

CAYMAN ISLANDS



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**THE PETROLEUM LAW, 1978
(LAW 7 OF 1978)
THE PETROLEUM REGULATIONS, 1984**

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In exercise of the powers conferred on the Governor in Council by section 9 of the Petroleum Law, 1978, the following Regulations are hereby made —

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| Citation. | 1. These Regulations may be cited as the Petroleum Regulations, 1984. |
| Interpretation. | 2. In these Regulations, —

“applicable law” means the laws, subsidiary legislation and other instruments having the force of law in the Islands;

“associated gas” means natural gas produced in association with crude oil and separated therefrom;

“consent” means consent in writing;

“crude oil” means solid and liquid hydrocarbons under normal atmospheric conditions, and includes condensates and distillates obtained from natural gas;

“fire-chief” means the person appointed as such under paragraph (1) of sub-regulation (73) of regulation 10;

“Government” means all the Government of the Islands;

“Governor” means Governor in Council; |

“natural gas” means all gaseous hydrocarbons, whether produced in association with crude oil or from gas wells, and includes wet gas, dry gas and residue gas remaining after the extraction of liquid hydrocarbons from wet gas.

Application.

3. (1) These Regulations shall apply to the exploration, drilling for and production of petroleum in the Islands, including the bed and subsoil of its territorial sea, its continental shelf, its exclusive economic zone and any other area declared by the Governor to be within the maritime resources jurisdiction of the Islands.

(2) The Governor may, under special circumstances, grant written dispensation from provisions laid down in or established by virtue of these Regulations.

(3) Anyone carrying out petroleum operations under a contract with the Government shall comply with the provisions of these Regulations and of any further Regulations or directions issued pursuant hereto, and ensure that these provisions are complied with in regard to their activities.

This requirement applies to any contractor as well as to anyone carrying out such activities for him either personally or through employees or through independent sub-contractors.

(4) The Governor may give directions to a contractor, consistent with these Regulations. In cases where delays may create danger, such orders may be directed to the responsible person on a platform, vessel or aircraft or other installation to which these Regulations apply. Copies of such orders shall be forwarded to the contractor without delay.

(5) The Governor may in writing authorize any person to exercise and perform any of the functions of the Government under these Regulations, and anything done by that person in pursuance of the authorisation shall have the same validity and effect as it would have if done by the Government.

Reference map and demarcation of blocks.

4. (1) The Governor shall cause to be prepared a reference map showing land in the Islands, together with the surface of the territorial sea, the surface of the sea above the continental shelf and any other area declared to be within maritime resources jurisdiction of the Islands, divided into numbered areas, each of which shall be known as a “block.”

(2) For the purpose of dividing the territory under the jurisdiction of the Islands into blocks, the surface of the earth shall be deemed to be divided --

- (a) by the meridian of Greenwich and by meridians that are at a distance from that meridian of five minutes

- (e) to publish summaries of exploration wells, including lithological groups, classification boundaries and hydrocarbons zones -
- (i) in the case of discovery wells, one year after completion of drilling;

- (ii) in any case at any other time;

- (f) on relinquishment of any part of a Contract Area, to incorporate geological and geophysical information relating to the surrendered lands in general and regional accounts and regional maps;
- (g) one year or later after relinquishment of any part of a Contract Area, to publish well records relating to the surrendered lands, including electric logs, lithologies, cored samples, well cuttings and sidewall samples, drill stem tests, flow records and faunal and floral lists.

- (17) A contractor shall not export any document or data from the Islands unless a duplicate or copy thereof remains in the Islands. Notwithstanding the foregoing, a contractor may, with the approval of the Governor which shall not be unreasonably withheld, export magnetic tapes, core samples of other mineral samples when necessary and shall return such samples or tapes to the Islands after completing evaluation.

Inspectors.

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- (1) The Governor may appoint inspectors having authority to supervise petroleum operations, and to ensure that these operations are carried out in conformity with the applicable law and with conditions stipulated in the exploration license or the Petroleum Agreement, as the case may be.
- (2) The inspectors shall be entitled at all times to have access to exploration vessels, drilling platforms, production facilities, installations for production of electricity, shipment facilities and other installations, and to all data pertaining to petroleum operations. The Governor may, at any time, from time to time, authorise any public official or other person to exercise the powers of an inspector.

Made in Council this 20th day of March, 1984.

JENNY MANDERSON
Clerk of the Executive Council

as is specified, in the instrument, to answer questions relating to those operations and to produce such documents relating to those operations as are specified in the instrument.

- (2) A person shall not -
- (a) refuse or fail to comply with a requirement in an instrument under paragraph (1) of sub-regulation (15) to the extent to which he is capable of complying with it;
 - (b) in purported compliance with a requirement referred to in sub-paragraph (a) hereto knowingly furnish information that is false or misleading in a material particular; or
 - (c) when attending before a person specified by the Governor under a requirement referred to in sub-paragraph (a), hereof knowingly make a statement or produce a document that is false or misleading in a material particular.
- (16) (1) All data and information made available to the Governor pursuant to these Regulations shall not be divulged by the Governor, except in accordance with the terms of a data and by any data required by the laws and regulations of the Islands.
- (2) Notwithstanding paragraph (1), the Governor shall be entitled -
- (a) at any time, to make use of any information received from a contractor for the purpose of preparing and publishing aggregated returns and general reports on the extent of operations under petroleum agreements in the Islands.
 - (b) at any time, to make use of topographical survey information, including submarine topography for any purpose whatsoever;
 - (c) at any time, to make use of topographical survey information received from contractor for the purpose of any arbitration or litigation between the parties;
 - (d) at any time, to make use of any information regarding economic minerals other than petroleum;

or a multiple of five minutes of longitude; and

- (b) by the latitude of and by parallels that are at a distance from that parallel of five minutes of latitude,

into sections, each of which is bounded --

- (i) by portions of one of those meridians that are at a distance from each other of five minutes of longitude; and
- (ii) by portions of one of these parallels of latitude that are at a distance from each other of five minutes of latitude.

(3) For the purposes of these Regulations, such a graticular section constitutes a block.

(4) The reference map prepared pursuant to this regulation shall be available for inspection at a place designated by the Governor.

(5) The Governor may certify a map to be a true copy of the reference map prepared pursuant to this regulation and any such copy shall be received in all proceedings evidence of the contents of that reference map.

(6) A reference in a petroleum contract to a numbered block, or to part of a numbered block, shall be treated as a reference to the block, or part of a block, so numbered on the reference map prepared pursuant to this regulation.

Contract awards.

5. (1) A petroleum agreement entered into by the Government pursuant to section 6 of the Law may relate to any number of contiguous numbered blocks; provided, however, that the Governor may issue guidelines establishing a maximum number of blocks to which any petroleum contract may apply, either generally or in relation to a particular area or a particular petroleum agreement or class of petroleum agreements.

(2) Each such petroleum agreement shall specify the numbered blocks to which the petroleum contract relates.

(3) The Governor may, in his discretion, direct the petroleum agreements in respect of any block or blocks shall be awarded only after interested persons or organizations have been given an opportunity to submit bids to him.

(4) Neither a request to participate in bidding nor the submission of a bid in respect of any block or blocks shall create any right in favour of any applicant. The Governor shall have the right to reject or accept any or all bids which may be received, without assigning any reason therefor.

(5) The Governor may specify detailed procedures by which interested parties may take part in any bidding.

(6) A petroleum agreement shall become effective upon approval by the Governor in accordance with the applicable laws of the Cayman Islands.

(7) If the approval referred to in sub-regulation (6) is not obtained, a petroleum agreement shall be considered void and of no effect, and no party thereto shall have any claims against any other party with respect to any matter or thing arising out of, done or performed under such an agreement.

Relinquishment.

6. (1) Each petroleum agreement entered into by the Government shall provide that the contractor must relinquish not less than fifty per cent of the original area the subject of the contract within a period to be fixed in that agreement, and that within a further period to be fixed in that agreement, the contractor must relinquish not less than fifty per cent of the area then remaining the subject of that agreement, after deducting from such area any Development Area or Production Area.

(2) Not later than the expiration of the Exploration Period as defined in any petroleum agreement, the contractor shall relinquish all of the area the subject of such contract except for any Development area or Production Area.

(3) To effect the relinquishment requirements of this regulation, a contractor shall give written notice to the Government not less than ninety days prior to the date fixed by the agreement for relinquishment, specifying the blocks or parts thereof to be relinquished.

(4) A contractor may at any time, voluntarily, relinquish entire blocks, or quarter blocks constituting all or any part of a Contract Area, provided that at the time of such voluntary relinquishment the contractor is not in arrears in fulfilling its financial and other obligations under any petroleum contract relating to that Contract Area.

(5) Any area relinquished pursuant to this regulation shall, unless the Government otherwise determines, --

- (a) consist of entire blocks or quarter blocks;

from which flows petroleum.

(2) Following oral reports, written reports prepared by the contractor shall be submitted within seven days to the Governor. These reports shall contain (inter alia), in the case of a showing of hydrocarbon presences, the relevant geological information and chemical analyses. In the case of drill-stem tests, the written report shall contain (inter-alia) -

- (a) relevant geological information;
- (b) conditions and results of drill-stem tests;
- (c) chemical and physical analyses;
- (d) any deductions therefrom as to the potential of the reservoir.

(13) All data, well logs, maps, magnetic tapes, core samples and other geological and geophysical information attained by a contractor as a result of its activities under a contract and all geological, technical, financial and economic reports, studies and analyses prepared by or for a contractor relating to any Contract Area or activities under a contract, are the property of the Government, but a contractor shall be entitled to retain samples and copies solely for its own use. A contractor shall deliver to the Governor, as requested in writing by the Governor, within a reasonable time after they have become available, copies of all of the above. All processed geophysical information requested shall be submitted on transparent dimensionally stable material such as "Mylar" or equivalent.

(14) Duly authorised representatives and auditors of the Government shall have the right at all reasonable times, to have access to and to inspect, test and audit the works, equipment, operations and financial books, records and registers of any contractor relating to its activities under any contract including the transportation and marketing of petroleum. A contractor shall furnish to the duly authorized representatives and auditors of the Government who effect the inspection, testing or audit all necessary assistance and adequate facilities for the proper discharge of their duties.

- (15) (1) Where the Governor has reason to believe that a person is capable of giving information or producing documents relating to exploration operations, or exploitation operations in a Contract Area, the Governor may, by instrument in writing served on that person, require that person -
 - (a) to furnish that information in writing within the period and in the manner specified in the instrument or
 - (b) to attend before a person and at such time and place

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in respect of such calendar year. The financial statements included in the annual report shall be prepared in accordance with the accounting procedure and with accounting principles generally accepted in the petroleum industry.

(3) Each contractor shall also submit to the Governor the following reports -

- (a) within two months after the first days of January and July in each year, estimates of crude oil and natural gas production and exports for each of the four half-year periods immediately following each of those dates;
- (b) within four months after the end of each calendar year -
 - (i) an estimate of economically recoverable reserves of crude oil and natural gas at the end of that year;
 - (ii) records, in a form approved by the Governor, which describe the results of all exploration, development and other works carried out by the contractor during that year in connection with searching for, boring for and obtaining petroleum;
- (c) within six months of completion of drilling, summaries of exploration wells, including lithological groups, letter classification boundaries and hydrocarbon zones; provided that such information as cannot reasonably be obtained within this period shall be submitted as soon as possible;
- (d) on relinquishment of any part of the Contract Area such maps, plans, reports, records, interpretations and data, made or obtained by or for the contractor relating to exploration, development production and any operations, in the surrendered lands, as the Governor may require; and
- (e) from time to time, such other plans and information as to the progress and results of the contractor's operations as the Governor may reasonably require.

(12) (1) A contractor shall report orally to the Governor within twenty-four hours any of the following circumstances -

- (a) if a well shows the presence of hydrocarbons; or
- (b) when a drill-stem test has been carried out on a well

Minimum work and
Expenditure Obliga-
tion.

Petroleum Discovery.

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- (b) insofar as is reasonably possible, be continuous and compact and of sufficient size and suitable shape so as to permit the effective carrying out of Exploration Operations on the relinquished area;
 - (c) be such that the Contract Area remaining after relinquishment is as far as possible continuous and compact; and
 - (d) conform to such further specifications as may be included in any petroleum agreement pertaining to the area.

7. (1) The contractor shall be required to undertake during the exploration period a minimum work obligation, including a minimum drilling commitment, to be specified in the Petroleum Agreement.

(2) The contractor shall be required to spend a minimum sum, to be specified in the Petroleum Agreement, to carry out the minimum work obligation undertaken by him pursuant to sub-regulation (1).

(3) The contractor shall be required to deliver to the Government a bond or banker's guarantee, acceptable to the Governor, for the total amount of the expenditure obligations stipulated under sub-regulation (2).

8. (1) If petroleum is discovered in the Contract Area, the contractor shall immediately report in writing such discovery to the Government.

(2) Unless the contractor, when reporting the discovery under sub-regulation (1) notifies that the discovery does not merit appraisal, he shall, within ninety days or such other period as is stipulated in the Petroleum Agreement for this purpose, submit to the Governor or such other agency as may be designed in the Petroleum Agreement, a work programme for appraisal of the discovery.

(3) Within the period of ninety days after the completion of the work programme submitted under sub-regulation (2), the contractor shall submit to the Governor, or such other agency as may be designated in the Petroleum Agreement, an evaluation report, which shall included but not be limited to information relating to geological conditions, such as structural configuration, physical properties and extend of reservoir fluid; fluid characteristics, including oil gravity, sulphur percentage, sediment and water percentage and product yield pattern; production forecasts (per well and per fluid); estimation of recoverable reserves; and evaluation of commerciality in accordance with criteria specified in the Petroluem Agreement.

accordance with criteria specified in the Petroleum Agreement.

(4) When the discovery is determined to be commercial in accordance with criteria stipulated in the Petroleum Agreement, the contractor shall submit with the evaluation report a general development plan which shall contain --

- (a) a general description of the technique and equipment with which it is proposed that the field will be developed;
- (b) a description of the technical and economic feasibility of alternative methods of development.
- (c) the manner in which the contractor proposes to finance the development;
- (d) where any pool extends beyond the Contractor Area, the suggested unitization agreement in accordance with applicable law;
- (e) an impact statement describing the possible environmental effects of the proposed development plan.

Development and
Production.

9. (1) The Joint Management Committee established pursuant to a Petroleum Agreement shall submit a field development plan to the Governor for approval for each commercial field in the Contract Area, and the contractor shall not -

- (a) erect or carry out any relevant works, either in the Contract Area or elsewhere, for the purpose of getting petroleum from that area or for the purpose of conveying to a place on land petroleum got from that area; or
- (b) get petroleum from that area otherwise than in the course of searching for petroleum or drilling wells,

except with the consent in writing of the Governor or in accordance with a field development plan approved by the Governor.

(2) The contractor shall prepare and submit to the Governor, following approval by the Joint Management Committee in such form and by such time and in respect of such period during the term of this licence as the Governor may direct, a programme specifying -

- (a) the relevant works which the contractor proposes to erect or carry out during that period for either of the purposes mentioned in sub-regulations (1);

- (f) reservoir investigations and estimates regarding reserves, field limits and economic evaluations relating to future operations;
- (g) daily, weekly, monthly and routine reports on the petroleum operations;
- (h) comprehensive final reports upon the completion of each specific operation;
- (i) contingency programmes and reports on safety and accidents;
- (j) procurement plans, sub-contracts and service contracts;
- (k) design drawings, design criteria or specifications and construction records;
- (l) reports of technical investigations relating to petroleum operations;
- (m) reports of any other investigations based upon data from the Contract Area.
- (n) such other reports as may be required by accounting procedures stipulated in a Petroleum Agreement.

(11) (1) Within forty-five days after the end of each quarter, each contractor shall prepare and deliver a progress report to the Governor which shall contain a narrative report of activities during such quarter under the contract with plans and maps showing the places where work was done. Such quarterly reports shall contain -

- (a) a summary of all geological and geophysical work carried out;
- (b) a summary of all drilling activity and results obtained; and
- (c) a list of maps, a list of reports and a list of other geological and geophysical data prepared or for the contractor.

(2) Within four months after the end of each calendar year each contractor shall prepare and deliver to the Governor an annual report and financial statements which shall consolidate the information contained in the quarterly progress reports furnished

formations which may be of interest from a petroleum point of view, such samples shall be taken at frequent intervals. In these instances the intervals ordinarily shall not exceed ten metres.

(2) All samples collected shall be washed, dried and preserved in bags suited for this purpose. The bags shall be labelled with the name of the well and the date the samples were collected and the depths of origin. The samples or parts thereof shall within three months after the completion or abandonment of the well be despatched, at the expense of the contractor, to the Governor or a location designated by the Governor.

(3) Geologists or any other similarly qualified appointee of the Governor shall, at any time, have access to the samples.

(9) (1) The contractor shall, when it is deemed necessary take and keep cores of the various geological formations penetrated. Within three months of the termination of drilling, the contractor shall dispatch at his own expense, complete longitudinal sections of each core to the Governor or a location designated by the Governor. The longitudinal section shall contain not less than one-half of the core. The Governor shall receive copies of descriptions and analyses made of the core.

(2) Geologists from or appointed by the Governor shall, at any time, have access to the core.

(10) The contractor shall keep the Governor regularly and fully informed of operations being carried out by the contractor and shall promptly provide the Governor with information, data, samples, interpretations and reports, (including progress and completion reports), including -

- (a) processed seismic data and interpretations thereof;
- (b) well data, including, but not limited to, electric logs and other wireline surveys, mud logging reports and logs, samples of cuttings and cores and analyses made therefrom;
- (c) special reports, such as those prepared from drilling data, geological or geophysical data, including maps or illustrations derived therefrom;
- (d) well testing and well completion reports;
- (e) reports dealing with location surveys, seabed conditions, and sea-floor hazards or other reports dealing with well, platform or pipeline locations;

- (b) the proposed location of the works, the purposes for which it is proposed to use the works, and the time at which it is proposed to begin and to complete the erection or carrying out of the works;
- (c) the maximum and minimum quantities of petroleum which, in each calendar year during the period aforesaid or in such other periods during that period as the Governor may specify, the contractor proposes to get as mentioned in sub-regulation (1).

(3) If the Governor directs the contractor -

- (a) to prepare a different programme in pursuance of sub-regulation (2);
- (b) where an approved programme relates to a particular period or further periods,

the contractor shall comply with the direction.

(4) It shall be the duty of the Governor expeditiously to consider any programme submitted in pursuance of sub-regulation (2) and when he has done so to give notice in writing to the contractor stating -

- (a) that he approves the programme;
- (b) that he approves the programme subject to the condition that such of the relevant works as are specified in the notice shall not be used before the expiration of the period so specified in relation to the works or shall not be used without his consent in writing; or
- (c) that he rejects the programme on one or both of the following grounds -
 - (i) that the carrying out of any proposals included in the programme would be contrary to good oilfield practice;
 - (ii) that the proposals included in the programme are, in the opinion of the Governor, not in the public interest.

(5) Where the Governor gives notice of rejection of a programme in pursuance of paragraph (c) of sub-regulation (4), then -

- (a) if the grounds of the rejection consist of or include

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the ground mentioned in sub-paragraph (i) of that paragraph, it shall include in the notice a statement of the matters in consequence of which it rejected the programme on that ground;

- (b) if the grounds of the rejection consist of or include the ground mentioned in sub-paragraph (ii) of that paragraph, it shall include in the notice a statement of the rates at which it considers that, in the public interests, petroleum should be got from the area to which the programme relates,

and the contractor shall prepare and submit to the Governor before the time specified in that behalf in the notice -

- (i) where the notice contains such a statement as is mentioned in paragraph (a) of this sub-regulation modifications of the programme which ensure that the carrying out of the programme with those modifications would not be contrary to good oilfield practice;
- (ii) where the notice contains such a statement as is mentioned in paragraph (a) of this sub-regulation, modifications of the programme which ensure the getting of petroleum from the area there mentioned at the rates specified in the statements and which (except so far as may be necessary in order to get petroleum at those rates) are not such that the carrying out of the programme with those modifications would be contrary to good oilfield practice,

but the contractor shall not be required by virtue of paragraph (i) of this sub-regulation to submit modifications if the carrying out of the programme without modifications would not be contrary to good oilfield practice.

(6) If the Governor give notice in writing to the contractor that he approves the modifications of a programme which have been submitted in pursuance of paragraphs (i) and (ii) of sub-regulations (5), the programme with those modifications shall be deemed to be approved by the Governor; but if the contractor fails to perform the duty imposed on him by either of those paragraphs the Governor may, if he thinks fit, serve on the contractor such a programme as he considers that the contractor should have submitted in respect of the area and period to which the rejected programme related.

(7) Where the Governor proposes to approve a programme

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tor shall keep a daily log containing data on all operations during the day. Such data shall include -

- (a) the depth of the well at the beginning of the day;
- (b) the depth of the well at the end of the day;
- (c) the diameter of the borehole;
- (d) the geological formations encountered;
- (e) the characteristics of drilling fluid used;
- (f) the installation of casing;
- (g) if casing is installation, all relevant data concerning the installation, indicating diameter, type weight, together with information whether new or used casing is employed and to what depth the casing string has been installed;
- (h) particulars concerning cementing -
- (i) particulars of water, oil, gas and the like, encountered
- (j) details concerning well-logs;
- (k) deviation measurements, formation tests, pressure tests, temperature measurements in the well as well as other tests undertaken;
- (l) any other operations carried out, including without limiting the foregoing the recovery of broken drill pipes from the borehole, shooting, perforating, fracturing or acidizing of the well, completion or abandonment of the well and the like.

(2) The daily log shall further contain information about accidents, damages, injuries and other occurrences and other information which may be deemed by the Governor of current or future interest to the Governor.

(3) The Governor may require further information concerning the activities carried out under this sub-regulation.

(8) (1) While drilling is in progress, the contractor shall collect from the drilling fluid samples of all rock types in all the geological formations penetrated. When drilling is carried out in geological

- (i) crude oil;
 - (ii) natural gas;
 - (iii) natural gas liquids;
 - (iv) each refined petroleum product, including liquified petroleum gases;
 - (v) water and other liquids or gases
- (e) the quantity consumed for drilling and other production operations (other than quantities reported under sub-regulation (d) of this Regulation and consumed in pumping to field storage and refineries in the Islands of -
- (i) crude oil;
 - (ii) natural gas;
 - (iii) natural gas liquids;
 - (iv) each refined petroleum product, including liquified petroleum gases:
- (f) the quantity of crude oil refined in the Islands;
- (g) the quantity of natural gas treated in the Islands for the removal of natural gas liquids and liquified petroleum gases and the quantity of any liquids or gases or any solids obtained from it;
- (h) the quantity of natural gas flared; and
- (i) such further information as the Governor may reasonably require from time to time.

(4) On the drilling platform the contractor shall keep a daily log on a form approved by the Governor. The log shall be made at least in duplicate, and one copy shall be filed at the contractor's office in the Islands. The other copy shall at all times be retained at the platform and there be available for inspection by persons authorized by the Governor.

(5) The contractor shall, at all times, keep a record of all persons present on board the platform or on their way to and from the platform. The record shall contain the name of the individual and the name of the company or agency by whom he is employed. This record shall be available for the Governor or anyone authorized by him at the contractor's office in the Islands.

(6) During drilling operations the necessary logs shall be kept according to good oilfield practice. Such logs, together with any analyses made thereof, shall, without delay, be forwarded to the Governor.

(7) (1) While drilling operations are in progress, the contrac-

subject to condition in pursuance of paragraph (b) of sub-regulation (4) or to reject a programme in pursuance of paragraph (c) of sub-regulation (4) or to serve a programme on the contractor in pursuance of sub-regulation (6), he shall, before doing so, -

- (a) give the contractor particulars of the proposal and an opportunity of making representations to him about the technical and financial factors which the contractor considers are relevant in connection with the proposal; and
- (b) consider such representations as may then be made by the contractor, and the Governor shall not approve any programme subject to such a condition as may be set out with representation, unless it is satisfied that the condition is required in the Agreement.

(8) The Governor may give directions to a contractor establishing maximum and minimum production rates for a petroleum field. Such directions shall be given annually in advance, and the production rates specified therein shall be consistent with the maximum recovery of petroleum from the field and with the recovery by the contractor of any amounts to which he may be entitled under a Petroleum Agreement.

10. (1) Exploration for an exploitation of petroleum shall be carried out at all times in a safe manner in accordance with good oilfield practice and with these Regulations. Petroleum operations shall not to an unreasonable degree interfere with other activities, and without limiting the generality of the foregoing and particular care shall be taken by any persons engaged in petroleum operations to avoid any unreasonable impediment or nuisance to shipping, fishing or aviation, to avoid damage or risk of damage to underwater cables or other underwater installations, to avoid damage to marine life and other marine resources, and to avoid pollution of the seabed and its subsoil, the sea and the air, or if such pollution has occurred, to ameliorate the effects thereof.

(2) Contractors shall conduct their operations in accordance with work programmes approved pursuant to Petroleum Agreements to which they are party in a diligent, efficient and workmanlike manner and shall take all possible measures to prevent fire, and pollution and shall duly close any unproductive holes drilled by them and subsequently abandoned.

(3) The Governor may give a contractor directions, not inconsistent with the terms of any Petroleum Agreement, from time to time and the contractor shall carry out such directions, with

Conduct of Operations.

respect to -

- (a) the use of Caymanian goods, labour, and services in the petroleum operations, provided that such goods, labour and services are of adequate quality and can be supplied competitively;
- (b) the planning of a significant onshore facilities;
- (c) the training and employment of Caymanian personnel;
- (d) the allowable rate of petroleum recovery;
- (e) the unitization of oil fields extending beyond a single Contract Area.

(4) If a contractor at any time fails to carry out operations in a safe manner in accordance with good oilfield practice, the Governor may, after giving to the contractor reasonable notice, do any of the things which in his opinion may be necessary to ensure safety and to recover the costs and expenses of so doing from the contractor.

(5) Contractors shall conduct operations in accordance with the best conservation practices, bearing in mind the long term objective of maximizing ultimate recovery of petroleum originally in place. Contractors shall take all reasonable measures after the discovery of petroleum in any well capable of producing in commercial quantities to put such well into operation without undue delay, subject to the terms of any Petroleum Agreement. Contractors shall not start production from any field or well before testing and ascertaining to the satisfaction of representatives of the Government that the well has been properly completed in accordance with good oilfield practices. Contractors shall inform the Government sufficiently in advance to enable it to send such representatives to be present at such tests. Contractors shall be entitled to flare any petroleum produced for test purposes.

(6) If explosives are used, then marine seismic surveys are subject to the following rules -

- (a) prior to the commencement of seismic detonations the sonar and radar shall be turned on and shall be kept continuously sweeping round a full circle. Echo sounder and sonar shall thereafter continuously be kept in use till the termination of the survey;
- (b) as long as seismic surveys are undertaken, the

Governor's consent to the extent this is compatible with the efficient financial management of the contractor's activities under a contract, and the Government shall have the right to receive a copy, certified by a representative of the contractor that it conforms to the original, of any books, records and registers, the original copy of which is not kept within the Islands.

(2) Every contractor shall keep full and accurate records in a form from time to time approved by the Governor containing particulars of the following-

- (a) the drilling, deepening, plugging or abandonment of wells;
- (b) the strata and subsoil through which wells are drilled;
- (c) the casing inserted in wells and any alteration to such casing;
- (d) any petroleum, water and other economic minerals encountered;
- (e) the areas in which any geological or geophysical work has been carried out;
- (f) such other matters related to the above as the Governor may from time to time reasonably require.

(3) Every contractor shall keep in the Islands full and correct accounts (in a form from time to time approved by the Governor), which shall contain accurate entries of-

- (a) the gross quantity of crude oil and natural gas won and saved from the Contract Area;
- (b) the grades and gravity of the crude oil produced and the composition of natural gas produced;
- (c) the quantities sold of -
 - (i) crude oil;
 - (ii) natural gas;
 - (iii) natural gas liquids;
 - (iv) each refined petroleum product, including liquified petroleum gases;
 - (v) sulphur, in any form, or any other minerals, in any form, or any other gases, liquids or solids,

together with the names of the purchasers, the quantity purchased and the price paid by each purchaser;

- (d) the quantity injected into the formation of -

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the fair market value determination.

(18) For all measurements, weights, samples and analyses of petroleum required for the purposes of a Petroleum Agreement, the contractor shall employ methods customarily used in good technical practice in the petroleum industry and representatives of the Government shall have the right to observe all such measuring, weighing, sampling and analyses and to examine and test whatever appliances and methods may be used. Such representatives shall comply with all necessary and usual safeguards for the prevention of fire and other accidents and shall make all examinations and tests at such times and in such manner as will cause the minimum interference with the contractor's operations.

(19) If upon such examination or testing, any such appliance shall be found out of order, the contractor shall cause the same to be put in order within a reasonable time specified by the Governor, and, if upon such examination or testing the appliance or methods used have resulted in too low a figure for the quantity and quality of petroleum produced, such circumstances shall, if the Government so decides after hearing the contractor's explanation, be deemed to have existed for a period of three calendar months prior to the discovery thereof, or since the last examination or testing of such appliance, whichever period is shorter, and all consequential adjustments shall be made to any payments in respect of deliveries of petroleum affected by such error.

(20) If the contractor finds it necessary to alter, repair or replace any appliance, it shall give reasonable notice to the authorised representatives of the Government to enable representatives of the Government to be present during such alteration, repair or replacement. Notwithstanding anything stated above, the contractor shall not make any alterations in the method or methods of measurements, weight sampling or analyses used by it or to any appliance used for the purpose without the consent in writing of the Governor.

(21) In this regulation (a) "appropriate per centum" means the difference (expressed as a per centum) between the prescribed per centum and the amount (expressed as a per centum) specified in the relevant notice given under sub-regulation (4); (b) "prescribed per centum" means the prescribed rate as specified in sub-regulation (3).

15. (1) A contractor shall maintain correct and adequate financial accounting books, records and register concerning its activities under a contract in accordance with the accounting procedure and with accounting practices generally accepted in the petroleum industry. Original copies of all such financial books, records and registers shall be maintained by each contractor in the Islands but with the

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survey vessel shall fly the international flag signal in force;

- (c) special care shall be taken in the use of explosives. Detonations shall be carried out in such a manner as not to cause damage or risk of damage to underwater cables or other underwater installations to fishing vessels, or to floating or stationary fishing gear;
- (d) the explosives employed shall be of such type as to cause the least possible damage to marine life;
- (e) charges shall not be larger than necessary and shall be detonated as near to the surface of the sea as possible. The Governor may decide the types of explosives, detonators and the other substances and equipment to be used in the survey, as well as fix the maximum charges to be detonated;
- (f) the charges shall be equipped with a safety device which renders the charges harmless in case they remain in water for more than two hours. Such safety devices shall beforehand be approved by the Governor or anyone authorized by it.

The charges shall furthermore be marked with the name of the contractor or other identification approved by the Governor.

(7) A daily log shall be kept of seismic surveys undertaken under sub-regulations (6). The log shall include information on the size of the charges and the number of explosions, with an accurate indication of the shot points. Charges which fail to fire or which misfire, shall also be entered into the log. The log shall, as far as reasonably possible, contain information of importance regarding the effects of the surveys on marine life. The Government may require the log or certified copies thereof to be produced.

- (8) (1) No well shall be drilled -
 - (a) without the approval of the Governor, which approval shall not unreasonably be withheld;
 - (b) so as to deviate at any point out of the Contract Area; or
 - (c) within two hundred metres of the boundary of any Contract Area.
- (2) Each well shall be described by a certain number (which shall be notified to the Governor) in the

records, maps and plans which the contractor, is required to keep and any change in that number shall likewise be notified to the Governor.

- (3) Where work at a well has been discontinued for more than three months, the well shall not be recommended (except for the purposes of cleaning out operations in a producing well) unless seven days' notice of the intended recommencement is given to the Government.

(9) Before any drilling is commenced, an organization plan shall be submitted to the Governor. This plan shall identify the individuals responsible for supervision of the drilling. The chief responsible individual or his deputy shall always be present on the drilling platform or rig. The plan must expressly stipulate the abilities of the responsible individuals, and the chief responsible individuals must, as far as possible, have maritime experience. If not, he shall always have an assistant with sufficient maritime experience.

(10) (1) Drilling shall not commence except after approval of the drilling plan by the Joint Management Committee pursuant to a Petroleum Agreement.

- (2) The contractor shall submit to the Governor a drilling programme which, inter alia, shall contain the following information -
- (a) a description of the construction and equipment of the drilling platform, as well as information as to whether the drilling shall be carried out by others than the contractor;
 - (b) information on the geographical position of the well;
 - (c) the estimated total depth of the well;
 - (d) the geological strata which are expected to be penetrated;
 - (e) the depth of the ocean at the well site;
 - (f) a programme for the installation of casing. The programme shall give the necessary details as to diameter, weight and type of casing, whether new or used casing is to be employed, at what depth the casing is intended to be installed, together with a cementing programme. Such casing programme shall be in accordance with good oilfield practice.

means a buyer and a seller who mutually have not such common interests as could have influenced an agreed price.

Valuation shall take into account, amongst other things, the realised and quoted prices for petroleum of the same of equivalent nature after making the necessary adjustments for differences in quality, transport costs, delivery time, payment time and other terms, the realised prices for petroleum products after making the necessary adjustments for processing and similar matters, and any other comparable prices or valuations and similar matters that may exist.

(14) The fair market value shall be determined as a price for petroleum produced during a specific period. Unless otherwise indicated by special circumstances, the fair market value shall be determined by the Governor in arrears for each quarter. For purposes of royalty payment, a provisional fair market value may be established by the Governor.

(15) Unless otherwise required by special circumstances, the fair market value shall be determined quarterly. Before a fair market value is finally determined, the contractor involved shall be given at least three weeks to submit relevant information to the Governor. The Governor may at any time call meetings with the contractor and other interested parties for discussions and to obtain additional information. As far as possible each of the parties involved shall be given an opportunity to study the data and related documents submitted by the other parties involved. The Governor may, however, withhold internal documents, statements received and other documents which contain information concerning trade and similar matters. If possible, the parties involved shall be notified and given a short respite to submit views whenever a provisional fair market value is being stipulated. If after a provisional evaluation, the Governor finds that no essential change has occurred, he may decide that the most recent final fair market value determined shall apply as a provisional fair market value for the subsequent period.

(16) Where the contractor is of the opinion that a final determination of fair market value is opinion that a final determination of fair market value is obviously inequitable, he may request the appointment of a committee of experts to advise the Governor. Requests for the appointment of such a committee of experts must be received by the Governor not/ later than fourteen days after notification of the final fair market value determination. The committee shall consist of three members appointed by the Governor. The committee shall allow the Governor and the parties who requested its appointment to present statements verbally or in writing, and otherwise collect such information as the committee considers desirable.

(17) Following receipt of the committee's opinion, the Governor shall determine whether any adjustment needs to be made to

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- (d) any other matters which the Governor may from time to time reasonably require.

(8) A return under sub-regulation (7) for a royalty period shall state the amount of royalty payable under a Petroleum Agreement for that period and shall contain details of the calculation of that amount, by reference to the appropriate provisionsal or final fair market value determined pursuant to sub-regulation (12).

(9) Royalty is payable not later than one month after the end of each quarter.

(10) Where an amount of royalty determined in accordance with sub-regulation (3) is not paid as provided by sub-regulation (9) there shall be paid to the Government by the contractor, an additional amount calculated at the rate of two per centum per month or part of a month upon the amount of royalty from time to time remaining unpaid, to be computed from time to time when the royalty became payable until it is actually paid. Where royalty is promptly paid on the basis of a provisional determination of fair market value, an additional amount is not payable under sub-regulation (10) in respect of any additional royalty that may be due as a result of a final determination of fair market value under sub-regulation (12) provided that such additional amount is paid within one month of the final determination.

(11) Royalty is payable -

- (a) in respect of petroleum intended for export, in United States dollars; and
- (b) in respect of petroleum intended for domestic use, in the currency of the Islands.

(12) The Governor shall, from time to time, after considering any information furnished by the contractor and any other information that the Governor considers relevant, determine the fair market value, for the purposes of royalty and other payments by the contractor of any petroleum produced under agreement -

- (a) in the case of petroleum intended for export, at the point of export; or
- (b) in the case of petroleum not intended for export, at the point of delivery to a refinery or processing facility in the Islands.

(13) The fair market value shall correspond to the price at which petroleum could have been sold between independent parties in a free market. In this sub-regulation, "independent parties"

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Necessary consideration shall, inter alia, be given to the possibility of unknown underground geological structures at the well site. Necessary consideration shall likewise be given to any pressure which may be anticipated in the well;

- (g) a description of blow-out preventers (including auxiliary equipment) which will be used during the drilling, with information as to make, type, necessary technical details and the manner in which they will be installed. The description shall likewise contain the necessary information as to pressure tests to be taken during the period of drilling;
- (h) a drilling fluid programme;
- (i) a programme for pressure tests and other measurements of the well;
- (j) a coring programme;
- (k) a testing programme for possible petroleum finds;
- (l) the safety instructions applicable to the intended operations, whether issued by the contractor or his sub-contractors, unless these safety instructions have previously been approved by the Governor.

Information as to changes in, or amendments to, safety instruction previously submitted shall be given to the Governor prior to implementation of the changes.

- (3) Major changes in the drilling programme shall not be made without the Governor's consent. In an emergency, however, the drilling programme may be departed from without prior consent. The Governor shall in such cases be notified forthwith of the alterations and of the underlying circumstances requiring such changes.

(11) Before provisional or permanent installations, including all types of drilling platforms, are put in place, the Governor's written consent to the location or relocation must be obtained. The Governor shall likewise be informed, with sufficient time in advance, about removals and movements of the said installations.

- (12) (1) Towing of drilling platforms shall not be carried out without prior notification to the Governor. The

towing shall be carried out at all times in accordance with the international and domestic regulations and rules in force. The Governor or anyone authorized by it may give further directions for the towing.

- (2) Only essential personnel shall remain on the platform during towing. All proper safety measures shall be taken.
- (3) Towing shall be carried out in such a manner that it causes the least possible nuisance in the area. Special care shall be taken with regard to fishing and shipping in the area.
- (13) (1) Any drilling platform shall be marked with the name of the contractor.
- (2) The marking shall be effected in such a manner as to make identification easily possible from vessels as well as from aircraft. The marking shall be easily visible in daylight as well as at night.
- (14) (1) A drilling platform shall be equipped with approved lights, sound signals, and flag signals.
- (2) For the protection of air traffic, the platform shall be equipped with approved warning lights. All points on the platform which may endanger helicopter service to and from platform shall be sufficiently marked.
- (15) From sunset until sunrise, the drilling platform shall be equipped with one or more white lights placed so as to ensure that at least one light is visible upon approaching the platform from any direction. the lights shall be placed not more than thirty metres above sea level and shall be visible, in dark nights with good visibility, at least ten nautical miles. The lights shall be equipped with synchronized devices rendering a flashing signal corresponding to the Morse letter U approximately every fifteen seconds. The lenses of the lights must be constructed in such a manner as to ensure that the light, in addition to being visible at the above-mentioned distance, is visible from any vessel being in the vicinity of the platform.
- (16) (1) The platform shall be equipped with one or more high-powered synchronized devices which are so constructed and installed as to emit sound signals audible in all directions. The sound devices shall be placed not more than thirty metres and not less than six metres above sea level and shall be audible at a distance

half per centum of the fair market value of such crude oil;

- (b) in the case of natural gas or natural gas liquids, a minimum of twelve and one-half per centum of the fair market value of that gas or those liquids.
- (4) The Governor may, by notice, not later than six months before the commencement of any quarter, required the contractor to deliver the prescribed per centum, or such lesser per centum as is specified in the notice, of each quality of crude oil that is won and saved in that royalty period, and the contractor shall comply with the requirement by delivering, free of charge to the Government, at a point in the Islands agreed with the Governor, crude oil in accordance with the requirement and, where in the royalty period concerned the contractor has won different qualities of crude oil, proportionate quantities of each quality of crude oil shall be delivered.
- (5) Where, in a notice referred to in sub-regulation (4) the Governor specifies a per centum that is less than the prescribed per centum, the contractor shall discharge its liability to pay royalty -
 - (a) by delivering, in accordance with sub-regulation (4) the per centum as specified of crude oil; and
 - (b) by paying, in accordance with sub-regulations (3), relevant royalty at the prescribed rate in respect of the appropriate per centum of crude oil won and saved in the royalty period concerned.
- (6) Royalty is not payable in respect of-
 - (a) petroleum that the Governor is satisfied was unavoidably lost before the quantity of that petroleum was ascertained; and
 - (b) petroleum that, with the approval of the Governor, is flared or vented in connection with operations for the recovery of petroleum.
- (7) The contractor shall, within one month after the end of a royalty period, deliver to the Governor, in such form as the Governor may specify, a statement of -
 - (a) the quantity of petroleum won and saved in the Contract Area in that period;
 - (b) the quantity of that petroleum to which paragraph (b) of sub-regulation (6) applies;
 - (c) the quantity of that petroleum disposed of by sale before the end of that period; and

13. (1) A contractor shall maintain an organisation in the Islands to carry out operations under a Petroleum Agreement. A contractor's representative who is in charge of such organisation shall be authorised to receive notices, to act and to enter into binding commitments for the contractor.

(2) A contractor shall be liable for any loss suffered by or damage done to the Government (including Government personnel) or other persons by the contractor or its sub-contractor's wrongful or negligent acts or omissions in the conduct of its operations, and shall, at all times indemnify the Government against all claims and liabilities thereof.

(3) The contractor shall at all times keep the Government effectually indemnified against all proceedings, costs, charges, claims and demands whatsoever which may be made or brought against the Government by any third persons in relation to or in connection with a Petroleum Agreement or any matter or thing done or purporting to be done in pursuance thereof.

(4) The contractor shall, if required to do so by the Government, take out and maintain such form of contract of insurance as the Governor may approve against any liability which is may incur under sub-regulation (3) hereof.

14. (1) Subject to any Petroleum Agreement, the contractor shall be liable to pay in respect of each quarter a royalty on all petroleum won and saved in the Contract Area in that period.

(2) The liability of a contractor under sub-regulation (1) to pay royalty shall be discharged -

- (a) in the case of all petroleum other than crude oil by paying to the Government royalty at the prescribed rate, as provided in sub-regulation (3); or
- (b) in the case of crude oil,—
 - (i) by paying to the Government royalty at the prescribed rate, as provided in sub-regulation (3);
 - (ii) by delivering it as provided in sub-regulation (4); or
 - (iii) partly by so paying royalty and partly by so delivering it, as provided in sub-regulation (5).

(3) The prescribed rate in respect of petroleum won and saved is —

- (a) in the case of crude oil, a minimum of twelve and one

of at least two nautical miles in calm weather. The character shall be rhythmic blasts, two short and one long blast, corresponding to the Morse letter U approximately every thirty seconds.

(2) The short blast shall last a minimum of three quarters of a second. The sound signals shall be in operation when the visibility is less than two nautical miles.

(17) The drilling platform shall be equipped with an emergency system for light and sound devices which shall be switched on immediately if the ordinary equipment fails.

(18) The light and sound systems provided for in sub-regulations (14) to (17) inclusive shall be so constructed as to function without attention in cases where the platform is evacuated for any period of time.

(19) (1) Prior to the placing of a drilling platform in position for drilling, the seabed shall be checked and other necessary safety precautions be taken in accordance with good oilfield practice with a view to ensure that the platform will remain in place during operations.

(2) The contractor shall constantly check during drilling that the conditions of the seabed at the places where the legs or anchors of the drilling platform are situated have not substantially changed.

(20) (1) The drilling platform shall be at a safe distance from other installations for exploitation of petroleum, as well as from lighthouse, seabuoys, telegraph and telephone cables, pipelines and the like.

(2) In areas where cables, pipelines and other underwater installation exist, anchoring, jacking up of platforms and drilling cannot be commenced until the contractor has undertaken a thorough bottom survey, which has exactly identified the position of the underwater cable, pipeline or other installation.

(3) Damage caused to cables, pipelines, installations and the like as a result of the contractor's activities shall, notwithstanding who is to blame, be compensated by the contractor.

(21) As soon as drilling platform has been placed in position, the Governor shall be informed in writing about the exact geographical position of the platform.

(22) (1) A contractor shall, in ample time prior to the

commencement of drilling operations, transmit to the Governor a description of the platform, together with necessary drawings and specifications.

- (2) Prior to the commencement of drilling operations, the consent of the Governor must be obtained for the use of the drilling platform with installations and equipment.
- (23) (1) Any drilling platform must be constructed in such a manner as to be strong enough to withstand the weather and wind conditions which may be anticipated in the Contract Area. The anchoring systems, jack-up legs and the like must be so constructed that the platform is kept in place under any weather conditions that may reasonably be anticipated.
- (2) The contractor shall ensure that the platform or its equipment is in proper working condition at all times.
- (3) Any substantial damage to the platform or its equipment or installations shall immediately be reported to the Governor. Repair of such damage or substantial changes in construction shall immediately be reported to the Governor.
- (24) (1) Prior to the start of the initial drilling operations in a well, all necessary safety devices for the proper control of the well must be present and easily available on the platform, such devices being installed in accordance with good oilfield practice.
- (2) During drilling, all necessary steps shall be taken to keep the well under full control against the presence of oil, gas, water, and the like which may cause explosions, blow-outs, pollution or other destruction or accidents.
- (3) In the event of explosion, blow-out or other destruction or accident in a well, all necessary steps shall immediately be taken in accordance with good oilfield practice to re-establish safe working conditions and bring the well under control. All necessary measure must immediately be taken to repair, as far as possible, all damage sustained.
- (25) (1) Each well must be equipped with surface casing

sea and shall take such steps as the Governor may reasonably direct to ensure that after the completion of petroleum operations in the Contract Area or any part thereof by the contractor there will be no such interference.

- (2) (a) Survey vessels and aircraft carrying out exploration must comply with international and domestic regulations and rules in force at the time for the particular location, in relations to or in connection with navigation and aviation.
- (b) Vessels which are to be used for seismic surveys must be equipped with radar, echo sounder and sonar.
- (c) Aircraft shall not be used for seismic surveys without the written permission of the Government.

(3) A contractor shall carry out petroleum operations in such a manner as to:-

- (a) result in minimum ecological damage or destruction
- (b) control the flow and prevent the escape or avoidable waste of petroleum discovered in or produced from the Contract Area.
- (c) prevent damage to petroleum-bearing strata;
- (d) prevent the entrance of water through bore-holes and wells to petroleum-bearing strata, except for the purpose of secondary recovery;
- (e) prevent damage to on-shore lands and to trees, crops buildings and other structures; and
- (f) avoid any actions which could endanger the health or safety of persons.

(4) If a contractor's operations result in the uncontrolled release of petroleum or other materials on the seabed in the sea, or land or in fresh water, or if a contractor's operations result in any other form of pollution or shall otherwise cause harm to fresh water, marine or animal life, the contractor shall promptly take all necessary measures to control the pollution, to clean up any released petroleum or other materials, or to repair to the maximum feasible extent, any damage resulting from the said circumstances. The cost of such control, clean-up and repair activities shall be borne by the contractor.

(5) If a contractor shall not act promptly so to control, clean up, or repair, as the case may be, the Governor, after giving the contractor reasonable notice in the circumstances, may itself take any actions or execute any works which are necessary and the costs and expenses of such works shall be borne by the contractor.

manner as to secure an unobstructed flight path to and from the helicopter deck.

- (3) The drilling platform shall have such equipment and installation as are necessary for safe helicopter operation in accordance with the applicable law.

Unit Development.

11. (1) Where, during the term of any agreement, -

- (a) the Governor is satisfied that such agreement is in force in respect of a petroleum field which extends beyond the boundaries of the relevant Contract Area; and
- (b) the Governor considers that it is in the public interest in order to secure the maximum ultimate recovery of petroleum and to avoid unnecessary drilling, that the common petroleum field should be worked and developed as a unit on a co-operative basis,

the Governor may, by notice, require the contractor to co-operate with such persons as are specified in the notice (being persons who have an interest in a part of the common petroleum field) in the preparation of a scheme (in this regulation called a "development scheme") for the working and development of the common petroleum field as a unit by the contractor and such other operators on a co-operative basis.

(2) A notice under sub-regulation (1) shall contain or refer to a description of the area or areas in respect of which the Governor requires a development scheme to be submitted and shall state the period within which the scheme is required to be submitted for his approval.

(3) If a development scheme is not so submitted or if the development scheme so submitted is not approved by the Governor, he may cause a development scheme to be prepared and given to the contractor (which scheme shall be fair and equitable to the contractor and the other persons with an interest in a part of the common petroleum field) and the contractor shall perform and observe the terms and conditions to the Scheme.

(4) Notwithstanding that any dispute exists with regard to a development scheme, the contractor shall perform and observe its terms pending resolution of the dispute.

12. (1) Contractors shall carry out operations in such manner as to ensure that there will be no unnecessary interference with navigation, fishing or the conservation of the living resources of the

according to good oilfield practice. The surface casing shall be cemented at a depth justified by the geological conditions and with a view to maintaining complete control of the well at all times.

- (2) The surface casing shall be properly cemented over its full length. The cement shall be given sufficient time to set prior to the commencement of further drilling.

(26) Intermediate casing must be installed and cemented in such a manner, and at such time, as to ensure full control of the well at all times, considering, inter alia, the geological conditions of the subsurface, the danger of blow-outs, the protection of other resources in the sub-surface and the danger of pollution.

(27) Production casing shall be installed and cemented in such a manner as to isolate all hydrocarbon-bearing strata.

- (28) (1) The casing mentioned in sub-regulations (25) to (27) shall have such diameter, weight and type and shall otherwise be so designed and installed as to withstand any anticipated pressure which may be encountered in the well during drilling or production.
- (2) After the casing has been installed and properly cemented it shall be pressure treated according to good oilfield practice before drilling is resumed.

- (3) The installation of used casing shall not be permitted without proper testing of such casing in advance.

- (29) (1) Apart from drilling for opening the well, drilling must not be carried out before blow-out preventers and auxiliary equipment have been properly installed in accordance with good oilfield practice.
- (2) Blow-out preventers shall have such construction and such capacity as to enable them, together with the casing installed and the drilling fluid, to fully control any pressure which may be anticipated in the well.

- (3) The blow-out preventers shall be equipped with hydraulic controls operated by manual remote control from the derrick floor, within easy reach of the driller. The blow-out preventers shall furthermore be equipped with an additional remote control which may be operated independently and shall be placed at a safe distance from the derrick floor, so as

to be easily and quickly reached in the event the control panel at the derrick floor cannot be reached or fails to function.

- (4) The control panel shall plainly indicate whether the blow-out preventers are open or closed.
 - (5) The accumulator system required for the operation of the hydraulic system of the blow-out preventers shall be of sufficient capacity to operate against maximum pressure conditions to be expected in the well during drilling.
- (30) During drilling, installation and cementing of casing, the blow-out prevention equipment shall be pressure tested and function tested at regular intervals. Function tests of the blow-out preventers shall be carried out as frequently as necessary, at least once every twenty-four hours or every time the drill-pipe and drill-bit are pulled out of the borehole. The blow-preventers shall be pressure tested at the regular intervals required by good oilfield practice.
- (31)
- (1) During drilling, drilling fluid of the proper composition shall be kept circulating at all times in the well, in accordance with good oilfield practice. The drilling fluid shall be filtered and shall be continuously monitored for the presence of undesirable elements, including gases or liquids which may cause explosions or fire. The drilling fluid shall be of such density and composition as required by the geological conditions and other circumstances at the well-site. While the drilling fluid is in use, all practicable care shall be taken to avoid pollution.
 - (2) Shale shakers and drilling fluid tanks shall be provided with suitable and adequate means to remove explosive gases away from the platform. Areas where the shale shakers and drilling fluid tanks are located shall regularly be tested for explosive gases. The drilling fluid tanks shall be equipped with mud-pit level directly on the control panel at the drill stand.
- (32)
- (1) Drilling which intentionally deviates from the vertical line drawn from the centre of the well on the seabed, shall not be allowed without the written consent of the Governor. Such consent is not required, however, for deviations over shorter intervals, deviations to straighten out the well or to overcome difficulties encountered during drilling.

with the applicable law.

- (2) Broadcasting (sound and television) from the platform is prohibited.
- (92) During operations whereby the drilling platform is raised or lowered and during other operation and manoeuvres creating special danger, such as landing and take off of helicopters, mooring of vessels and the like, the radio station shall be ready for use and manned by a radio operator.
- (93)
- (1) The radio installations shall provide connections with stations on land, ships, helicopters and other drilling platforms in the area.
 - (2) The platform shall likewise be equipped with sufficient number of approved portable radio receivers and transmitters for lifeboats and other survival craft.
- (94)
- (1) The drilling platform shall have at its disposal a communication system consisting of ships and helicopters sufficient for good operation and proper maintenance of the platform.
 - (2) The communication system shall be organized in such a way that it can act promptly and efficiently in any emergency which may arise.
- (95) Before the drilling platform is put into operation, the contractor shall submit to the Governor a plan covering the communication systems. The platform shall not be put into operation until this system has been approved by the Governor.
- (96)
- (1) The drilling platform shall be so constructed and have proper fender systems, buoy systems or similar arrangements making safe transfer of persons and goods to or from the platform possible without creating hazards for platform, vessel, persons or goods.
 - (2) Vessels shall not moor, be moored or remain along side the platform when wind and weather conditions create danger for the vessel or the platform.
- (97)
- (1) The drilling platform shall, where appropriate, be equipped with an approved helicopter deck.
 - (2) The drilling platform shall be constructed in such a

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or other unfavourable weather conditions. Blasting shall, as far as possible, be carried out only during daylight.

- (84) (1) All necessary safety precautions shall be taken while blasting is carried out.
- (2) Radio equipment and other equipment which may endanger blasting activities shall not be in operation while blasting is carried out. Radio silence shall also be observed on ships and helicopters which are not at a safe distance from the platform, considering the type and power output of the radio equipment.
- (3) Other activities involving similar risks are likewise prohibited. The landing and take off of helicopters and mooring of vessels during blasting operations are likewise prohibited.

(85) In addition to these Regulations, the applicable law regarding transport, storage and use of explosives shall apply to petroleum operations.

(86) Perforating of wells shall be carried out in accordance with good oilfield practice.

(87) During perforation work, all necessary precautions shall be taken. Extreme caution shall be exercised to prevent premature firing.

(88) Ammunition for perforating guns shall be stored in metal containers properly earthed.

- (89) (1) The drilling platform shall have all necessary equipment for radio communications.
- (2) Before any platform is put into operation, the above-mentioned radio installation shall be approved by the Governor.

(90) The radio equipment shall be permanently installed in a suitable radio room so that it will not be damaged or displaced by sudden movements of the platform.

- (91) (1) The radio installation shall only operate on approved frequencies and with approved power output and in compliance with the conditions laid down in the radio communication licence issued for the said installation. It shall be maintained and operated in accordance with the international conventions in force at any time to which the Island is a party or which are binding on the Islands, and in accordance

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(2) The written consent of the Governor is required in cases of drilling multiple holes from the same location.

(33) Wells where petroleum finds have been made shall be secured in a proper manner according to good oilfield practice. The security precautions shall be of a type so as to facilitate production and protect the well against penetration of water and other alien matter into the well, to prevent escape of petroleum from the well and to protect the sea and air against pollution.

(34) The Governor shall be informed at least twenty-four hours in advance of discontinuation of extended duration and resumption of drilling operations.

- (35) (1) A well shall not be abandoned without the consent of the Governor which shall not unreasonably be withheld. To obtain such a consent, a contractor shall notify the Governor of the reasons for abandoning the well. He shall further more submit a plan for how the well will be plugged, secured and abandoned.

- (2) The Governor may stipulate a time limit within which each installation in or above the well shall be removed.

(36) When a well is abandoned, casing strings and cement in the well shall not be removed or destroyed, except as provided in sub-regulation (38) without the written consent of the Governor.

- (37) (1) An abandoned well shall be plugged in accordance with good oilfield practice with top cement plugs and with additional cement plugs in such a number, of such length and with such spacing between the individual plugs as is required in order to maintain complete control of the well and prevent the penetration of salt water or other alien matter into the well.

- (2) The well, including the interval between the cement plugs, shall be filled with drilling fluid or other fluid of sufficient density and with such other properties to safely withstand, together with the plugs, any pressure which may develop within the well.

(38) When a well is abandoned, parts of casing strings and other installations protruding from the seabed shall, except as provided in sub-regulations (35) to (37) be removed to such a depth that no obstruction remains which may cause danger or impediment to fish-

ing or shipping. Before final abandonment of the well, the contractor shall ensure that on the seabed, and on the surface of, or in the vicinity of the drilling location, no obstructions of any kind remain as a result of his operations which may cause damage or impediment to fishing, shipping or other activities.

(39) A contractor shall comply with instructions given from time to time by the Governor for protecting the safety, health and welfare of persons in or about the Contract Area.

- (40)
- (1) Drilling platforms and other installations shall be equipped with the necessary safety devices in accordance with good oilfield practice in order to prevent accidents.
 - (2) Any derrick with engines and crane equipment such as blocks, winches, wire ropes and the like shall be of a type approved by the Governor and shall be inspected at frequent intervals.
 - (3) Wire ropes shall be replaced or cut as soon as they show signs of wear and tear or whenever this is rendered necessary by the amount of work in ton kilometres performed by the wire.
 - (4) Moving parts, such as chains, travelling blocks, driving belts, gears, shafts, couplings, clutches and the like shall be properly shielded. The crown block shall be equipped with a safety device in order to prevent the wire from leaving the sheave.
 - (5) All hooks shall be equipped with safety latches.
 - (6) When practical, the derrick shall be equipped with escape ropes or similar devices installed in such a manner as to lead away from the derrick. The derrick floor shall have a sufficient number of emergency exits.
- (41)
- (1) Walk-ways, stairways and working surfaces shall be equipped with a non-slip surface, and when necessary, with toe-boards and railing.
 - (2) The companionways, stairways and the like between the various parts of the platform shall be so constructed as to permit safe passage.
 - (3) Railings shall likewise be installed on platforms leading over or around open tanks, shafts, gutters and other installations presenting hazards to the safety of personnel.

be carried out in a safe manner and in accordance with any directives issued by the Governor. Permission for such activities shall be obtained in advance from the fire-chief. All necessary precautions shall be taken during the performance of such work. The fire-chief shall ensure that-

- (a) the welding and cutting equipment are in good operating condition;
 - (b) the place where welding is to be performed is free of gas and that, as far as possible, no inflammable material of any kind is present in the vicinity of the welding site. Inflammable material which cannot be removed, must be properly covered; and
 - (c) fire-fighting personnel and sufficient fire-fighting equipment are on hand.
- (2) After completion of any welding or cutting work the work area shall be thoroughly checked so that sparks or glow will not cause fire.

(79) On a drilling platform, only types of explosives, including detonators or boosters, approved by the Governor shall be used. The explosives shall be of such a type as to be rendered harmless after being in seawater for a period of twenty-four hours at the maximum, but this requirement does not apply to perforating charges and to charges used for casing, cutting and the like.

(80) Explosives shall be kept onboard the drilling platform only immediately prior to their use, and only in such quantities as are required for the expected use.

- (81)
- (1) Explosives shall be stored in magazines which are specially approved for this purpose by the Governor. Detonators, boosters and blasting charges shall be kept separated.
 - (2) The magazines shall be so placed and constructed so that the explosives can easily be thrown overboard in cases of emergency.

(82) The transportation of explosives to and from the platform, as well as loading and unloading, shall be undertaken with the utmost care. Explosives must not be exposed to excessive sunshine, rain, humidity and the like.

(83) Explosives shall be used by qualified personnel approved by the Governor. Blasting shall not be carried out during thunderstorms

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- (74) (1) The drilling platform and its installations and equipment shall, as far as possible, be of fireproof material.
- (2) The drilling platform shall be equipped with fire-fighting equipment of an appropriate type and capacity for effective fire-fighting operations. Such equipment shall be located in suitable places and shall always be ready for immediate use.
- (3) Fire pumps and their prime movers shall be so positioned that sufficient pressure can be maintained in the fire-hoses anywhere on the drilling platform.
- (4) The engine room of the drilling platform shall be equipped with a permanent main fire-fighting system or other fire-fighting equipment deemed satisfactory by the Governor.
- (75) (1) The drilling platform shall be equipped, in addition, to the equipment mentioned in sub-regulation (74) with a sufficient number of approved mobile fire extinguishers. These shall be placed within easy reach in strategic positions on the platform and shall always be ready for immediate use.
- (2) A sufficient quantity of refill material for the fire extinguishers shall be available on the platform at all times.
- (76) (1) Adequate procedures shall be established on the drilling platform to ensure immediate detection and alarm of fire.
- (2) The platform shall be equipped with a fire alarm system which can easily be heard throughout the platform.
- (77) (1) Use of fire, naked light or working operations causing sparks shall be permitted only in places where such activities will not create danger of fire or explosions, and only with the consent of the fire-chief.
- (2) Smoking shall be allowed in the living quarters of the drilling platform. In addition to such areas, smoking shall be allowed only in such areas and at such times when it can safely take place.
- (78) (1) Welding or metal cutting by gas or electricity shall

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- (4) The deck of the drilling platform shall be constructed in such a manner that water washing the decks drains off easily.
- (5) The working areas and living quarters shall be equipped with a sufficient number of emergency exits giving easy access to the life-saving equipment such as escape ropes, climbing nets and the like.
- (6) The drilling platform shall as far as possible be equipped with a sick bay with necessary facilities to care for sick and injured persons. The platform shall have resuscitating equipment and complete First Aid equipment in accordance with directions given by the Governor from time to time. The first aid equipment shall be sufficient at all times to give satisfactory aid aboard and during transport to hospital ashore in connection with any foreseeable accident or disease.
- (7) The platform shall be constructed in such a manner that living quarters shall be sufficiently sound insulated, ventilated and heated. The quarters shall have sufficient equipment and light to ensure the health and comfort of personnel. The ventilation system shall be so constructed as to prevent penetration of poisonous or obnoxious gases, dust and the like through the system into the quarters. The ventilation system shall be equipped with main switches for immediate shut-down of the system in case of danger of gases and the like.
- (42) (1) During operations whereby the platform is raised or lowered, only essential personnel shall be present. Personnel remaining on board shall, as far as possible, be stationed on deck and be equipped with approved life vests.
- Suitable means for safe and immediate removal of personnel from the platform shall remain in readiness during the entire operation. In addition a stand-by vessel with sufficient capacity and equipment shall be kept ready in the immediate vicinity of the platform.
- (2) The manoeuvres mentioned above shall, as far as possible, be undertaken in daylight and only when rendered safe by wind and weather conditions.
- (43) (1) Unauthorised persons shall not enter the drilling platform without permission from the contractor or

anyone authorised by him.

- (2) During their stay on the platform, visitors shall comply with the safety rules applicable to the platform. Visitors shall, upon arrival, be instructed about safety regulations in force. Specific information shall be given about areas where smoking is allowed.
- (44) (1) Detailed safety instructions shall be prepared for each drilling platform. Each employee shall be required to sign a receipt for his individual copy of safety instructions.
- (2) The person in charge of each platform shall ascertain that the workers have understood all verbal and written instructions given for the execution of work operations.
- (3) General instructions shall be prepared for each drilling platform with regard to measures to be taken in emergencies. These instructions shall likewise be handed to the personnel in the same manner as the safety instructions referred to above. At frequent intervals drill exercises shall be held with a view to coping with emergencies.
- (45) (1) The drilling platform shall be equipped with adequate electric lighting to make work and stay on board as safe as possible.
- (2) The drilling platform shall be equipped with an adequate emergency lighting powered from an independent energy source. The emergency lighting system shall be switched on immediately should the ordinary lighting system fail.
- (3) Flash lights of an approved type shall be easily available at appropriate places.
- (4) The emergency lights and the flash lights shall be inspected at regular intervals.
- (46) The drilling platform shall be positioned so as to give maximum protection to operations performed thereon including mooring of vessels, landing and take-off of helicopters. Particular care shall be taken to avoid likely oil or gas leakage from reaching sources of ignition.
- (47) The lower deck of the drilling platform shall be at a safe distance

which shall be installed and which shall work independently of the main system.

(69) Portable electrical equipment, installations and lights to be used in danger areas on the drilling platform shall be of explosion-proof construction.

(70) The drilling platform shall be equipped with a main switch for all electrical installations in danger areas. Such main switch shall be installed in a place easily accessible and outside danger areas. The main switch shall also be equipped with a remote control that can be operated from the driller's stand.

(71) A qualified electrician shall always be available on the drilling platform. Only qualified electricians may carry out onbroad -

- (a) the installation and maintenance of electrical equipment and wires;
- (b) the necessary examination and testing of electrical equipment and wires, including inspection, to insure that the earthing system is in order.

(72) All personnel engaged in petroleum operations shall exercise care in connection with all activities which may cause fire. Special care shall be shown in the handling and storing of inflammable equipment and materials such as explosives, inflammable liquids and gases, materials with a tendency for self-ignition and the like.

- (73) (1) On each drilling platform there shall be fire-chief, who shall be appointed by the contractor who shall have the responsibility for fire prevention and fire fighting services onboard the platform. In addition, a fire-fighting squad shall be designated, consisting of a sufficient number of personnel who have received training in efficiently fighting fires and preventing and reducing the effect of explosions with the fire-fighting equipment at hand.
- (2) A fire-fighting plan shall be prepared in detail advising each employee of his place and task in case of fires. For each shift, a fire-fighting leader shall be appointed.
- (3) All personnel shall be familiar with the fire-fighting plan which shall be posted in conspicuous places.
- (4) Fire drills shall be held regularly.
- (5) A record shall be made in the daily log concerning fire drills held and checks made on the fire-fighting equipment.

called to the platform at once.

- (2) The contractor is obliged to arrange for and pay for transportation of a doctor to and from the platform and of a sick or injured person to shore facility.
- (3) If fatalities or other serious accidents occur, immediate notification shall be given to the Governor. In addition, a report shall be forwarded to the Governor in connection with all accidents or illness which result in a person being disabled for more than three days.

(63) Electrical installations, plants and equipment of any nature shall be constructed, installed and maintained in such a manner as to prevent, as far as possible, danger of accidents, fires, explosions and the like, and shall, at all times, be maintained in accordance with good industry practice.

- (64) (1) Generators, diesel engines and related equipment shall be placed at such distance from the derrick so as to prevent, as far as possible, penetration into the generator room of inflammable gases and the like. Generators, other principal electrical installations and diesel engines shall be placed in compartments constructed of flameproof materials.

- (2) The generators and related equipment shall be adequately powered to develop sufficiently energy for carrying out drilling in a satisfactory manner. In this connection consideration shall be given to increased demand for energy due to unforeseen circumstances.

- (65) (1) Electrical installations shall be effectively earthed.
- (2) All machinery, derrick and other installations of steel, including containers for oil, gas and the like which may accumulate static electricity, shall likewise be earthed.

(66) All electrical installations shall be protected in such a manner as to prevent voltage higher than that prescribed from being introduced into the wiring system.

(67) Electrical installations and wiring shall be provided with adequate protection against the penetration of water, humidity and the like. Special care shall be taken where outdoor installations and wiring are concerned.

(68) Electrical installations serving light and sound signals, blow-out preventers, firefighting equipment and the like shall, when necessary, be equipped with a reserve wiring system

above the sea level.

(48) When circumstances so demand, the contractor shall provide for a stand-by vessel which shall be stationed at the platform during drilling operations. This stand-by vessel shall have sufficient capacity and equipment to take on board and provide for the total crew of the platform in cases of emergencies.

- (49) (1) On platforms where the derrick has been lowered, the derrick must not be raised until the drilling platform is properly placed on the seabed or properly anchored. Prior to the erection of the derrick, it must be thoroughly checked to ensure that the derrick is in a proper working order.

- (2) The erection or lowering of the derrick must be carried out only when the weather and wind conditions render this safe, and, as far as possible, only in daylight.

- (3) No other work must be carried out below or in the immediate vicinity of the derrick while it is being erected or lowered.

- (50) (1) The offgoing crew shall by the end of each shift inform the oncoming crew of defects and damages which have occurred or have been detected during the shift and which have not been repaired.

- (2) The oncoming crew shall make certain that the equipment is in a safe condition.

- (3) A note shall be made in the daily log about substantial defects, and the manner in which these have been repaired.

(51) Special care shall be taken during the loading, unloading, handling and racking or drillpipes and casing. Due precaution shall be taken to prevent racked pipes and casing from rolling or shifting.

- (52) (1) Gas detectors or explosion meters shall be readily available on the platform.

- (2) The platform shall likewise be provided with sufficient oxygen apparatus for full breathing protection.

- (3) If sulphurous or other poisonous gases are encountered during drilling, all necessary safety

precautions shall be taken to prevent accidents. The Governor shall be notified forthwith of any such encounter.

- (53) (1) In connection with swabbing, formation testing, shooting, hydraulic fracturing, acidizing or other chemical treatment of a well, all necessary safety measures shall be taken. Preferably, such activities shall take place by daylight and only when wind and weather conditions render it advisable.
- (2) The work referred to in the preceding paragraph shall be performed in such a way that the well shall not be damaged or salt water or other alien matters shall not be allowed to penetrate into the well.
- (54) (1) Prior to the commencement of the activities mentioned in sub-regulation (53), the drilling platform shall be cleared of all unnecessary obstructions. Only personnel necessary for the operation shall be on or below the drilling floor, or in the immediate vicinity. All necessary precautions against fire shall be taken, and necessary fire-fighting equipment shall be ready for immediate use.
- (2) After termination of the activities mentioned in sub-regulation (54), the well and the drilling platform shall immediately be cleaned.
- (55) (1) During acidizing operations personnel who may come in contact with acid shall be provided with protective clothing including hoods, gloves and boots.
- (2) Acid-containers shall be handled with care and shall during transport and use be properly secured so as to prevent unnecessary movement, breakage or the inflicting of damage to the surroundings.
- (3) A sufficient amount of neutralizing material shall be easily available for neutralizing any spillage of acid.

(56) The contractor and all other persons working onboard the platform shall at all times take the necessary precautions to avoid accidents.

(57) Personnel working on the drilling platform shall be equipped with safety helmets, safety boots, safety belts and other safety equipment which they are obliged to use when working conditions so require.

(58) No one shall be allowed in areas where there is lack of oxygen or where the air may be polluted by inflammable or poisonous gases or by other vapours or dust in such quantities as to endanger human life or health, unless that person is equipped with appropriate breathing apparatus.

- (59) (1) The contractor shall submit a diving operations plan for approval to the Governor before diving operations are commenced. The plan shall contain details concerning the equipment to be used and the safety precautions to be taken to protect the life and health of the diver.
- (2) Permission shall be obtained in advance from the Governor before diving operations can commence.
- (3) Diving operations shall be carried out in a safe manner and in accordance with any directions of the Governor.

- (60) (1) Working areas shall at all times be kept as clean and free of obstacles as possible. Possible obstacles, protruding points, low ceiling and the like, shall be properly marked.
- (2) The drilling platform shall, as far as possible, be kept free of oil spillages.
- (3) The living quarters shall, at all times, be properly cleaned and kept in good order.

- (61) (1) First aid and resuscitating equipment shall be available at all times.
- (2) On each shift at least one member of the contractor's personnel shall have taken an approved first aid course.
- (3) The greatest possible number of the personnel shall be taught an approved method of artificial respiration.
- (4) Before drilling operations are started, arrangements shall be made to ensure that a doctor is available at all times for transport to the platform at the shortest possible notice.

- (62) (1) If a disease is detected on the platform which may be of contagious nature or otherwise be a risk to the health of the personnel or others, a doctor shall be