block" - part of the sedimentary basin, formed by a vertical prism of indeterminate depth with a polygonal surface defined by the geographical coordinates of its vertices, where petroleum operations are carried out;
- h) "Calibration" - set of operations that establish, on specified conditions, the ratio between the values of magnitude indicated by a measuring instrument or a measuring system, or values represented by a measurement effected on a reference material and the corresponding values made by standards;
- i) "Meteorological control" - set of operations intended to provide a public guarantee for measuring instruments;
- j) "Concession" - act of the Government awarding mineral rights;
- k) "Effective date" - the first day of the month following the month in which the contract is signed between the National Concessionaire and its associates;
- l) "Joint development and production" - the coordinated development, production and abandonment of deposits of hydrocarbons that are in close proximity, but not in communication of hydrocarbons and located in two or more concession areas;
- m) "Entity" - individual or corporate body, association, organisation;
- n) "Maximum admissible errors" - extreme values of the errors admitted by the specifications and regulations, relating to a given measuring instrument (equipment);
- o) "Fault" - event in which the performance of the measuring system does not meet the requirements of these regulations or the applicable standards;
- p) "Presumed fault" - variation of the measured volumes which does not correspond to the variations in the operating conditions of the petroleum and natural gas installations;
- q) "Natural gas" - mixture consisting essentially of methane and other hydrocarbons that are found in a petroleum deposit in a gaseous state or pass to this state when produced in normal conditions of pressure and temperature;
- r) "Measuring instrument" - device used individually or jointly with other equipment destined for taking a measurement;
- s) "Installations" - infrastructures or equipment installed with a view to the execution of petroleum operations;
- t) "Deposit" - one or more reservoirs of petroleum, adjacent or overlying, confined to a single geological structure and/or stratigraphic feature, susceptible of being commercially exploited;
- u) "Law 10/04 of 12 November" - the Petroleum Activities Law;
- v) "Fiscal measurement" - measurement of the volume of inspected production effected at a production measurement point;

- x) "Fiscal meter" - meter used for the fiscal measurement of the volume of production of one or more fields;
- w) "Month" - a calendar month according to the Gregorian calendar;
- y) "Crude oil" - a mixture of liquid hydrocarbons from any petroleum concession that is in the liquid state at the well head or in the separator in¹ conditions of pressure and temperature including distillates and condensates, and also the liquids extracted from natural gas;
- z) "Production" - set of activities intended to extract petroleum, in particular the functioning, assistance, maintenance and repair of completed wells, and also equipment, pipes, systems, installations and yards concluded during the development, including all activities related with the planning, programming, control, measurement, testing and outflow, collection, treatment, storage and shipment of petroleum, to the designated places of export or lifting and also the operations of abandonment of the installations and the petroleum deposits and related activities;
- aa) "Traceability" - property of the result of a measurement or value of a standard being able to be related to specified references, generally national and international standards, through an uninterrupted chain of comparisons;
- bb) "Measurement report" - document reporting the values measured, the correction factors and the volume determined in a measurement period;
- cc) "Oil and gas pipelines" - the petroleum transport equipment provided in Article 72 of Law 10/04 of 12 November, including valve stations, pumping stations, compression stations and associated installations;
- dd) "Expert" - the independent and impartial individual or entity, internationally recognised in the petroleum industry, a qualified specialist in the matters on which he is called upon to give an opinion, designated by the Relevant Ministry at the proposal of the National Concessionaire and its associates and subject to the obligation of confidentiality provided by law;
- ee) "Abandonment plan" - plan for the closure of the petroleum operations, pursuant to Article 75 of Law 10/04 of 12 November;
- ff) "Transport" - the set of activities related with the transport of petroleum through a system of oil or gas pipelines from the production installations in an oilfield to the point of delivery to the purchaser. It does not include flow lines, or distribution lines of crude oil, natural gas or petroleum products;
- gg) "Units of measurement" - specific magnitudes, defined and adopted by convention, with which other magnitudes of the same nature are compared in order to express their magnitude in relation to that magnitude;
- hh) "Unitisation" - petroleum operations in a deposit situated in more than one concession area.

2. The other words and expressions present in the decree, not listed in the previous item, will have the same scope and meaning attributed to them by Law 10/04 of 12 November.

Translators note:

¹There would appear to a word missing at this point - Translator.

ARTICLE 4 (Superimposability and incompatibility of rights)

1. If there is a significant discovery of natural resources other than petroleum in a concession area, and there is incompatibility in pursuing the performance of both activities, the Council of Ministers, at the proposal of the Relevant Ministry and other sectors involved, must decide which of them must be suspended and on what terms.

2. The decision must take account of the nature of the discovery, the investment made, the duration and volume of the activities, and also their economic and social impact in relation to the petroleum operations.

3. Any entity whose activities are suspended in accordance with section 1 of this article may request an extension of the term of the concession period corresponding to the time of the interruption.

4. If the interruption affects only part of the activities of the concession area, the Relevant Ministry may fix a shorter period than that requested, decide not to award that period or grant it for the affected area only.

5. If the interruption of the activities in accordance with section 3 of this article should extend beyond the term, the concession may be terminated by agreement between the State and the National Concessionaire.

6. The Relevant Ministry will determine the amount of fair compensation which the affected party in the concession area must pay to the entities holding the rights passed over to cover the losses suffered for the time of interruption, after consultation with the National Concessionaire and its associates.

ARTICLE 5 (Definition of concession areas)

1. For the purpose of the petroleum operations, available areas within the boundaries of the national territory, both onshore and offshore, are divided into blocks bounded by geographical coordinates.

2. Concession area may consist of one or more blocks or parts of blocks, the dimensions of which must be defined in the concession statute.

66ARTICLE 6 (Definition of the terms of concession)

1. The terms of concession and their different periods and phases are fixed in the concession decree in accordance with Article 48(2)(c) of Law 10/04, of 12 November.

2. Without prejudice to the provisions of Article 22(6) of these regulations, the production period commences from the date of notification by the Relevant Ministry to the National Concessionaire and its associates or from the receipt and acceptance of the written report of the commercial discovery according to Article 62(2) of Law 10/04 of 12 November.

3. The notification will be issued within eight days from gaining knowledge of the information referred to in the previous item.
4. It is incumbent upon the Relevant Ministry to lay down the conditions on which an extension of the production period may be granted.

ARTICLE 7 (Extension of the concession periods)

Without prejudice to the provisions of Article 28 of these regulations, applications for an exceptional extension of each concession period will be submitted to the Relevant Ministry minimum of six months before they expire.

CHAPTER II PROSPECTING LICENCE

ARTICLE 88 (Content of the work programme)

Unless provided otherwise, a prospecting licence issued in accordance with Article 33 of Law 10/04 of 12 November makes it possible to perform the following activities in particular:

- a) magnetic surveys;
- b) gravimetric surveys;
- c) resistivity surveys;
- d) seismic surveys;
- e) measurements of thermal flow;
- f) radiometric measurements;
- g) geochemical surveys;
- h) collection of samples from the ground of the area;
- i) magneto-telluric surveys.

ARTICLE 9 (Extension of prospecting licences)

Without prejudice to the provisions of Article 28 of these regulations, applications for exceptional extensions of prospecting licences must be submitted to the Relevant Ministry within a minimum time of six months.²

Translator note:

² The context would suggest that 'at least six months in advance' is meant - Translator.

ARTICLE 10 (Duration of the licence and delivery of information)

1. The maximum term of the licence is three years.

2. During such time as the prospecting work lasts, the licensee must submit to the Relevant Ministry quarterly detailed information on the progress of the activities being carried out.
3. After the licence ends, the licensee must submit, within six months from the cessation of the licence, the data, reports and results of the activities carried out to the Relevant Ministry for consideration.
4. The Relevant Ministry may grant a longer term if it requests additional work, including data interpretation.

1111ARTICLE 11 (Licence fee)

1. The fee for the obtainment of the licence is the Kwanza equivalent of USD 10,000.00, payable in accordance with the instructions of the Relevant Ministry.
 2. 60% of the licence fee constitutes State revenue, and 40% revenue of the Relevant Ministry.
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CHAPTER III PETROLEUM CONCESSION

ARTICLE 12 (Associates of the National Concessionaire)

The rules and procedures for the public tender in accordance with the provisions of Article 46 of Law 10/04 of 12 November are regulated in Decree 48/06 of 1 September.

1313ARTICLE 13 (Direct Negotiation)

1. The time limit for the process of direct negotiation in accordance with Article 47(3) of Law 10/04 of 12 November is 60 days, and may be extended by the Relevant Ministry upon a reasoned request by the National Concessionaire.
2. The process of direct negotiation commences on the date provided in Article 44(5) of Law 10/04 of 12 November, the Petroleum Activities Law.

ARTICLE 14 (Contract between the National Concessionaire and its associates)

When the association between the National Concessionaire and national or foreign entities takes the form of a contract in accordance with Article 14 of Law 10/04 of 12 November, this must contain at least the following items:

- a) identification of the contract area;
- b) compulsory programme of work;
- c) duration of the time limit for appraisal and definition of the conditions of the extension and/or suspension of the counting of the various contractual time limits;
- d) ownership and confidentiality of the elements of information;
- e) lifting and disposal of the petroleum;

- f) transfers of the assets;
- g) the operator's obligations;
- h) rules of the operations;
- i) costs, expenses and their recovery;
- j) petroleum sharing;
- k) independent risk;
- l) commission of operations;
- m) financial guarantee;
- n) business guarantee;
- o) financial consideration offered (bonuses).

CHAPTER IV PETROLEUM OPERATIONS

SECTION I Prospecting, Exploration and Appraisal

1515ARTICLE 15 (Compulsory programme of work)

1. The compulsory programme of work referred to in Article 30(1)(b) of Law 10/04 of 12 November consists of the seismic survey and the drilling of a particular number of exploration and appraisal wells.
2. The content and the time limits for the fulfilment of the work obligation are fixed in the contractual title.
3. The Relevant Ministry, at the operator's request and after consultation with the National Concessionaire, may authorise changes to the compulsory programme of work.

ARTICLE 16 (Presentation and consideration of annual plans of work)

1. The annual plan of work referred to in Article 58 of Law 10/04 of 12 November must in the first year be presented by the National Concessionaire to the Relevant Ministry within 60 days from the effective date. If the concession is granted during the second half of the year, the annual plan must include the work to be executed in the remaining part of that year and in the following year.
2. In any of the cases referred to in the previous item, the annual plan of work, in subsequent years, must be presented by the end of October in the year preceding the one to which it relates, at the latest.
3. The plan referred to in Article 58(5) of Law 10/04 of 12 November must be submitted to the Relevant Ministry within 15 days from the date of notification of refusal, and the latter must consider it and decide within an equal period of time.

ARTICLE 17 (Land in the private ownership of the State)

1. The annual plan referred to in the previous article must include seismic surveys and the drilling of wells and contain in particular the following items of information:

- a) data relating to the area to be prospected and explored with an indication of the position of the installations and equipment;
- b) data relating to seismic and other surveys, and well drilling;
- c) time schedule of activities;
- d) methods of prospecting and exploration;
- e) equipment to be used, movement of equipment, ports and airports of unloading intended to be used as support bases for prospecting and exploration;
- f) the form in which the results will be made available;
- g) environmental impact study according to current legislation.

2. In the appraisal stage, the plan referred to in the previous item must also include:

- a) objectives of the appraisal strategy;
- b) geological context in which the discovery is inserted (include location map);
- c) geophysical survey programs;
- d) number and type of wells to be drilled;
- e) forecast of necessary investment.

3. In addition to the items of information referred to in the previous items, the National Concessionaire and its associates may add other data they consider to be necessary for ascertaining the area's geological potential.

ARTICLE 18 (Presentation of exploration data)

1. Within six months from the end of the exploration stage the National Concessionaire must submit the data, reports and results of the activities carried out to the Relevant Ministry for consideration.

2. The Relevant Ministry may grant a longer time if it requests additional work to that specified in the previous section.

3. The operator through the National Concessionaire must submit daily geology and well drilling reports to the Relevant Ministry.

4. The operator through the National Concessionaire must present the final report to the Relevant Ministry 60 days after the completion of drilling of the well.

ARTICLE 19 (Declaration of commercial discovery)

1. The operator through the National Concessionaire must submit to the Relevant Ministry a deposit appraisal report within 45 days from the date of the declaration of the commercial discovery.

2. The appraisal report must contain in particular the following items:

- a) geophysical, geochemical and geological data;
- b) thicknesses and length of the productive layers;
- c) petrophysical properties of petroleum containing formations;
- d) pressure, volume and temperature (PVT) data;
- e) productivity index of the wells tested;
- f) characteristics and quality of the petroleum found;
- g) estimates of reserves;
- h) listing of other characteristics and major properties of existing deposits and fluids.

3. The Relevant Ministry may request additional information and appraisals.

ARTICLE 20 (Declaration of non-commercial status)

1. The operator through the National Concessionaire must notify the Relevant Ministry if it considers that the petroleum deposits covered by the discovery are not suitable for economical development.

2. If the National Concessionaire and its associates understand however that a particular non-commercial discovery may be commercially developed jointly with another deposit or deposits, the National Concessionaire must inform the Relevant Ministry of its intention to carry out work with a view to joint development, and also of the foreseeable nature and duration of this work.

2121ARTICLE 21 (Demarcation of the development area)

1. When the commercial discovery of a deposit is declared, the National Concessionaire and its associates must proceed with its preliminary demarcation by means of a map that defines the development area according to the deposits effectively appraised.

2. The alteration of the map with the development area finally fixed, in accordance with Article 66(1) of Law 10/04 of 12 November, is the responsibility of the Relevant Ministry, by means of a duly reasoned opinion of the National Concessionaire.

3. A finally fixed development area may only be altered with prior approval from the Relevant Ministry if:

- a) a new deposit or deposits are discovered under or overlying the deposit(s) included in the area already demarcated;
- b) the Relevant Ministry, on the basis of technical and/or economic reasons, authorises two separate deposits to be developed jointly in accordance with the previous article.

SECTION II

Development and Production

2222ARTICLE 22 (General plan of development and production)

1. The general plan of development and production to be submitted by the National Concessionaire to the Relevant Ministry must contain the following items in particular:

- a) technical report of characterisation and description of the accumulation of crude oil, specifying in particular chrono-stratigraphy, depositional environment, permo-porous characteristics and fluid saturation;
- b) proposal of final demarcation of the development area, using an appropriate scale;
- c) presentation of the various technical solutions analysed, including where applicable a description of the successive development phases, and also the possibilities of utilisation, both existing and planned, and/or joint development with neighbouring oil fields;
- d) evaluation of the economic parameters that justify the choice of the proposed type of development;
- e) programme of development work with a description of the installations and equipment for drilling, production and injection, including the number and type of wells to be drilled;
- f) description of the installations provided for the transport, storage, measurement and export of the petroleum produced;
- g) information on the operation and maintenance of the installations concerned;
- h) forecast investment plans and their financial cover, itemising the parts relating to the wells, production units, systems for the storage and outflow of production;
- i) forecast of the date of commencement of commercial production, production profiles and possible uncertainty factors;
- j) environmental impact study with emphasis on technical solutions, to prevent, minimise and combat pollution;
- k) aspects of safety, health and hygiene at work to be implemented;
- l) plan for the utilisation of associated natural gas;
- m) forecast plan of abandonment of the installations at the end of the lifetime of the oil field, and also the provision of necessary funds for its deactivation;
- n) information on authorisations obtained and an indication of those for which applications are pending;
- o) plan of utilisation of national goods and services;

p) other elements required by current legislation.

2. The Relevant Ministry may request studies of alternative solutions.

3. If any of the items referred to in section 1 are missing, the Relevant Ministry must notify the National Concessionaire to regularise and complete the missing items within a 30-day period.

4. If the development and production plan, previously presented by the operator to the National Concessionaire, cannot be presented to the Relevant Ministry within the time specified in Article 63 of Law 10/04 of 12 November, through not having been approved by the National Concessionaire, the Relevant Ministry will take that factor into consideration and will grant, under section (c) of the same article, the additional period necessary to obtain such approval.

5. The revision of a general plan of development and production, that becomes necessary by virtue of a redefinition of the corresponding development area, under the terms provided in item 3 of the previous article or determined for any other justified reason, in particular as a result of developments in knowledge about the deposit or deposits in question, must be submitted to the Relevant Ministry.

6. In the cases provided in sections 2 and 4, and also whenever there is a delay in the process of approval of the development plan, in particular in the cases where the Relevant Ministry requests any additional information or studies, the production period, and also the time for the development of the discovery fixed in the contract will be increased by the time between the ninetieth day following the date of the first sending of the plan to the Relevant Ministry by the National Concessionaire and the date of final approval of the plan by the Relevant Ministry.

7. The production period and the time for development of the discoveries or unified deposits, under the terms provided in section 3 of the previous article, start to run from the date of the last declaration of the discovery in question.

ARTICLE 23 (Annual production plans)

1. The annual production plan, in addition to the oil and natural production forecasts, must include:

- a) the forecast of flaring and loss of natural gas;
- b) the forecast of injection of special fluids into the deposits for the purpose of enhanced recovery;
- c) the forecast of production of solid waste and its management;
- d) additional information.

2. The period within which the Relevant Ministry must approve the production plans referred to in Article 70(1) of Law 10/04 of 12 November is 30 days from the date of receipt.

ARTICLE 24 (Regime governing the use and recovery of deposits)

1. The National Concessionaire must submit to the Relevant Ministry, by 30 December each year, a report containing production forecasts for crude oil, natural gas and condensates for the following year.

2. The report to be presented must also itemise the items mentioned below:

- a) proven reserves;
 - i) developed;
 - ii) undeveloped;
- b) probable reserves;
- c) possible reserves;
- d) accumulated production (oil and gas);
- e) accumulated injection of natural gas;
- f) stock of natural gas;
- g) volume withdrawn from the stock of natural gas.

3. The volumes mentioned in subsection g) of the previous section must be itemised by deposits existing in each field described in the respective development plan.

2525ARTICLE 25 (Unitisation, joint development and production)

1. Joint development and production, according to Article 64 of Law 10/04 of 12 November is intended on the one hand to guarantee the effective management of petroleum resources, prevent economic and physical wear and on the other hand to guarantee and protect the interests of the State and the parties involved.

2. Following the declaration of the commercial discovery of a deposit, the characteristics of which cover one of the situations referred to in Article 64(1) of Law 10/04 of 12 November, the National Concessionaire, must inform the Relevant Ministry of this fact within 30 days and commence discussions with the associates involved for the purpose of reaching an agreement on joint development and production.

3. In the case where a process of unitisation or joint development affects all or part of an obligation which the National Concessionaire and/or its associates must fulfil or a right which they may exercise within a particular time limit, in accordance with the contract, this time limit and the respective contractual period must be extended by a period corresponding to the period of time comprised between the date of the information given by the National Concessionaire to the Relevant Ministry referred to in the previous section and the date on which the respective development and production plan is mutually agreed and approved by the Relevant Ministry, or the date of notification to the National Concessionaire and its associates of the plan prepared by the expert, where applicable.

4. The agreement referred to in the previous section, accompanied by the joint development and production plan, must be presented to the Relevant Ministry for approval within six months or a longer period where this is granted by this entity, counted from the date of receipt of the information referred to in section 2.

- 5.** If the parties involved do not present the joint development and production plan within the time limit stipulated in the contract, the Relevant Ministry may engage an independent expert not only to prepare the said plan, but also to advise on the work referred to in the following section.
- 6.** In the case where the Relevant Ministry does not agree with the terms and conditions laid down in the agreement or with the content of the plan, it may request their revision within 45 days, and also make any changes it considers will safeguard the interests of the State.
- 7.** The expert's opinion must state the reasons on which it is based and will be final and binding upon the parties involved.
- 8.** The costs of engaging the expert will be met by the National Concessionaire and its associates in the proportion determined by the Relevant Ministry.
- 9.** The agreement mentioned in section 3 of this article must contain the following items among others:
 - a) participatory interests;
 - b) map of the unitised area or of joint development and production;
 - c) procedures for evaluating reserves, their distribution and re-evaluation;
 - d) designation of the operator of the unitised area or of joint development and production;
 - e) effective date of the unitisation or joint development and production agreement.
- 10.** The joint development and production plan must contain the same elements of the general plan of development and production referred to in Article 23 of this statute.
- 11.** Any changes to the agreement and plan of joint development and production will be subject to approval by the Relevant Ministry.
- 12.** The National Concessionaire must inform the Relevant Ministry within 30 days from the date of the declaration of the commercial discovery, of the existence of a deposit of petroleum which extends beyond the Angolan border or the line of delimitation of the continental shelf of Angola and bordering countries.
- 13.** The Relevant Ministry must commence negotiations with the governments of neighbouring countries with jurisdiction over the adjacent areas jointly with the National Concessionaire and its associates, for the purpose of reaching an acceptable agreement to all parties for the development and production of the said deposit.
- 14.** The agreement mentioned in the previous item must be approved by the governments of the countries involved.
- 15.** Production in the deposit mentioned in section 12 may not commence before the approval mentioned in the previous section.
- 16.** The agreement must contain the following items:

- a) applicable legislation and competent court;
- b) licensing and approved agreements entered into between the concession holders, such as the agreement on joint operations, including agreements on reserves, the distribution of reserves and their necessary revaluations and accounting agreements;
- c) approval of the plans such as the development plan, annual plans of work and abandonment plan;
- d) approval of the joint operator;
- e) standardised management system for health, safety and the environment;
- f) emergency plans;
- g) measurement of production;
- h) access to information on installations, oil and gas pipelines and inspection of equipment and installations;
- i) transport;
- j) end of the activities;
- k) abandonment;
- l) other information of interest to the parties involved.

17. In the case where the process of international unitisation referred to in the previous sections affects, wholly or partly, an obligation which the National Concessionaire and/or its associates must fulfil or a right that they may exercise within a particular time limit, under the terms of the contract, this time limit and the respective contractual period must be extended by a period corresponding to the time comprised between the date of the information provided by the National Concessionaire to the Relevant Ministry referred to in section 11 and the date on which the unitisation agreement and its development and production agreement are mutually agreed and approved by the respective governments.

2626ARTICLE 26 (Abandonment or continuation of the petroleum operations)

The decision to abandon or continue the petroleum operations of any installation must be based on a general evaluation of the technical, economic, environmental and safety aspects, and also the possibility of its use for other activities in the area in question, such as fishing, agriculture and industry.

ARTICLE 27 (Plan of abandonment of the petroleum operations)

1. The plan of abandonment or continuation of the petroleum operations in accordance with Article 75 of Law 10/04 of 12 November must take into account:

- a) the possibility of continuation of the operations;

- b) the abandonment of the installations;
- c) the environmental and socio-economic impact study.

2. The plan of abandonment of the installations must contain, among others, a description of the following items:

- a) history of the field;
- b) installation, including the location, depth, and type of material;
- c) production and deposit records;
- d) technical, economic, environmental and safety aspects of the abandonment options;
- e) impact of the abandonment options on other users of the sea and land, especially in the areas of fishing, shipping, agriculture and industry;
- f) recommended abandonment solution, including the time horizon for its implementation;
- g) time schedule of the abandonment activities;
- h) inventory of the chemical materials found in the installations and plans for their removal;
- i) other relevant aspects for the choice of the abandonment solution.

3. The time limit for consideration and decision by the Relevant Ministry is 90 days following presentation of the abandonment plan by the National Concessionaire and its associates.

4. If the Relevant Ministry does not agree with the plan presented, it may request its revision within 45 days and also introduce any changes it deems necessary.

5. The Relevant Ministry must regulate the technical procedures to be followed in relation to the activity of well abandonment.

ARTICLE 28 (Continuation of petroleum operations)

1. [If] it is decided to continue the petroleum operations at the end of the Concession, the National Concessionaire and its associates may request the Government for an extension of the production period in accordance with the provisions of Article 12(3) of Law 10/04 of 12 November.

2. In other circumstances the area under abandonment will be considered to be free and to this extent subject to a public tender according to law.

ARTICLE 29 (Safety zones)

1. In offshore petroleum operations, a safety zone must be established around all fixed, moving and floating installations, the extent of which will be 500 m, measured from the outermost points of each installation.

2. The Relevant Ministry may determine a safety zone with different dimensions from that provided in the previous section.
 3. Ships, aircraft and other means of transport and equipment may only enter a safety zone determined in accordance with section 1 with authorisation from the block operator.
 4. Onshore the perimeter of safety zones around installations must allow the full execution of the petroleum operations without any restriction. However, the Relevant Ministry must fix the safety perimeter to be complied with in each installation on a case-by-case basis.
 5. Without prejudice to inspection by the competent authorities, access to the safety zones determined in sections 1 and 3 will be permitted only with authorisation from the block operator.
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CHAPTER V LIFTING OF CRUDE OIL

ARTICLE 30 (Entitlement to the petroleum produced)

Each associate of the National Concessionaire may freely dispose of the oil to which it is entitled according to law.

ARTICLE 31 (Procedures and rules of operation)

1. 12 months before the initial export of crude oil from each development area and before the exportation of the first crude oil, the National Concessionaire must present to the operator proposals of procedures and rules of operation that govern the programming, storage and lifting of crude oil and any other type of oil produced in a particular development area.
2. The procedures and rules comprise the necessary elements for effective and equitable operation, including in particular:
 - a) the rights and obligations of the parties;
 - b) the availability and allocation of crude oil;
 - c) designation of shipments;
 - d) programme of agreed liftings;
 - e) adjustments to the agreed programme of liftings;
 - f) designation of oil tankers;
 - g) replacement oil tanker;
 - h) possible delay in arrival of the tanker;
 - i) notice of readiness;
 - j) lay time and demurrage;

- k) determination of the quantity and specifications of the crude oil;
- l) right of inspection;
- m) claims and disputes settlement;
- n) taxes, customs duty, other fees and charges;
- o) abandonment of guarantees;
- p) overlifting and underlifting;
- q) non-lifting;
- r) safety and emergency procedures;
- s) force majeure;
- t) other matters to be agreed between the parties.

ARTICLE 32 (Consideration of the operating procedures and rules)

1. The operator, on behalf of the associates of the National Concessionaire must, within 30 days from the date of presentation of the procedures and rules referred to in the previous article, comment on these and recommend any changes.
2. The National Concessionaire must analyse the comments and recommendations received and, within 60 days from the presentation of the said comments and recommendations by the operator, agree on these procedures and rules.

ARTICLE 33 (Conformity with Angolan law)

The agreed procedures and rules for lifting must always be in conformity with the laws of Angola.

CHAPTER VI CRUDE OIL AND GAS

ARTICLE 34 (Measurement of oil and gas)

1. The operator of each block must submit for the consideration and decision of the Relevant Ministry the system of measurement, and the equipment and procedures to be used to measure production and sales of oil and natural gas.
2. The authorisation referred to in the previous section must be accompanied by at least the following information:
 - a) full specification, with dimensioned drawings and relevant descriptive material;
 - b) proposed operating procedures, including calibration and routine control;
 - c) method for taking and keeping samples.

3. Methods of laboratory analysis proposed for the determination of all the physical and chemical parameters.

4. Electronic flow measurement, using the measuring system (positive displacement or turbine meter) must be made according to the Manual of Petroleum Measurement Standards of the American Petroleum Institute (API).

5. The determination of the quantities of crude oil in vertical cylindrical tanks and ships must be made in accordance with the petroleum measurement standards of the American Petroleum Institute (API).

ARTICLE 35 (Measuring Instruments)

1. If any measuring or weighing instrument should be considered to be faulty or inaccurate, it must be considered to have been in that state since the last check, not exceeding a period of 90 days, except where the company can reasonably prove to the Relevant Ministry that this error could not have happened during that period.

2. All payments made by the companies licensed to market crude oil and natural gas during the period in which the instrument is not considered to be operational must be adjusted.

3. The measuring or weighing equipment must not be repaired, altered or undergo maintenance without authorisation from the Relevant Ministry.

ARTICLE 36 (Calendar of transactions)

The operators must submit, up to 90 days before the end of each half year, the calendar of transactions for the following half year, in order to make attendance by the inspector of the Relevant Ministry possible.

ARTICLE 37 (Units of measurement)

1. The net volume of crude oil must be determined in units of cubic metres at a temperature of 15°C and pressure of 1 atmosphere (101325 Pa). The volume in barrels at 60°F and 14.696 Psi must also be reported.

2. The volume of gas must be determined in units of cubic metres at a temperature of 0°C and a pressure of 1 atmosphere (101325Pa). The volume in cubic feet at 60°F and 14.696 Psi must also be reported.

ARTICLE 38 (Components of the liquid measuring system)

The installations of Fiscal Measurement of oil for the transfer of custody must include the following components among others, being compatible with the liquids being measured:

a) main inlet pipe;

b) main outlet pipe;

c) positive displacement meter or turbine meter or other equipped with a flow computer or similar device;

- d) a calibrated closed verification circuit (bidirectional tester), verification tank or connections to third party certification equipment, such as for example a transfer meter, a portable calibration verification closed circuit or other meter verification device;
- e) a sampling device actuated by the meter outlet flow;
- f) temperature and pressure measuring or compensating devices;
- g) man machine interface (MMI) system.

ARTICLE 39 (Components of the gas measurement system)

The installations of Fiscal Measurement of gas for transfer of custody must as a rule include among others the following components that must be compatible with the gas to be measured:

- a) an orifice plate meter or other equipped with a flow computer or similar device;
- b) a set of measuring tubes duly configured and with the necessary straight extensions both upstream and downstream;
- c) a sampling device actuated by the meter outlet flow;
- d) a temperature and pressure measuring or compensating device.

ARTICLE 40 (Measuring installations)

1. The oil and gas meters used to determine royalties, taxes, quantities for transfer of custody and production shares to be attributed in a specified Concession Area must be designed, installed, maintained and calibrated in such a way as to guarantee the precise measurement of the hydrocarbons produced in a Concession Area, according to the provisions of these regulations and the accepted rules and practices in the petroleum industry.

2. The measurement installations for the transfer of custody must be designed so as to:

- a) prevent reversal of flow in the meter;
- b) adequately protect the meters subject to pulses or pressure jumps by the use of compensation towers, expansion chambers or similar devices;
- c) prevent the meter being subject to shock pressures greater than the maximum service pressure;
- d) prevent the meter being bypassed.

ARTICLE 41 (Inspection)

1. The Relevant Ministry will have unrestricted access to the petroleum and natural gas installations for inspection of the measurement systems, verification of the operations and measurement reports.

2. The inspections must include:

- a) verification of the measurement systems installed according to applicable standards and regulations and in accordance with the manufacturers' recommendations;
- b) inspection of the state of the measuring systems and instruments;
- c) verification of seals and respective control sheets;
- d) monitoring of inspections of tanks and measuring systems;
- e) monitoring of calibration of the systems and instruments;
- f) monitoring of the measuring operations;
- g) verification of calculations of the volumes;
- h) monitoring of the sampling and laboratory analysis operations;
- i) verification of the measurement, testing and calibration reports.

3. All the instruments and equipment necessary for the inspections must be provided by the company.

4. When the Relevant Ministry states its intention to carry out inspections that involve non-routine operations, the operator must make arrangements for the performance of these within two working days.

5. When the inspection includes the monitoring of scheduled operations, the Relevant Ministry will state its intention to inspect them. The company will confirm the date and time of the performance of the operations at least seven days in advance. The duly accredited inspector of the Relevant Ministry must be present at the act of calibration, verification, comparison, measurement or weighing against an approved standard of any equipment or instrument, and the company must notify this 45 days in advance of the performance of those operations, and provide the necessary documentation or information for that purpose.

6. After carrying out his functions, the inspector must send a report to the Relevant Minister within two days.

ARTICLE 42 (Rights of the Inspector)

1. The duly authorised inspector of the Relevant Ministry has the right to request the preparation of the calibration, checks of the equipment and in addition may check the actions at any time without prior notice.

2. For the satisfactory performance of the functions referred to, the company must render every assistance, providing the equipment or personnel requested and meeting the costs hereof.

3. It is the responsibility of the companies to meet the costs of travel, health and safety of the inspector during the performance of his functions.

ARTICLE 43 (Operational procedures in the event of a fault)

An actual or presumed fault of a measuring system may be detected:

- a) during operation, if the system presents operating problems or provides erroneous results or if unauthorised adjustments are found;
- b) during calibration, if the system presents errors or variations in calibration above the limits or if the instruments cannot be calibrated;
- c) when a fault is detected in a meter, it must be removed from operation for its adjustment or calibration and replaced by another calibrated one. Production between the time of the fault and its removal from operation will be estimated on the basis of average hourly production prior to the fault;
- d) when the fault is detected during periodic calibration, the production affected will be considered to be production from the preceding calibration or during the 21 days immediately prior to calibration;
- e) the Relevant Ministry must be notified in writing within 24 hours of the occurrence of a fault in the production measuring system, and also of any other operational incidents that may cause an error in measurement or when there is total or partial interruption of measurement. Notification must include an estimate of the volumes involved.

ARTICLE 44 (Measurement, test and calibration reports)

1. The operators must send to the Relevant Ministry quarterly reports on their systems of measurement, testing and calibration of the petroleum equipment existing in the fields.
2. The reports prepared must contain the following items as a basic minimum:
 - a) all measurements, analyses and calculations made for the determination of production in a field;
 - b) the reports must contain information relating to daily production and respective shipments;
 - c) when a measurement is carried out in a tank with a volume greater than daily production, the measurement must be adjusted according to the production of each day;
 - d) the measurement report forms must be presented to the Relevant Ministry for approval. In the case of reports prepared using electronic means, they must contain all the calculation formulas used;
 - e) all the measurements, inspections, analyses and calculations made during the calibration of measurement instruments and systems must be recorded in reports. The reports must be drafted immediately following calibration and must include information to enable the Relevant Ministry for the petroleum sector to check traceability.
3. The reports must include in particular:
 - a) the operator's name;
 - b) identification of the field or installation;

- c) date and time the report was produced;
- d) period of production or movement of fluid;
- e) identification of the measuring points;
- f) values recorded (totals, levels, temperatures, pressures);
- g) gross, corrected and net volumes of production or transfer;
- h) results of laboratory analyses;
- i) correction factors with the parameters and methods used for their determination;
- j) signature of the person responsible for the report and his or her immediate superior;
- k) measurement, test and calibration reports must be filed and be available for examination by the Relevant Ministry or its representatives.

ARTICLE 45 (Admissible tolerances)

1. The maximum admissible error for crude oil meters must not exceed 0.3% of the measured volume.
2. The maximum admissible error for gas meters must not exceed 0.1% of the measured volume.

ARTICLE 46 (Notification and calibration)

Meters for the transfer of custody of liquid hydrocarbons must be verified and calibrated according to the following requirements:

- a) integrity of the calibration of each portable closed circuit for verification of calibration, of the verification tank, the main meter or any other type of verification device must be able to be checked by the verification standards certified by the United States National Institute of Standards and Technology (NIST) or by any equivalent institution, acceptable to the operator;
- b) transfer of custody meters, closed verification circuits (testers) and the verification tanks must be calibrated according to the Manual of Petroleum Measurement Standards (MPMS) of the API or other accepted standards and practices in the petroleum industry;
- c) from the calibration date, the base-volumes of verification (base volume of the tester) must be applied, and these must be within tolerance limits;
- d) the operator must notify the Relevant Ministry, 30 days in advance, of the performance of the calibration of the verification device of the meter used in the transfer of custody of any fluid, and the Ministry may send a representative to witness the said calibration;
- e) the information of measurement collected from the verifications and calibration must be documented and recorded in separate files.

ARTICLE 47 (Production blending)

1. For the purposes of this article, production blending shall mean the blending on the surface of hydrocarbons produced from two or more fields or concession areas, before their measurement for the calculation of royalties, taxes or production sharing.
2. If there are blends of oils of different specifications, the National Concessionaire and its associates must agree on the manner and procedures for lifting and distribution.
3. The Operator may commence production blending only after approval has been obtained from the Relevant Ministry.

ARTICLE 48 (Security of measurement)

1. The measuring points of crude oil, natural gas or both must be operated and maintained in such a way as to prevent any loss or theft of production and guarantee precise and adequate measurement.
2. The components of the measuring devices for sales (measuring units and tanks) must be sealed in order to prevent any falsification.
3. Seals of steel wire or any other acceptable type must be numbered and recorded.
4. A list of the numbers on the seals and the location of the measuring installations must be kept at the field installations and be available for inspection by the representatives of the Relevant Ministry.

ARTICLE 49 (Powers)

1. Powers for inspection of compliance with the provisions contained in these regulations are held by the Ministry of Petroleum.
2. Whenever it is considered necessary and in the case of inspecting and gauging the measuring system and all its components specified in this statute, the Relevant Ministry must request assistance from the Angolan Standardisation and Quality Institute (IANORQ).

CHAPTER VII BREACHES AND FINES

ARTICLE 50 (Breaches)

The following constitute breaches of this statute:

- a) non-compliance with the time limits for the exceptional extension of each of the concession periods set out in Article 7;
- b) non-compliance with the time limits for the exceptional extension of the prospecting licence, set out in Article 9;
- c) failure to present to the Relevant Ministry quarterly detailed information on progress in the activities carried out, as set out in Article 10(2);
- d) failure to present to the Relevant Ministry the annual plan of work within the time limit specified in Article 16(1) and 16(2);

- e) failure to present the deposit evaluation report to the Relevant Ministry within the time limit fixed by Article 19(1);
- f) failure to notify the Relevant Ministry of the petroleum deposits covered by the discovery that are not suitable for economical development as provided by Article 20(1);
- g) failure to present to the Relevant Ministry the system of measurement, equipment and procedures provided in Article 34(1);
- h) non-compliance with the standards set out in the Manual of Petroleum Measurement Standards of the API, as laid down in Article 34(4) and 34(5);
- i) failure to adjust an inaccurate measuring or weighing instrument, as set out in Article 35(1);
- j) repair, alteration or maintenance of measuring or weighing equipment without authorisation from the Relevant Ministry, as laid down in Article 35(3);
- k) failure to present the calendar of transactions within the time limit set out according to the point referred to in Article 36;
- l) failure to comply with accepted standards and practices in the petroleum industry in the measuring installations mentioned in Article 40(1);
- m) failure to report to the Relevant Ministry the occurrence of a fault in the production measuring system, and also any other operational incidents what may cause an error in measuring or when there is total or partial interruption of measurement, within the set time limit;
- n) failure to deliver reports on the measuring systems, tests and calibration of petroleum equipment existing in the fields within the time limit stipulated in the aforesaid Article 44;
- o) failure to calibrate meters according to the procedures mentioned in Article 46(a) and (b);
- p) failure to report the performance of calibration of the verification device of the meter used in the transfer of custody of any fluid referred to in Article 46(d) according to the appointed time limit;
- q) commencement of production blending without approval from the Relevant Ministry referred to in Article 47(3).

ARTICLE 51 (Fines)

1. The breaches specified in the previous article are punishable with the following fines:

- a) breaches committed in sections a), b), c), d), e), k), m), n) and p), with a fine in the amount of Kz 3,700,000.00;

b) breaches committed in sections f) and q) with a fine in the amount of Kz 74,000,000.00;

c) breaches committed in sections g), h) and l) with a fine in the amount of Kz 100,000,000.00;

d) breaches committed in sections i), j) and o) with a fine in the amount of Kz 111,000,000.00.

2. In the case of a repeat breach, the amount of the fines specified in the previous item will be doubled.

3. Where inflation adjustment is necessary, the amount of the fine must be adjusted according to the current Fiscal Correction Unit.

4. The sanctions defined in the previous items will be applicable without prejudice to any civil or criminal proceedings that may be brought in relation to consequences resulting from non-compliance.

5. 60% of the proceeds of the fines constitutes revenue of the State Budget and the remaining 40% is revenue of the Relevant Ministry.

ARTICLE 52 (Independence of the imposition of fines)

The imposition of fines does not release the offender from compliance with the rules of these regulations and is independent of any other sanctions that may be imposed under the relevant legislation, in particular by the application of the Law of Economic Infractions.

CHAPTER VIII INSPECTION OF PETROLEUM OPERATIONS

ARTICLE 53 (Monitoring and inspection)

1. The inspection actions referred to in Article 76 of Law 10/04 of 12 November may comprise the following in particular:

a) taking for the purpose of analysis of samples of oil or other substances resulting from the petroleum operations;

b) copying or photocopying any book, report or document related with the petroleum operations;

c) retention, with a view to being used as proof of non-fulfilment of an obligation by the National Concessionaire and its associates, of samples, other substances collected from the petroleum operations, books, reports and other documents or data related with the petroleum operations;

d) making the necessary inquiries to verify fulfilment of statutory or contractual obligations, by the licensees, the National Concessionaire or its associates;

- e) inspecting the construction and assembly of the installations or equipment for petroleum drilling, production and storage, and also the operation and modification of production installations;
 - f) inspecting the implementation and functionality of the operational safety systems and the contingency plans for fire fighting, spillages and other emergencies;
 - g) inspecting the operations of calibration of the measuring equipment;
 - h) applying the laws, regulations and rules of safety, hygiene, health at work and the environment according to current legislation;
 - i) investigating and/or participating in the investigation of cases of accidents, fires, explosions, spillages and others that endanger the safety of persons, installations and the environment;
 - j) inspection and registration of certificates of conformity of fixed, mobile and floating installations;
 - k) inspection of the engineering projects and programmes of general maintenance of the installations, and also their execution;
- [there is no section l - Translator]
- m) identification and inspection of the type of fluids used in well drilling;
 - n) any other action directed or guided by higher authority.

2. The costs inherent in the acts of inspection specified in this article will be met by the entity being inspected.

ARTICLE 54 (Inspection of measuring units)

The activities of inspection of the provisions of these regulations comply with the conditions and minimum requirements demanded for crude oil and natural gas measuring systems.

ARTICLE 55 (Guarantee of fulfilment of the obligations assumed)

1. The guarantees referred to in Article 32 of Law 10/04 of 12 November will be provided by a cash deposit, bank guarantee, and those referring to the prospecting licence, construction and operation of oil and gas pipelines must be presented in favour of the Relevant Ministry and those of the associates in favour of the National Concessionaire.
2. Bank guarantees must contain a declaration by the issuing entity ensuring, up to the limit of the amount of the guarantee or the insurance, the immediate and unconditional payment of any sums demanded by the Relevant Ministry by virtue of non-fulfilment of the obligations covered by the bond, and the text must be submitted to the Relevant Ministry for approval before they are provided.
3. Guarantees will be extinguished on expiry of the validity period. Guarantees that must be renewed or replaced will remain in force until the corresponding renewal or replacement by a new surety is issued.

4. Where any surety provided by the licensee or the associate of the National Concessionaire is wholly or partly used, it must, within 30 days following the date of use, be replaced by a new surety of identical amount and content to those of the surety used.

ARTICLE 56 (Transport and storage of petroleum and natural gas)

The rules and procedures for the transport of petroleum and natural gas according to the provisions of Article 72 of Law 10/04 of 12 November will be defined in a separate statute.

The Prime Minister,
António Paulo Kassoma

The President of the Republic,
José Eduardo dos Santos
