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| **Title and Preamble** | **THE PETROLEUM ACT, 2019 (No. 2 of 2019)**<br>**IN EXERCISE** of the power conferred by Sections 126 and 127 of the Petroleum Act, 2019, the Cabinet Secretary makes the following Regulations–<br>**PETROLEUM (UPSTREAM PETROLEUM OPERATIONS) REGULATIONS, 2024** |
| | **PART I – PRELIMINARY** |
| **Citation** | **1.** These Regulations may be cited as the Petroleum (Upstream Petroleum Operations) Regulations, 2025. |
| **Interpretation** | **2.**<br>(1) In these Regulations, unless the context requires-<br>"Act" means the Petroleum Act, 2019;<br>"Authority" means the Energy and Petroleum Regulatory Authority as established under the Energy Act, 2019;<br>"calibration" means the establishment of the relationship between the measured value and the reference value with known uncertainty;<br>"casing" means pipes installed in wells, the purpose of which is to isolate permeable intervals impregnated with fluids;<br>"contractor" has the meaning assigned to it in the Act;<br>"contract area" means the area covered by a petroleum agreement, and any such area as may be modified in accordance with the terms of the petroleum agreement, including through amendments, surrender, withdrawal, extension, or otherwise;<br>"critical equipment" means equipment and other systems determined to be essential in preventing the occurrence of or mitigating the consequences of an uncontrolled event including machinery, piping, blowout preventers, wellheads and related valves, flares, alarms, interlocks, fire protection equipment and other monitoring, control, and response systems;<br>"cuttings" means rock fragments from the drilling process;<br>"custody transfer" means the transfer of ownership or possession of petroleum from one party to another;<br>"data" means all qualitative or quantitative data, associated information, documents, reports and images including—<br>(a) raw data;<br>(b) edited or composite data;<br>(c) analyzed, interpreted or processed data;<br>(d) reprocessed data; and<br>(e) samples<br>whether in physical, digital or other format, obtained through upstream petroleum operations; |

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| | "decommissioning" means abandonment, recovery, removal and disposal, or if applicable re-deployment, of wells, flow lines, pipelines, facilities, infrastructure and assets related to upstream petroleum operations;<br><br>"development" means the planning, placement, construction and installation of facilities needed for production of petroleum;<br><br>"enhanced recovery" means the use or the expanded use of any process for the displacement of crude oil from an oil well other than primary and secondary recovery methods.<br><br>"escrow account" means an account used as a guarantee for financial obligations, subject to specific rules to be complied with fully by the parties;<br><br>“exploration” means the set of operations carried out in onshore or offshore blocks for data acquisition using geological, geochemical, geophysical exploration and appraisal wells or any other method with a view to locating petroleum deposits;<br><br>"facility" includes -<br><br>(a) any structure, device, roads, or other associated installations or infrastructure including pipelines, rail stations, pump stations, compressor stations and equipment constructed, placed or used in order to carry out upstream petroleum operations;<br><br>(b) vessel, vehicle or craft when stationary and used for drilling or support of on-going upstream petroleum operations; and<br><br>(c) vessel, vehicle or craft for transportation of petroleum in bulk when connected to a facility for loading of petroleum;<br><br>“field development plan” means a plan for the development of a commercial discovery prepared and approved pursuant to the Act and these regulations;<br><br>"fiscal metering" means metering carried out in connection with purchase, sale, and the calculation of taxes;<br><br>“fixed platform” means an offshore platform that is permanently fixed to a water body bed;<br><br>“hazard and operability study” means, a structured and systematic examination of a planned or existing process or operation in order to identify and evaluate problems that may present risks to personnel or equipment or prevent effective operation;<br><br>“in-field metering” means the measurement of produced fluids directly at the production site or within a field or Block for purposes of operations optimization, resource and cost allocation, as applicable.<br><br>“maximum efficient production rate” means the rate at which the maximum ultimate economic petroleum recovery is obtained from a commercial field without excessive rate of decline in reservoir pressure, and consistent with best petroleum industry practice;<br><br>"metering system" means the mechanical parts, instrument parts, sampling system and computer parts, as well as pertinent documentation and procedures, used for the fiscal measurement of production of petroleum;<br>"ministry" means the Ministry for the time being responsible for petroleum in Kenya and its successors; |

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| **Purpose and application** | **3.** (1) The Purpose of these Regulations is to provide requirements applicable to upstream petroleum operations, including activities of exploration, appraisal, development, production, abandonment, and decommissioning.<br>(2) These Regulations apply to upstream petroleum operations and upstream petroleum facilities located onshore and offshore of Kenya.<br>(3) These Regulations shall not apply to the midstream and downstream petroleum activities as defined in the Act unless explicitly provided in these Regulations. |
| | **PART II –EXPLORATION, APPRAISAL, DEVELOPMENT, PRODUCTION, ABANDONMENT AND DECOMMISSIONING OPERATIONS** |
| **Contractor's roles and responsibilities** | **4.** (1) A contractor, permit holder, sub-contractor or any person engaged in upstream petroleum operations shall comply with requirements of the Act, these Regulations and any other applicable law.<br>(2) A contractor, a permit holder or any person engaged in upstream petroleum operations shall ensure that all its subcontractors, employees and any other person acting for it complies with the Act, these Regulations, and any other applicable law. |
| | ***DIVISION 1 – EXPLORATION AND APPRAISAL OPERATIONS*** |
| | ***Sub-Division 1 - Contractor's exploration schedule*** |
| **Exploration period** | **5.** (1) The duration of an exploration period shall be defined in a petroleum agreement. An exploration period may be sub-divided into an initial exploration period, a first additional exploration period and a second additional exploration period.<br>(2) A contractor shall have a right to request the Cabinet Secretary in writing to enter a subsequent exploration period, subject to fulfilment of its minimum work and expenditure obligations as provided in a petroleum agreement.<br>(3) Where the Contractor exercises the right provided under sub-regulation (2), the contractor shall, not later than thirty (30) days prior to the expiration of an initial or additional exploration period, apply to the Cabinet Secretary in writing by providing the following information:<br>(a) request for approval to enter a subsequent exploration period;<br>(b) confirmation of the fulfilment of its minimum work and expenditure obligations accompanied by supporting documentation;<br>(c) the proposed area for surrender; and<br>(d) any other information as may be required.<br>(4) Upon receipt of a written request the Cabinet Secretary may, if satisfied that the contractor met the requirements specified in sub-regulation (3), grant a request to enter a subsequent exploration period in accordance with the petroleum agreement.<br>(5) Where a contractor fails to fulfil its minimum work and expenditure obligations, the Cabinet Secretary may reject the request to enter a subsequent exploration period and exercise its rights as provided in the petroleum agreement.<br>(6) Subject to sub-regulations 34(5) and (6) and upon application by a contractor, the Cabinet Secretary may, on justifiable reason, grant an extension to an exploration period provided that: -<br>(a) the application for an extension shall be made not later than ninety (90) days before the expiry of that exploration period.<br>(b) the cumulative durations of extensions granted within any exploration period shall not exceed fifty percent (50%) of the initial duration of that exploration period. |

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| | Notwithstanding paragraph (b) above, the Cabinet Secretary may grant an extension of less than fifty<br>percent (50%) of the initial duration of an exploration period. |
| **Surrender** | **6.** Any part of the contract area shall be relinquished in accordance with the Act and the petroleum agreement. |
| **Minimum exploration work and expenditure obligations** | **7.** (1) Upon commencement of an exploration period a contractor shall undertake exploration operations and fulfil the minimum exploration work and expenditure obligations in accordance with the petroleum agreement.<br>(2) The minimum exploration work and expenditure obligations may consist of the geological, geochemical and geophysical studies, seismic survey and the drilling of a particular number of exploration and appraisal wells and a commitment on a minimum expenditure.<br>(3) The content and the time limits for the fulfilment of the minimum exploration work and expenditure obligation shall be determined in the petroleum agreement.<br>(4) Where a contractor is in default of a contractor's minimum work and expenditure obligations, the Cabinet Secretary may, suspend or terminate the petroleum agreement and recall the provided performance security as provided in relevant petroleum agreements and any other law. |
| **Submission of an Annual work program and budget** | **8.** (1) A contractor shall only conduct petroleum operations in accordance with the approved annual work program and budget.<br>(2) A contractor shall submit and present to the Cabinet Secretary and the Authority the annual work program and budget in the first and subsequent years within the period specified in a petroleum agreement and the Act.<br>(3) Such submission and presentation shall be sixty (60) days after the execution date for the first contract year or three (3) months before the beginning of the year to which the programme shall apply for the subsequent years.<br>(4) The Contractor shall submit the Work Program and Budget and supporting documentation in both electronic format and hardcopies.<br>(5) Any costs incurred by the Contractor prior to the approval of the work program and budget shall not be recoverable. |
| **Annual work program and budget content** | **9.** (1) The Work Program and Budget submitted to the Cabinet Secretary shall include a technical and financial description of each type of petroleum operation in such form as may be prescribed by the Authority from time to time.<br>(2) Each Work Programme and Budget submitted to the Cabinet Secretary shall be consistent with the Minimum Work Programme and Expenditure Obligations set out in the respective petroleum agreement corresponding to the current Exploration Period.<br>(3) Each budget item in the annual work programme and budget shall outline, with sufficient detail, the following: -<br>(a) the cumulative expenditure projected at the end of each quarter of the budget year;<br>(b) the latest forecast of cumulative petroleum costs projected for the budget year; and<br>(c) the expenditure projected in subsequent years to complete the budget item.<br>(4) The annual work program shall contain:<br>(a) a summary of the actual activities performed in the previous contract year and, where any such activities have not been performed or have been partially performed, reasons for such non-performance. |

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| | (b) Activities to be performed and corresponding budget for the contract year<br>(5) Annual work program and budget shall contain:<br>(a) A status of participating interests<br>(b) Where applicable, status of surrender obligations<br>(c) Status of performance securities<br>(d) Status of annual payments<br>(e) Status of community development and social investment projects<br>(f) Status of any concluded and ongoing litigations and other legal risks related to the Petroleum Agreement |
| | **10.** The Authority shall within fifteen (15) days upon submission of the Work Program and Budget advise the Cabinet Secretary on its approval. |
| **Annual work program and budget approval** | **11.** (1) Upon receiving the Authority's advice, the Cabinet Secretary may approve or suggest any modifications to a proposed work programme and budget, he shall do so in writing within fifteen (15) days and forward the same to the contractor.<br>(2) Within fifteen (15) days a contractor shall consider the inclusion of such modifications and revisions considering best petroleum industry practice and submit to the Cabinet Secretary and the Authority the revised annual work programme and budget.<br>(3) Upon such submission under sub regulation (2) the Cabinet Secretary with the advisory of the Authority may approve the annual work program and budget submitted in writing within fifteen (15) days with or without conditions or, with reasons, reject the revised annual work program and budget.<br>(4) Any petroleum costs incurred by the Contractor prior to the approval of the annual work program and budget shall not be recoverable.<br>(5) Upon receipt of written approval from the Cabinet Secretary, the Contractor shall implement the approved annual Work Program and Budget. |
| **Amendment of approved work program and budget** | **12.** (1) A proposed amendment to the approved annual work program and budget shall be submitted to the Authority and Cabinet Secretary for approval together with justifications thereof.<br>(2) The submission referred to under sub-regulation 12) shall be applicable where:<br>(i) An operator envisages that expenditure in a budget item as approved in the work programme and budget will exceed 10%.<br>(ii) A contractor proposes material changes to an approved annual work program and budget.<br>(3) The provisions of Regulation 9 and 11 shall apply to proposed amendments to an approved Work Program and Budget *mutatis mutandis.*<br>(4) Upon such submission of the revised annual work programme and budget, the Cabinet Secretary with the advisory of the Authority may approve the revised annual work program and budget in writing within fifteen (15) days with or without conditions or, with reasons, reject the revised annual work program and budget. |
| | ***Sub-Division 2- Surveys*** |
| **Survey approval** | **13.** A contractor or a permit holder shall not conduct any survey without prior approval of the Authority. |

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| **Application process for survey approval** | **14.** (1) A contractor or a permit holder shall apply in writing to the Authority for approval of a survey not less than thirty (30) days prior to commencement of a survey. The application shall include the following information:<br>(a) a duly filled application form as provided in Schedule I;<br>(b) evidence of payment of applicable fee as prescribed in Schedule IX;<br>(c) a description, type and purpose of the survey to be conducted;<br>(d) a proposed distance or area to be covered by the survey;<br>(e) a proposed start date of the survey;<br>(f) an estimated duration of the survey;<br>(g) methodology and equipment to be used;<br>(h) name and address of the person conducting the survey where such person is not a contractor;<br>(i) name and contact details of the person who will have responsibility for communications with the Authority regarding the survey;<br>(j) a survey program comprising of-<br>(i) a brief description of the geology and pre-existing geophysical information relating to the area and its relationship to the objectives of the geological, geophysical or any other survey to be undertaken;<br>(ii) a map, of such type and scale acceptable to the Authority, of the operational area showing the proposed operational grid; and<br>(iii) an environmental impact assessment and emergency response plan for the areas where geological and geophysical operations are to be carried out.<br>(k) where a survey is conducted within or in the vicinities of environmental protection areas it shall be accompanied by a cadastral map in a form approved by the relevant authority demonstrating the boundaries of any such areas and their buffer zones where the survey is to be undertaken.<br>(2) The Authority may request a contractor or permit holder to provide additional information about the proposed survey. Such request shall be in writing and shall describe the information that is requested and prescribe the period within which such information shall be provided. |
| **Decision on application for survey approval** | **15.** (1) Within twenty-one (21) days of the Authority receiving the application and is satisfied that there is enough information to make a decision on contractor's or permit holder's application under sub- regulation 14(1), the Authority shall grant or reject the approval specifying the reasons for the decision.<br>(2) The Authority may grant an approval subject to terms and conditions detailed in the approval.<br>(3) A contractor or permit holder shall not transfer a survey approval except with the prior approval in writing of the Authority.<br>(4) A contractor or permit holder is required to conduct surveys in compliance with Kenya laws, standards, terms and conditions of the approval and to submit data and reports as provided in these Regulations. |

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| | (5) Where a contractor or permit holder intends to amend a survey programme, referred to under paragraph 14(1)(j), the contractor or permit holder shall submit the amended survey programme to the Authority for approval at least fourteen (14) days before implementing the proposed change. |
| | ***Sub-Division 3 - Drilling permit*** |
| **Drilling permit** | **16.** A contractor or permit holder shall not drill any well or conduct any drilling operations without a drilling permit for each well. |
| **Application process for drilling permit** | **17.** (1) A contractor or permit holder shall apply for a drilling permit to the Authority in writing not less than two (2) months prior to the commencement of any drilling operations.<br>(2) An application for a drilling permit shall include:<br>(a) a duly filled application form as provided in Schedule II;<br>(b) evidence of payment of applicable fees as prescribed in Schedule IX;<br>(c) the global positioning system (GPS) location of each well;<br>(d) a confirmation by a contractor of its ability to mobilise onshore or offshore drilling units and personnel, construct a well site, access roads to the well site, facilitate transportation of equipment, supplies, and materials to the well site during drilling, monitoring, appraisal and evaluation activities;<br>(e) a well plan that shall be prepared in compliance with the structure and contents provided in Schedule II; and<br>(f) a list of relevant stakeholders and the local community likely to be affected by the operations and their respective contact details. |
| **Processing of drilling permit application** | **18.** (1) The Authority shall-<br>(a) arrange for a public participation in compliance with Section 24 (8) of the Act and Regulation 23; and<br>(b) inform a contractor or permit holder in writing of the Authority decision within two (2) months after the receipt of the application and all supporting documentation. |
| **Criteria for issuing drilling permit** | **19.** (1) The Authority shall approve an application by issuing a drilling permit under Regulation 20 if the Authority is satisfied that:<br>(a) the information and the well plan include the information specified in Schedule II;<br>(b) the well plan is appropriate for the nature and scale of each well activity;<br>(c) the well plan shows that the risks identified by a contractor in relation to each well activity will be managed in accordance with any relevant law and best petroleum industry practices; and<br>(d) the way that each well activity will be carried out will not result in any new or increased detrimental risk to or effect on any operation.<br>(2) The Authority shall not approve a drilling permit if it is not satisfied that the well plan meets the requirements specified in Schedule II. |
| **Grant of drilling permit** | **20.** (1) A drilling permit issued by the Authority is subject to terms and conditions specified in such drilling permit<br>(2) The Authority may reject an application for a drilling permit to an applicant for reasons of:<br>(a) public safety, or<br>(b) any other reasonable justification. |

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| | (3) A drilling permit shall be valid for the period specified in the drilling permit and may be renewed.<br>(4) A person shall not transfer a drilling permit except with the prior approval in writing by the Authority.<br>(5) An application for the renewal of the drilling permit shall be made to the Authority by a contractor not later than thirty (30) days before the expiration of the drilling permit.<br>(6) An application for the renewal of the drilling permit shall be accompanied by the requirements in sub-regulation 17(2) and such other information as may be required by the Authority.<br>(7) A contractor shall execute well activities and drilling operations in compliance with applicable laws, best petroleum industry practices and terms and conditions of the drilling permit. |
| **Revision of drilling permit and well plan** | **21.** (1) A well plan approved by the Authority under these Regulations by issue of a drilling permit shall not be changed or modified without the prior approval of the Authority.<br>(2) A contractor or permit holder may apply to the Authority for the revision of a drilling permit explaining the reasons for changes or modifications and submit a revised well plan.<br>(3) A contractor or permit holder shall make an application under sub-regulation (2) for approval of a revision of the drilling permit and a well plan if any of the following circumstances exists –<br>(a) a change in the understanding of the geology or underground formation that may have a significant impact on the integrity of a well or a well activity to which the approved well plan relates, as determined in such plan;<br>(b) the occurrence or potential occurrence of a significant new detrimental risk to or effect on the integrity of a well or a well activity to which the approved well management plan relates, as determined in such plan;<br>(c) a significant increase in a detrimental risk to or effect on the integrity of a well or a well activity to which the approved well management plan relates as, determined in such plan; or<br>(d) any other substantial change. |
| **Well designation** | **22.** (1) Each well shall be identified by a unique designation which a contractor shall obtain from the Authority.<br>(2) The designation of a well may not be altered because a part of the hole was deviated, or the well was re-drilled to a lower target.<br>(3) (3) Notwithstanding sub-regulation (2), where a well exists but an additional wellbore is drilled directionally to a different target area, other prefixes, suffixes or any other additional letters or characters, shall be appended to the designation of the wellbore as shall be directed by the Authority. |
| | ***Sub-division 4- General provisions related to upstream petroleum operation permits*** |
| **Public Participation** | **23.** (1) The Authority shall within forty-five (45) days upon receipt of the permit application as prescribed under these Regulations: |

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| | (a) engage relevant stakeholders and the local community whose participation is desirable or whose interests may be affected by petroleum operations subject to the permit application and permitting activities;<br>(b) inform identified stakeholders and the local community of the scope of the permit application under consideration;<br>collect and facilitate feedback received from the stakeholders.<br>(2) The procedure and schedule adopted for public participation shall be appropriate to ensure a permitting application and any proposed operations are dully considered by relevant stakeholders. |
| **Permit cessation** | **24.** Any permit issued under these Regulations shall cease to be in force at the earliest of the following-<br>(a) when the Authority grants a permit that replaces the previously issued permit;<br>(b) when the Authority revokes a permit under regulation 27;<br>(c) on the expiry date stated in the permit; or,<br>(d) upon expiration or termination of the relevant petroleum agreement. |
| **Reasons for suspension, revocation of a permit** | **25.** The Authority may suspend or revoke a permit issued under these Regulations where—<br>(a) a contractor or permit holder has misrepresented any material facts during the permit application or issuance process;<br>(b) a contractor or permit holder has not complied with the Act, applicable regulations or a direction given by the Authority in relation to an issued permit;<br>(c) a contractor or permit holder has not complied with the terms and conditions of a permit or associated application documents, where applicable;<br>(d) when a contractor or permit holder requests permit cessation;<br>(e) a petroleum agreement or non-exclusive exploration permit is suspended or terminated, as the case may be; or<br>(f) the Authority is satisfied for any other reason that a permit should be suspended or revoked. |
| **Notice to suspend, or revoke a permit** | **26.** (1) Where the Authority considers it may be necessary to suspend or revoke a permit issued under these Regulations, the Authority shall, at least thirty (30) days prior to suspension or revocation —<br>(a) give a contractor or permit holder a written notice stating the Authority's intention to suspend or revoke a permit; and<br>(b) include in the notice —<br>(i) an explanation of the reasons why the Authority is considering the suspension or revocation;<br>(ii) a date by which a contractor may give the Authority any information that a contractor wants the Authority to consider before deciding whether to suspend, or revoke a permit; and<br>(iii) any other information that the Authority considers appropriate.<br>(2) In exceptional circumstances, the Authority may suspend or revoke a drilling permit without a notice, where the reasons justify such immediate suspension or revocation. |

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| **Decision on suspension or revocation of permit** | **27.** (1) If the Authority gives a contractor a notice under paragraph 26(1)(a), the Authority shall, within twenty-one (21) days after the date mentioned in sub-paragraph 25(1)(b)(ii) has passed —<br>(a) suspend or revoke a permit; or<br>(b) decide not to suspend or to revoke a permit.<br>(2) The Authority shall not suspend or revoke a permit issued under these Regulations unless the Authority —<br>(a) has taken all information provided under sub- paragraph 26(1)(b)(ii) into account; and<br>(b) is satisfied that a reason for suspension or revocation under sub-paragraph 26(1)(b)(i) exists.<br>(3) Fourteen (14) days after making a decision under sub- regulation (1), the Authority shall notify a contractor in writing of the decision.<br>(4) If the decision is to suspend or to revoke a permit the notice shall specify —<br>(a) the date on which the suspension or revocation of a permit takes effect; and<br>(b) the reasons for the decision. |
| | ***Sub-division 5 - Methods and procedures for drilling wells*** |
| **Well barriers** | **28.** (1) A contractor or permit holder shall ensure that well barriers are designed to ensure well integrity and that the barrier functions are safeguarded during the lifetime of a well.<br>(2) Well barriers shall be designed to ensure that unintended well influx and outflow between formations and to the external environment is prevented.<br>(3) At least two (2) independent barriers shall be installed during all well activities and operations, including for suspended or abandoned wells.<br>(4) The well barriers shall be designed to ensure that their performance can be verified in accordance with Kenya Standards or best petroleum industry practices as approved by the Authority.<br>(5) During drilling and well operation, well barriers shall be tested by an independent and competent entity approved by the Authority.<br>(6) If one barrier fails, activities shall not be carried out in the well other than activities intended to restore or replace the barrier which has failed.<br>(7) A contractor or permit holder shall ensure that pumping and fluid capacity is available on the facility or on vessels in the event of well intervention.<br>(8) The need for pumping and fluid capacity in the event of well intervention referred to under sub-regulation (7) shall be included in the activity-specific risk assessment. |
| **Well control** | **29.** (1) A contractor or permit holder shall ensure that well control equipment is designed and capable of activation in a manner that ensures both barrier integrity and well control in accordance with Kenya Standards or best petroleum industry practices as approved by the Authority.<br>(2) When drilling a top-hole section through risers or conductors, equipment shall be installed with a capacity to divert shallow gas and formation fluids away from the well site. |

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| | (3) The pressure control equipment used in well interventions shall have remotely controlled valves with mechanical locking mechanisms in the open position.<br>(4) Well intervention equipment shall have a remotely controlled blind shear ram as close to the christmas tree as possible.<br>(5) Floating facilities shall have an alternative activation system for activating critical functions of the blowout preventer for use in the event of an evacuation.<br>(6) Floating facilities shall have the capacity to disconnect the riser package after the blind shear ram has cut the work string.<br>(7) A contractor or permit holder shall ensure that in the event of loss of well control, it is possible to regain well control by intervening directly or by drilling a relief well.<br>(8) A contractor or permit holder shall prepare and submit tothe Authority for approval an action plan describing how the lost well control can be regained. |
| **Shallow gas and shallow formation fluids** | **30.** (1) A contractor or permit holder shall implement measures to handle conditions when shallow gas or other formation fluids are found.<br>(2) When drilling in shallow formations, the selection of well design and drilling parameters shall ensure the prevention of gas or formation fluid from the well which pose a threat to personnel and facilities.<br>(3) The measures put in place by a contractor or permit holder under these Regulations shall be in in accordance with Kenya Standards and best petroleum industry practices approved by the Authority. |
| **Suspended wells** | **31.** (1) Where a well has been suspended, the contractor or permit holder shall permanently plug petroleum-bearing zones and abandon the well within three (3) years unless the well is continuously monitored.<br>(2) A contractor or permit holder shall ensure that it is possible to monitor well integrity of a suspended well.<br>(3) A contractor or permit holder shall not abandon radioactive sources in the well and where radioactive source cannot be removed, it shall be abandoned in a manner that ensures safety to human health and the environment and in accordance with relevant laws, and best petroleum industry practices as approved by the Authority.<br>(4) To the extent possible the location of a suspended well shall be restored to the original site condition. |
| **Specific requirements for testing of blowout preventer and other pressure control equipment** | **32.** (1) A contractor or permit holder shall ensure that choke and choke manifold are pressure tested in accordance with Kenya Standards and best petroleum industry practices approved by the Authority.<br>(2) The blowout preventer with associated valves and other pressure control equipment on the facility shall be pressure tested and function tested in accordance with Kenya standards and best petroleum industry practices approved by the Authority.<br>(3) A contractor or permit holder shall ensure that the blowout preventer and associated valves and other pressure control equipment on the facility undergo a complete inspection by a competent body approved by the Authority every five (5) years.<br>(4) A contractor or permit holder shall develop and provide to the Authority a blowout contingency plan. |

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| | ***Sub-division 6 - Discovery, commerciality and appraisal*** |
| **Discovery of petroleum** | **33.** Where the presence of petroleum within a reservoir is encountered during drilling operations, and the petroleum is shown to be producible, the petroleum accumulation shall be considered a discovery. |
| **Notification of discovery and initial discovery report** | **34.** (1) A contractor is required within forty-eight (48) hours to notify the Cabinet Secretary of any such discovery of petroleum or other minerals in the relevant contract area in compliance with section 27 of the Act. The notification shall include the following information:<br>(a) a contract and a block number in which the discovery was made;<br>(b) name of the discovery well; and<br>(c) data or information used to confirm the discovery.<br>(2) Not later than sixty (60) days after the notification made in sub-regulation (1), the contractor shall complete and test such exploration well and shall, within thirty (30) days after completion and testing, submit an initial discovery report. The initial discovery report shall include information which was submitted in the original notification specified in sub-regulation (1) and the following information:<br>(a) the rate or quantity of production of petroleum and water from the discovery well; and<br>(b) the physical and chemical properties of the petroleum from the discovery well that have been determined.<br>(3) Where the contractor considers that a discovery merits appraisal, the contractor shall obtain approval of its proposed<br>appraisal work programme and budget from the Cabinet Secretary in accordance with the relevant petroleum agreement.<br>(4) The contractor shall commence execution of the approved appraisal work programme and budget within sixty (60) days upon approval by the Cabinet Secretary.<br>(5) Where the appraisal period commences in the initial exploration period or first additional exploration period, the contractor shall expeditiously undertake and complete the approved appraisal work programme and budget with respect to the discovery within a period reasonably required to determine whether or not the discovery is commercial, but in any event, such period shall not go beyond the second additional exploration period.<br>(6) In the event of a discovery in the last year of the second additional exploration period, the Cabinet Secretary shall, at the request of the contractor, extend the term of the second additional exploration period in respect to the prospective area of the discovery and for the period of time reasonably required to expeditiously complete the approved appraisal work programme and budget with respect to such discovery and to determine whether or not the discovery is commercial, but in any event, such extension to the second additional exploration period shall not exceed two (2) years.<br>(7) Notwithstanding sub-regulation 5(6), an approved appraisal work programme and budget obligations shall be in addition to, and shall not discharge the contractor from, its respective minimum work and expenditure obligations under a petroleum agreement.<br>(8) A contractor shall conduct a separate appraisal for each discovery unless otherwise decided by the Cabinet Secretary or as otherwise provided for in the relevant petroleum agreement. |

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| | (9) Where a contractor decides that a discovery does not merit an appraisal the discovery area shall be relinquished in accordance with the Act, applicable regulations and the petroleum agreement. |
| **Commerciality** | **35.** (1) Within ninety (90) days from completing appraisal work, a contractor shall determine whether the discovery is a commercial discovery or not and notify the Cabinet Secretary in accordance with sub-regulation 35(2). The decision to declare commerciality shall be based on best petroleum industry practice and at the discretion of a contractor based on the result of the appraisal operations.<br><br>(2) Upon completion of the appraisal work, a contractor shall submit an appraisal report in addition to the declaration of commerciality if any, ensuring that the appraisal report includes all available technical and economic data relevant to determination of commerciality, including:<br><br>(a) location and areal extent of commercial discovery<br><br>(b) geological and geophysical conditions, which may be in the nature of structural configuration;<br><br>(c) physical properties and the extent of reservoir rocks, areas, thickness and depth of pay zones, pressure, volume and temperature analysis of the reservoir fluids;<br><br>(d) preliminary estimates of crude oil or natural gas reserves;<br><br>(e) recovery drive mechanisms;<br><br>(f) anticipated production performance per reservoir and per well; and<br><br>(g) fluid characteristics, including API gravity, sulphur percentage, sediment, wax, asphaltenes, $CO_2$ and water percentage and refinery assay pattern.<br><br>(3) The Cabinet Secretary may request a contractor to provide additional information as required.<br><br>(4) Where a contractor does not declare that discovery is commercial, the discovery area shall be relinquished except for cases provided in the Act and respective petroleum agreement. |
| **Development area** | **36.** (1) When a commercial discovery is declared, a contractor shall establish a preliminary demarcation of the proposed development area on a map which shall correspond as closely as possible to the extent of the field or fields within the contract area.<br><br>(2) The final development area shall be established under the approved field development plan.<br><br>(3) An approved development area shall only be altered with prior approval from the Cabinet Secretary when-<br><br>(a) a new field or fields are discovered under or overlying the deposit(s) included in the area already demarcated;<br><br>(b) the Cabinet Secretary, on the basis of technical and/or economic reasons provided by a contractor, authorises two separate fields to be developed jointly in accordance with provisions in the Act, petroleum regulations and petroleum agreements. |
| | ***DIVISION2 – FIELD DEVELOPMENT OPERATIONS*** |

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| | ***Sub-division 1 - Field development plan*** |
| **Development operations** | **37.** A contractor shall not commence development operations without prior approval of the field development plan and receipt of all other permits, approvals and consents that may be required under applicable Kenya laws or petroleum agreements. |
| **Field development plan** | **38.** (1) Where a discovery is declared commercial, a contractor shall prepare and submit to the Authority a field development plan for the field(s) within one hundred and eighty (180) days from the declaration of commerciality or within the period specified in the petroleum agreement or as otherwise agreed by the Authority and Cabinet Secretary.<br>(2) A field development plan shall-<br>(a) be based on sound engineering and economic principles and in accordance with best petroleum industry practices and considering the maximum efficient rate of production appropriate to the commercial discovery, and<br>(b) shall comply with requirements of section 30 of the Act, the petroleum agreement and Schedule III of these Regulations.<br>(3) With submission of a field development plan a contractor shall enclose the evidence of payment of applicable fees as prescribed in Schedule IX. |
| **Approval of field development plan** | **39.** (1) The Authority shall review the contents of the field development plan submitted by a contractor and where any of the items required under sub-regulation 38 (2) are missing, the Authority shall notify a contractor to submit any such missing items.<br>(2) As soon as practicable after receipt of a content compliant field development plan the Authority shall commence assessing the field development plan over the period specified in the petroleum agreements and make recommendations to the Cabinet Secretary on approval, amendment or rejection of the field development plan in accordance with the petroleum agreement(s).<br>(3) Upon receipt of Authority's recommendations on the field development plan, the Cabinet Secretary shall undertake further assessment of the plan and shall approve or reject such plan as soon as practicable, but not later than sixty (60) days upon receipt of the Authority's recommendations. |
| **Criteria for approval of field development plan** | **40.** (1) The Cabinet Secretary shall approve a field development plan if the Cabinet Secretary is satisfied that —<br>(a) the plan includes the information required under sub- regulation 38(2);<br>(b) the plan demonstrates that the applicant will manage the field —<br>(i) in accordance with sound engineering principles, codes, standards and specifications;<br>(ii) in a manner that is consistent with best petroleum industry practices; and<br>(iii) compatible with optimum long-term recovery of the petroleum.<br>(c) All applicable laws have been complied with.<br>(2) Where the Cabinet Secretary is not satisfied that the plan meets the requirements of sub-regulation (1), the Cabinet Secretary shall within thirty (30) days |

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| | notify the Authority and the contractor requesting modifications within a specified period.<br><br>(3) Upon making modifications to the field development plan in accordance with the notification of a Cabinet Secretary, a contractor shall resubmit the modified field development plan to the Cabinet Secretary via the Authority for approval.<br>(4) The Cabinet Secretary in approving a field development plan may approve it with attached terms and conditions that a contractor shall comply with. |
| **Ratification of field development plan** | **41.** (1) The Cabinet Secretary shall upon approval of the field development plan submit it to the Parliament for ratification in accordance with Section 31 of the Act.<br><br>(2) Upon ratification of the field development plan in accordance with sub-regulation (1) a contractor shall proceed promptly and without undue delays, and in any case not later than one hundred and eighty (180) days, to commence the implementation of the development works in accordance with the development plan and the development and production work programme and budget approved in accordance with Regulation 11. |
| **Submission of Annual development and production work program and budget** | **42.** (1) A contractor shall only conduct development and production petroleum operations in accordance with an approved annual development and production work program and budget.<br>(2) A contractor shall submit and present to the Cabinet Secretary and the Authority the annual development and production work program and budget upon ratification of the field development plan and each subsequent year, in accordance with sub-regulation (3).<br>(3) An initial development work programme and budget shall be presented to the Cabinet Secretary and the Authority sixty (60) days after the approval and ratification of the FDP or, in the case of a subsequent development and production work programme and budget, three (3) months before the beginning of the year to which the programme relates.<br>(4) The Contractor shall submit the development and production work program and budget and supporting documentation in both electronic format and hardcopies.<br>(5) Any costs incurred by the Contractor prior to the approval of the development and production work program and budget shall not be recoverable. |
| **Contents of Annual development and production work program and budget** | **43.** (1) The annual development and production work program and budget submitted to the Cabinet Secretary and the Authority shall include a technical and financial description of each type of petroleum operation in such form as may be prescribed by the Authority from time to time.<br>(2) Each annual development work programme and budget shall be consistent with the obligations set out in the respective approved and ratified field development plan or revised field development plan as the case may be.<br>(3) Each budget item in the annual development and production work programme and budget shall outline, with sufficient detail, the following: -<br>(a) the cumulative expenditure projected at the end of each quarter of the relevant contract year;<br>(b) the latest forecast of cumulative petroleum costs projected for the relevant contract year; and<br>(c) the expenditure projected in subsequent years to complete the budget item.<br>(4) The annual development and production work program and budget shall contain the following information: |

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| | (a) a status of participating interests;<br>(b) a summary of the actual activities performed in the previous contract year and, where any such activities have not been performed or have been partially performed, the reasons for such non-performance;<br>(c) activities to be performed and the corresponding budget for the relevant contract year;<br>(d) with respect to production, the requirements under Schedule V;<br>(e) where applicable, the status of surrender obligations;<br>(f) where applicable, the status of performance securities;<br>(g) the status of annual payments;<br>(h) the status of community development and social investment projects;<br>(i) the status of any concluded and ongoing litigations and other legal risks related to the Petroleum Agreement; and<br>(j) any other information as the Cabinet Secretary or Authority may require. |
| **Approval of annual development and production work program and budget** | **44.** The approval of the submitted annual development and production work program and budget shall be in accordance with the provisions of Regulation 11. |
| **Amendment of Annual development and production work program and budget** | **45.** (1) A proposed amendment to the approved annual development and production work program and budget shall be submitted to the Authority and Cabinet Secretary for approval together with justifications thereof.<br>(2) The submission referred to under sub-regulation (1) shall be applicable where:<br>(i) An operator envisages that expenditure in a budget item as approved in the work programme and budget will exceed 10%.<br>(ii) A contractor proposes material changes to an approved annual work program and budget.<br>(3) Upon such submission of the revised development work programme and budget, the Cabinet Secretary with the advisory of the Authority may approve the revised annual development and production work program and budget in writing within fifteen (15) days with or without conditions or, with reasons, reject the revised annual work program and budget. |
| **Revision of field development plan** | **46.** (1) A contractor shall only make a variation or alteration to an approved field development plan in accordance with these Regulations.<br>(2) A contractor shall apply to the Authority for approval of a revision to an approved field development plan in case of significant deviation in or alteration of the terms and conditions under which a field development plan has been approved as well as any significant alteration of plan, facilities, or use of the facilities. The application shall be accompanied by the proposed revision.<br>(3) A deviation is considered significant when— |

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| | (a) A contractor proposes to make changes in the development strategy or management strategy of the field;<br>(b) A contractor proposes to make changes to the number, inclusion or exclusion of field or fields;<br>(c) Cessation of production, permanently or for the long term, before the date proposed in the field development plan;<br>(d) A contractor proposes a change or a new method for the petroleum recovery, such as enhanced recovery and injection of fluids, where such change would result or results in a significant increase in cost;<br>(e) A contractor proposes to make any change that requires a revision of the technical configuration and design, design of facilities and economic aspects of the project which would result or results in a 10% increase in cost;<br>(f) Any other proposed change that the Authority considers significant. |
| **Decision on application for approval of revision of field development plan`** | **47.** (1) The Authority shall consider an application made under sub-regulation 46(2) within sixty (60) days of submission thereof and may, within that period, request a contractor to provide additional information.<br>(2) The Cabinet Secretary shall within twenty-one (21) days upon advise from the Authority, consider the revision of the field development plan.<br>(3) The Cabinet Secretary may approve the revision of the field development plan subject to terms and conditions that a contractor shall be required to comply with.<br>(4) The Cabinet Secretary shall, within fourteen (14) days of the approval of the revision of the field development plan, submit the revised field development plan to Parliament for ratification in accordance with section (31) of the Act. |
| | ***Sub-division 2 - Permit to construct upstream petroleum facilities and design approval*** |
| | **48.** Unless the context otherwise requires, this Sub-division shall apply to the construction, operation and maintenance of upstream petroleum facilities. |
| **Permit to construct upstream petroleum facilities** | **49.** (1) A contractor or permit holder shall apply to the Authority for a permit to construct upstream petroleum facilities.<br>(2) A permit to construct upstream petroleum facilities falling under sub-regulation (1) shall include among others -<br>(a) petroleum gathering facilities;<br>(b) petroleum storage and handling facilities;<br>(c) petroleum processing facilities;<br>(d) other facilities that may be required under the Act. |
| **Application process for permit to construct upstream petroleum facilities** | **50.** (1) A contractor or permit holder shall apply for a permit to construct upstream petroleum facilities to the Authority in writing not less than three (3) months prior to commencement of any construction operations;<br>(2) A contractor, and where applicable a permit holder, shall provide the following in the application under sub-regulation (1)<br>(a) an application form as provided in Schedule IV;<br>(b) evidence of payment of applicable fees as prescribed in Schedule IX; |

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| | (c) design of the facility approved by the relevant authorities of Kenya that is based on sound engineering and economic principles and in accordance with best petroleum industry practice and applicable Kenya laws. Such design shall include:<br>(i) the Front-End Engineering Design and<br>(ii) Detailed Engineering Design documents, including piping and instrumentation design document.<br>(d) a copy of the applicant's design-standard policy;<br>(e) a plot plan of the site and an equipment list showing the equipment to be installed;<br>(f) an annex of the codes and standards applicable to the construction of the facility;<br>(g) all processes and procedures required to deliver safe construction and operation of the facilities;<br>(h) where applicable, a hazard and operability (HAZOP) study and an environmental impact assessment license for the proposed facilities and operations approved in accordance with Kenya laws;<br>(i) a copy of all other relevant approvals, authorisations, licences and permits required under applicable Kenya law to commence building, construction or installation processes; and<br>(j) any other information that the Authority may require. |
| **Processing of permit application to construct upstream petroleum facilities** | **51.** The Authority shall -<br>(a) review the application submitted by a contractor or permit holder and where any of the items required under sub-regulation 50(2) are missing, the Authority shall notify a contractor or permit holder to submit the missing items;<br>(b) arrange for a public participation in compliance with Sub-section 24 (8) of the Act and Regulation 23; and<br>(c) inform a contractor or permit holder in writing of the decision of the Authority within two (2) months after the receipt of the application and all required documentation. |
| **Criteria for issuing permit to construct upstream petroleum facilities** | **52.** (1) The Authority shall approve an application under regulation 49 by issuing a permit if the Authority is satisfied that –<br>(a) submitted application contains information specified in Schedule IV and accompanied with all documentation required under sub-regulation 50(2);<br>(b) a contractor or permit holder has all necessary processes and procedures in place to deliver safe construction and operations of facilities;<br>(c) an environmental impact assessment license for the proposed facilities and operations has been approved in accordance with Kenya law; and<br>(d) a contractor or permit holder has provided any other information as may be requested by the Authority.<br>(2) The Authority may at its discretion approve or reject an application for a permit to construct upstream petroleum facilities and shall, upon rejection of an application, provide reasons thereto. |
| **Issuance of a permit to** | **53.** (1) An upstream petroleum facility construction permit shall be for the period specified in the permit which may be renewed. |

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| **construct upstream petroleum facilities, duration and renewal** | (2) An upstream petroleum facility construction permit issued by the Authority shall be subject to terms and conditions specified in such permit.<br>(3) A contractor or permit holder is required to conduct construction operations in compliance with applicable Kenya laws, standards, best petroleum industry practices approved by the Authority.<br>(4) A person shall not transfer an upstream petroleum facility construction permit except with the prior approval in writing of the Authority. Such application shall include: -<br>i. Permit number<br>ii. Official company search<br>iii. Technical and financial capability of the transferee<br>(5) Where applicable, an application for the renewal of the upstream petroleum facility construction permit shall be made to the Authority by a contractor or permit-holder not later than sixty (60) days before the expiration of the existing permit with justification of extension required. |
| **Revision of permit to construct upstream petroleum facilities** | **54.** (1) An upstream petroleum facility construction permit issued by the Authority under these Regulations shall not be changed or modified without the prior approval of the Authority.<br>(2) A contractor or permit holder may apply to the Authority for the revision of an upstream petroleum facility construction permit accompanied by the documents required under sub-regulation 50(2) explaining the reasons for changes or modifications |
| **Design approval of upstream facilities** | **55.** (1) A contractor or permit holder shall prior to commencement of construction, building or installation of the upstream facilities located onshore or offshore submit to the Authority the final designs and plans or construction works for approval.<br>(2) The contractor or permit holder shall seek any other necessary approvals from relevant authorities in compliance with Kenyan law.<br>(3) For facilities specified in sub-regulation 49(2) a contractor or permit holder shall seek an approval of design during the process of applying for a upstream petroleum facility construction permit.<br>(4) A contractor shall submit to the Authority for approval documents specified in sub-regulation 50(2).<br>(5) A contractor shall pay the design approval fee as prescribed in Schedule IX and include evidence of such payment in the submission of designs for approval<br>(6) For the avoidance of doubt, a contractor or permit holder shall remain liable for the designs, plans, construction, and installation works associated with an upstream onshore or offshore facility. |
| | ***Sub-division 3 - Requirements for design, construction, and installation of onshore upstream petroleum facilities*** |
| **General requirements for design of onshore upstream petroleum facilities** | **56.** (1) A contractor or permit holder shall ensure that onshore upstream petroleum facilities are designed, constructed, supplied, installed and maintained in compliance with applicable Kenyan laws and best petroleum industry practices as approved by the Authority.<br>(2) In designing petroleum facilities and selecting appropriate material and equipment a contractor shall comply with Kenya standards or best petroleum industry practises approved by Authority. |

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| | (3) During the design and fabrication of process and auxiliary facilities, human factors and technical safety requirements as well as environmental sustainability shall be taken into account.<br>(4) A contractor shall ensure that the choice and location of a facility and its components is based on a hazard and operability (HAZOP) study, area classification and ventilation assessment.<br>(5) A contractor shall ensure that the facility is in as far as reasonably practicable designed with redundancy in the vital operating and safety systems.<br>(6) A contractor or permit holder shall ensure that during design—<br>(a) equipment and materials used for process and auxiliary facilities are fit for purpose;<br>(b) equipment and facilities are secured against abnormal loads, including dimensioning accidental events;<br>(c) account is taken of the environment in which the installations are to be placed and to which they are subjected; and<br>(d) probable changes in future operational conditions are considered.<br>(7) A contractor shall ensure that facility design considers provisions for future monitoring and maintenance. |
| **Valves and actuators** | **57.** (1) Valves and actuators shall be designed and produced in such a way as to be able to withstand the loads to which they may be subjected.<br>(2) Valves and actuators which are part of an emergency shutdown system shall be able to resist the dimensioning fire and explosion loads to which they may be subjected.<br>(3) Valves with great significance to safety shall be tested in accordance with standards approved by the Kenya Bureau of Standards and best petroleum industry practices approved by the Authority.<br>(4) There shall be two levels of safety with functionally different types of safety devices to offer protection for abnormal loads. |
| **Rotating machinery** | **58.** (1) A contractor shall ensure that rotating machinery is compliant with the requirements of Kenya standards and best petroleum industry practices approved by the Authority.<br>(2) When choosing rotating machinery, a contractor shall ensure that —<br>(a) consideration shall be given to reliability, energy efficiency, ease of operation and maintenance, previous experience with the machinery;<br>(b) preference shall be given to utilizing the latest technology available without detrimentally affecting other relevant considerations;<br>(c) the rotating machinery and its components shall be designed and installed to ensure that it does not cause unacceptable risk to people, property and to the environment;<br>(d) the rotating machinery and its components shall at maximum operational load withstand the environmental loads to which it may be subjected;<br>(e) rotating machinery intended to be functioning during accident situations, shall be protected against destruction by dimensioning loads from fire, explosion and accident;<br>(f) rotating machinery performing critical functions shall be fitted with equipment monitoring critical parameters, such as pressure, temperature and vibrations; |

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| | (g) foundations with supporting structures shall have sufficient strength and rigidity to prevent harmful deformations and reduce vibrations;<br>(h) a shut-in valve on the inlet to pumps in light hydrocarbon or crude service should be installed;<br>(i) combustion engines are fitted with an automatic device to prevent the engine from over speeding in the event that inflammable gas is sucked into the air inlet;<br>(j) if a water-cooled spark arrestor is used, a signal is given in the control room in the event of a water supply failure;<br>(k) air exchangers and drive shafts need to be properly enclosed to prevent personnel injury;<br>(l) combustion engines and turbines are supplied with combustion air from non-hazardous areas;<br>(m) exhaust gas is conveyed to separate non-hazardous areas and exhaust gas ducts shall be designed in such way that possible sparks from the combustion will not become an ignition source;<br>(n) exhaust gas is to the extent possible emitted away from the installation, so as not to cause inconvenience to people or cause hazardous situations;;<br>(o) for compressors, a check valve should be placed downstream of the final discharge stage to prevent backflow in the event of a leak or piping failure;<br>(p) relief valves shall be placed on the inlet scrubber(s) and downstream of each stage of compression;<br>(q) high/low pressure switches shall be placed on the inlet and outlet of each stage;<br>(r) high temperature shutdowns shall be placed on the discharge of each compressor stage;<br>(s) electric motors shall adhere to Kenya standards and best petroleum industry practices approved by the Authority.<br>(t) totally enclosed frame motors shall adhere to Kenya standards and best petroleum industry practices approved by the Authority and shall be explosion proof and supplied with positive-pressure ventilation from a source of non-contaminated air. |
| **Consideration of materials during design** | **59.** (1) When selecting materials for a facility and auxiliary facilities during the design, a contractor and permit holder shall consider the loads and environmental conditions that may be experienced during fabrication, installation, maintenance and operation.<br>(2) A contractor and permit holder shall, in selecting materials for a facility or auxiliary facilities—<br>(a) consider its compatibility with process fluids and operating conditions;<br>(b) ensure that materials meet requirements of Kenya standards and best petroleum industry practices approved by the Authority regarding strength, ductility, durability, toughness, corrosion, erosion, and other forms of decay of materials, where applicable;<br>(c) consider the fire resistance attributes of the materials , where applicable; and<br>(d) ensure that, where new materials are introduced, the material is verified by means of necessary analyses, calculations and tests so that stipulated safety criteria and compatibility considerations are met.<br>(3) During operation, a contractor shall continually monitor facilities and installations to mitigate or maintain the required parameters specified in these Regulations . |

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| **Requirements for process and auxiliary facilities** | **60.** (1) Design of process and auxiliary facilities shall be in accordance with sound engineering principles and best petroleum industry practices; flow rates and capacities for the facilities shall be specified in relation to reaction times and capacity. Additionally, the reliability of control systems and operational aspects, the vibration and noise levels, pressure fluctuations and water hammer effects shall be taken into account.<br>(2) During the design of process and auxiliary facilities, a contractor or permit holder shall consider planned manning levels, operation and maintenance suitability.<br>(3) A contractor or permit holder shall ensure that process and auxiliary facilities are designed so that efficiency and reliability is maintained at the lowest and highest design capacities, temperatures and pressures.<br>(4) A contractor or permit holder shall take measures to ensure that instrumentation and control equipment for process and auxiliary facilities has two levels of safety and a high level of reliability.<br>(5) Process and auxiliary facilities shall be fitted with devices for pressure relief offering protection against overpressure.<br>(6) Pressure vessels shall be inspected and maintained periodically to ensure the integrity of the vessels.<br>(7) Drainage devices shall be designed to avoid accidental outflow of petroleum and other fluids.<br>(8) The risk of self-ignition or pyrolysis shall be assessed in connection with the choice of materials and procedures for inspection and maintenance.<br>(9) In designing process and auxiliary facilities, the effect of anticipated changes in the petroleum characteristics over time shall be taken into consideration.<br>(10) Process and auxiliary facilities shall be designed so that auxiliary facilities are not negatively affected by the process facilities. |
| **Pneumatic facilities** | **61.** (1) A contractor shall stipulate limit values for dew point, purity, pressure variations and temperature of the air.<br>(2) The facilities shall have adequate compressor and receiver capacity to ensure stable operational conditions.<br>(3) A facility shall be designed and equipped to meet the emission levels set out in Kenyan laws, standards and best petroleum industry practices approved by the Authority. |
| **Heating facilities** | **62.** (1) Heating facilities including boilers, vessels, heat exchangers and pipe installations shall be designed in accordance with Kenyan laws, standards and best petroleum industry practices approved by the Authority.<br>(2) Where flammable heating media are used, a contractor shall put in place measures to ensure that no ignition occurs in the event of leakage from the facilities.<br>(3) A contractor shall employ heat recovery on process effluents.<br>(4) A contractor shall carry out energy audits to ensure efficiency in accordance with Kenyan laws. |
| **Inert gas facilities** | **63.** A contractor shall ensure that inert gas facilities are designed—<br>(a) in accordance with Kenyan laws, standards and best petroleum industry practices approved by the Authority so that the choice of |

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| | location takes into consideration possible consequences of leakages;<br>(b) with instrumentation for detection of inert gas leakages;<br>(c) to protect structures that may be cooled down by leakages from vessels containing inert gas in liquid form;<br>(d) to ensure that hoses and couplings used for liquid inert gas are fit for purpose; and<br>(e) to ensure hose couplings for distribution of inert gas are of a special type different from other couplings. |
| **Hazard and operability study** | **64.** (1) A facility design shall be subjected to a safety analysis function evaluation chart and hazard and operability (HAZOP) study before the completion of the detailed design and upon modification of an existing facility.<br>(2) An authorised officer of the Authority shall be present at the reviews under sub-regulation (1).<br>(3) A detailed facility design and the piping and instrumentation diagram shall be made available for review. |
| | ***Sub-division 4 - Requirements for design, construction, and installation of offshore upstream petroleum facilities*** |
| **General requirements for design of offshore facilities** | **65.** (1) A contractor shall ensure that offshore petroleum facilities are designed, constructed, supplied, installed and maintained in compliance with applicable Kenyan laws, standards and best petroleum industry practices approved by the Authority to guarantee the safety and operability of the facility.<br>(2) In designing offshore petroleum facilities and selecting appropriate material and equipment a contractor shall comply with Kenyan laws, standards and best petroleum industry practices approved by the Authority.<br>(3) All installations shall be fabricated from fit for purpose material of adequate strength.<br>(4) During design and fabrication of process and auxiliary facilities, the safety and securing of personnel, the environment and material assets shall be considered.<br>(5) A contractor shall ensure that the choice and location of an offshore facility and its components is based on a risk analysis, area classification and ventilation.<br>(6) A contractor shall ensure that an offshore facility is in as far as reasonably practicable designed with redundancy in the vital operating and safety systems.<br>(7) A contractor shall ensure that during design of offshore facilities -<br>(a) equipment and materials used for process and auxiliary facilities are suit for purpose;<br>(b) equipment and facilities are secured against abnormal loads, including dimensioning accidental events; |

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| | (c) account is taken of the environment in which the installations are to be placed and to which they are subjected;<br>(d) probable changes in future operational conditions are considered;<br>(e) electrical installations either contained in explosion- proof enclosures, be intrinsically safe, or be purged and pressurized.; and<br>(f) control systems allow for gas detection systems to automatically shut down the facility in high gas leakage levels.<br>(8) A facility design shall be subjected to a safety analysis function evaluation chart and hazard and operability (HAZOP) study in accordance with regulation 64.<br>(9) A contractor shall notify relevant authorities about the location of fixed and mobile platforms and required changes to shipping lanes, navigation aids and nautical charts. A contractor shall comply with all relevant Kenyan Laws and obtain all relevant approvals and permits. |
| **Application for permit to construct, install fixed platform or to place mobile platforms offshore** | **66.** (1) Notwithstanding the provisions of regulation 65, an application for a permit to construct or install a fixed or mobile platform shall be made in writing and shall—<br>(a) state the location at which it is intended to be constructed, installed or placed;<br>(b) state the reasons, including the geological evidence, for the selection of that location;<br>(c) be accompanied by copies of an equipment arrangement plan and reports, recommendations and criteria used by contractor in determining the design;<br>(d) state particulars of—<br>(i) the depth of the lake or offshore area, the nature of the lake-bed or sea-bed and sub-soil at that location;<br>(ii) the maximum and minimum air and water temperatures likely to occur at that location during the period in which the fixed platform is expected to be in that location;<br>(iii) the characteristics of the waves taken into consideration in determining the design of the fixed platform;<br>(iv) the water current data taken into consideration in determining the design;<br>(v) the maximum wind speed and the direction of winds;<br>(vi) details of estimated marine growth on the fixed platform taken into account in determining the design;<br>(vii) particulars of the plan for transportation of materials and personnel, including safety consideration; and<br>(viii) the safety equipment provided including lifesaving, firefighting, radio or radio-telephone equipment. |

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| | (e) for a mobile platform, documents confirming platform certification by an independent competent body in accordance with Kenya standards and best petroleum industry practices;<br>(f) evidence of payment of prescribed fees under Schedule IX; and<br>(g) include any other information as the Authority may require.<br>(2) The Authority shall process an application under sub- regulation (1) within sixty (60) days from the date of application.<br>(4) The Authority shall not grant consent under sub-regulation (1) unless it is satisfied that the mobile platform is in accordance with safety requirements as to load line, construction or otherwise and that the safety equipment including lifesaving, firefighting, radio or radio-telephone equipment is adequate.<br>(5) Where a contractor requires to move a mobile platform an application to the Authority for consent to move a mobile platform shall be made in writing at least seven (7) days before the proposed moving and shall include-<br>(a) particulars of the proposed moving and the times at which the operation is proposed to be carried out at the locations concerned; and<br>(b) particulars of any buoy or under water obstructions proposed to be left at a location from which the mobile platform is to be moved.<br>(6) The construction or installation of a fixed platform and placement of mobile platforms shall be done in accordance with the terms and conditions of the permit issued by the Authority, Kenyan Laws, standards and best petroleum industry practices approved by the Authority.<br>(7) Notwithstanding the provisions of these Regulations, in the case of an emergency situation, a contractor shall take immediate action as is necessary to protect life, the environment and equipment and shall notify the Authority giving details of the causes of the incident, the action taken and preventive measures being undertaken to ensure the incident does not reoccur. |
| **Fixed platforms** | **67.** (1) A fixed platform shall not be constructed or installed in a contract area, unless -<br>(a) at least ninety (90) days before the construction or installation is commenced, notice of intention to commence construction or installation of that platform has been given to the relevant authorities in compliance with Kenyan Laws; and<br>(b) required approvals and permit was obtained in accordance with these Regulations.<br>(2) The Authority may inspect prefabricated parts or sections prior to installation in a manner determined by the Authority and in accordance with best petroleum industry practices as approved by the Authority.<br>(3) The construction, installation and maintenance of a fixed platform shall be done in accordance with the terms and conditions of the approval |

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| | issued by the Authority, Kenyan laws, and in accordance with Kenyan standards and best petroleum industry practices approved by the Authority.<br><br>(4) The Authority may examine the fixed platform at any time during the construction or installation by providing due notification to a contractor. |
| **Mobile platforms** | **68.** (1) A contractor or its subcontractors shall not, in any part of the contract area, use a mobile platform for or in connection with offshore petroleum operations unless—<br><br>(a) it is used and maintained in accordance with these Regulations, Kenya standards and best petroleum industry practices approved by the Authority; and<br><br>(b) required approvals and permits of the Authority was obtained in accordance with these Regulations.<br><br>(2) A contractor when so requested by the Authority, shall produce for inspection any documents issued by an independent competent body relating to the use and maintenance of the mobile platform. |
| | ***DIVISION 3 - PETROLEUM PRODUCTION*** |
| **Test production** | **69.** (1), A contractor shall obtain approval from the Authority prior to commencing test production.<br><br>(2) A contractor shall not later than one (1) month prior to the planned commencement of petroleum production, submit to the Authority a written application for approval of the test production that shall include:<br><br>(a) the objectives of the test production;<br><br>(b) a plan and programme for the test;<br><br>(c) description of geological and reservoir engineering objectives;<br><br>(d) a specification of the facilities and parameters that will be used;<br><br>(e) a description of systems and equipment for measuring produced petroleum;<br><br>(f) a detailed and itemised budget;<br><br>(g) a description of safety and environmental protection systems planned or implemented;<br><br>(h) a summary of the environmental and social impact assessment, unless not required due to existing studies or for other special reasons as approved;<br><br>(i) evidence of payment of prescribed fees under Schedule IX; and<br><br>(j) Any other information that the Authority may require.<br><br>(3) A contractor shall treat petroleum produced during test production as petroleum produced during commercial operation, unless otherwise specified in the approval of test production. Further, the Contractor shall store such produced petroleum for subsequent utilization or sale. |

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| | (4) The written approval by the Authority of the test production shall stipulate conditions to be complied with by a contractor on-<br>(5) the duration of such test production;<br>(6) the method of test production;<br>(7) the volumes of petroleum to be produced;<br>(8) facilities to be utilized;<br>(9) sale of petroleum;<br>(10) particular measures related to health, safety, and environment and , occupational safety and health, including mitigating or remedial measures to be taken; and<br>(11) any other relevant condition.<br>(12) A test production approval shall be for a period of not more than six (6) months, unless special circumstances justify a longer test production period. |
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| **Production permit** | **70.** (1) A contractor shall not produce petroleum without a production permit issued by the Authority.<br>(2) Prior to the commencement of production from any field the contractor and the Authority shall review the maximum efficient production rate for the field(s) specified in the field development plan, agree on its validity and establish dates on which such rate shall be re-examined and potentially revised.<br>(3) Sub-regulation (1) does not apply to a test production which shall be performed in compliance with Regulation 69. |
| **Application Process for Production Permit** | **71.** (1) Not later than two (2) months prior to the planned commencement of petroleum production a contractor shall, apply for an annual production permit.<br>(2) An application for a production permit shall include –<br>(a) a duly filled application form as provided in Schedule V;<br>(b) evidence of payment of applicable fees as prescribed in Schedule IX<br>(c) supporting documents defined in Section 32 of the Act.<br>(3) Additionally, a contractor shall submit the following documentation:<br>(d) the production plan and schedule for each reservoir unit;<br>(e) production forecast statement, broken down in calendar quarters, showing the total quantity of petroleum that a contractor estimates to produce, store, transport and sell during each calendar year consistent with the approved field development plan. The production forecast statement shall also include the following: |

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| | (i) proven reserves (developed and undeveloped);<br>(ii) probable reserves; (iii)possible reserves;<br>(iv) accumulated production (oil and gas);<br>(v) accumulated injection of natural gas;<br>(vi) stock of natural gas; and<br>(vii) volume withdrawn from the stock of natural gas.<br>(c) the monthly production reports for the last twelve (12) calendar months, if applicable for each reservoir unit;<br>(d) historical and updated reservoir monitoring data, analysis and other related data with comments on deviations from earlier forecasts;<br>(e) proposed production rates;<br>(f) the estimated monthly production volumes for each reservoir unit for the period applied for;<br>(g) the estimated total production volumes for each reservoir unit for the period applied for;<br>(h) the estimated total injection of gas, water, fluids into the reservoir for the purpose of pressure maintenance, secondary or tertiary (enhanced) recovery;<br>(i) the estimated volumes requested to be flared, vented or injected during the period applied for; and<br>(j) any other information the Authority may require<br>(4) The production permit may identify the quantity of petroleum which may be extracted, consumed, injected, flared or vented.<br>(5) An application for a renewal of production permit shall be made to the Authority by a contractor not later than two (2) months before the expiration of the existing permit and shall be in compliance with requirements stipulated under sub-regulations (2) and (2)(3) above. |
| **Processing of production permit application** | **72.** (1) The Authority shall -<br>(a) arrange for a public participation in compliance with sub-section 24 (9) of the Act and regulation 23; and<br>(b) inform a contractor in writing of the decision of the Authority within two (2) months after the receipt of the application and all required documents. |
| **Criteria for issuing a production permit** | **73.** (1) The Authority shall issue a production permit if satisfied that: -<br>(c) the information provided in the application is provided in accordance with Regulation 71 and Schedule IV;<br>(d) a contractor has all necessary processes and procedures in place to deliver safe construction and operations of facilities; |

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| | (e) an environmental and social impact assessment for the proposed facilities and operations have been approved in accordance with Kenya law; and<br>(f) any other matter it considers appropriate.<br>(2) The Authority in issuance of a production permit may consider the following:<br>(a) the size of the reservoir;<br>(b) the type of petroleum;<br>(c) the projected rate of production; and<br>(d) other factors of importance for the optimal depletion of petroleum from a field.<br>(e) (3) The Authority may consider any reasonable matter in deciding to approve or reject an application for a production permit and will provide a reasonable justification for its decision. |
| **Issuance of a production permit** | **74.** (1) The Authority may reject an application for a production permit on the basis of;<br>(a) public safety, or<br>(b) any other reasonable justification.<br>(2) A production permit issued by the Authority may be subject to conditions specified in such permit.<br>(3) A contractor shall conduct petroleum production operations in compliance with applicable Kenyan laws, standards and best petroleum industry practices approved by the Authority and the terms and conditions of the issued permit.<br>(4) A person shall not transfer a production permit except with the prior approval in writing of the Authority. |
| **Duration and renewal of a production permit** | **75.** (1) Production shall be for the period specified in the permit and such permit shall be renewed annually.<br>(2) An application for the renewal of a production permit shall be made not later than two (2) months before the expiration of the existing permit. |
| **Revision of a production permit** | **76.** (1) A production permit issued by the Authority under these Regulations shall not be changed or modified without the prior approval of the Authority.<br>(2) A contractor may apply to the Authority for the revision of a production permit and such application shall be accompanied by the documents required under regulation 71 explaining the reasons for changes or modifications. |
| **Production methods** | **77.** (1) A contractor shall use approved methods and practices acceptable to the Authority for the production of petroleum from a reservoir and shall in particular take all necessary steps to:<br>(a) obtain the initial physical characteristics of the reservoir fluids and reservoir parameters including<br>(i) temperature;<br>(ii) Pressure; |

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| | (iii) gas-oil ratio;<br>(iv) bubble point pressure;<br>(v) porosity;<br>(vi) viscosity; and<br>(vii) relative permeability in relation to fluid saturations and fluid gravities,<br>(viii) and submit to the Authority detailed data, results and analyses as soon as possible after the commencement of production from a reservoir;<br>(b) obtain periodic data required under these Regulations at intervals approved by the Authority; and<br>(c) ensure that each reservoir produces within the limits of the optimum potential rate of the reservoir.<br>(3) The Authority may give directions to a contractor to ensure the proper exploitation of petroleum. |
| **Production of petroleum and monitoring of reservoir during production process** | **78.** (1) A contractor shall produce and continually monitor the reservoir performance, including pressure and flow conditions, produced or injected volumes per well and composition of petroleum in accordance with a reservoir management plan submitted and approved as part of the field development plan.<br>(2) A contractor shall with the prior approval of the Authority, produce in each calendar year the quantity that has been approved by the Authority in the production permit and shall be required to comply with domestic supply obligation as provided for in the Petroleum Agreement.<br>(3) The total monthly production and injection volumes of the field shall be apportioned to each well on a monthly basis |
| **Pressure maintenance and enhanced recovery** | **79.** (1) A contractor shall with the approval of the Authority commence a study to determine the economic practicability of enhanced recovery and its recommended timing prior to or upon the attainment of a ten percent (10%) decline or any other level of decline as may be applicable per field for the initial pressure of a reservoir determined by the consideration of the average current reservoir pressure weighted as appropriate.<br>(2) A full report of the study undertaken under sub-regulation (1) shall be submitted to the Authority as soon as possible and in any case not later than six (6) months after the attainment of the pressure decline stipulated in sub-regulation (1).<br>(3) Where new methods for pressure maintenance, secondary or tertiary (enhanced) recovery are proposed and such methods are not specified in the approved field development plan, a contractor shall apply to the Authority for revision of the field development plan in compliance with these Regulations. |

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| | (4) When submitting the revised field development plan, a contractor shall additionally provide the following information:<br>(a) information on the number of wells to be used for injection of steam, liquids and gases and description of the injection systems such as details of pumps, compressors, treatment plants and their injection capacity;<br>(b) specification of flowlines to be used in the injection process; and<br>(c) details on the timeline for construction and installation of any equipment and plant necessary for pressure maintenance or secondary or tertiary (enhanced) recovery upon commencement of production.<br>(d) any other information the Authority may require.<br>(5) A contractor shall, in the annual development and production work programme and budget, provide information on the volumes of water and natural gas, steam and other liquids or chemicals to be injected. |
| **Disposal and injection well permit** | **80.** (1) A contractor shall not drill a disposal well or alter an existing well to be a disposal well without prior obtainment of a disposal well permit required under the Petroleum (Upstream and Midstream Environment, Safety and Health) Regulations, 2024.<br>(2) A contractor shall not drill an injection well or alter an existing well for the purpose of commercial injection, including for purposes of–<br>(a) pressure maintenance;<br>(b) enhanced recovery;<br>(c) gas storage; and<br>(d) other commercial purpose.<br>without prior obtainment of a drilling permit or approval of revision of a drilling permit and associated well plan, and approval of a field development plan or its modification as provided in these Regulations. |
| | ***DIVISION 4 OPERATION AND MAINTENANCE OF UPSTREAM PETROLEUM FACILITIES*** |
| **Operation of petroleum facilities** | **77.** (1) Every petroleum facility shall be operated in compliance with the Act, any other applicable Kenyan laws, standards and best petroleum industry practices approved by the Authority.<br>(2) Not later than ninety (90) days prior to commencement of petroleum operations a contractor shall submit to the Authority for approval a code of operations for the facility.<br>(3) Equipment and protective systems intended for use in potentially explosive atmospheres on installations, and devices for use outside the potentially explosive atmosphere, shall comply with the requirements contained in any other written law. |

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| | (4) Prior to commencement of petroleum operations, a contractor shall submit to the Authority for approval a code of operations for the facility. The code shall be reviewed by contractor in accordance with a schedule or triggers agreed with the Authority and substantial changes implemented or to be implemented into facility operation shall be approved by Authority. |
| **Disruption and suspension of continuous operation of facility** | **78.** (1) A contractor shall notify the Authority in writing not less than thirty (30) days before any planned shut-down of a facility.<br>(2) A contractor shall, immediately notify the Authority and Cabinet Secretary —<br>(a) on the occurrence of any operational incident resulting in the shut-down of the facility or any part of the facility or resulting in putting out of use of any plant, machinery or installation; or<br>(b) on the occurrence of any other emergency resulting in the shut-down.<br>(3) The notification under sub-regulation (2) shall state—<br>(a) the reasons for the shut-down or putting out of use of the facility, its estimated duration and its possible effect on the production commitment of the facility; and<br>(b) the steps, if any, taken or proposed to be taken to avoid a recurrence of the incidents or circumstances that led to the shut-down or putting out of use.<br>(4) Based on notification received from a contractor the Cabinet Secretary may, in accordance with section 71 of the Act order that the petroleum activities be suspended to the extent necessary or may impose particular conditions to allow continuation of the activities.<br>(5) Petroleum operations may be suspended by the Cabinet Secretary, where any of the following circumstances exist—<br>(a) extreme weather conditions including floods, wind or any other conditions that may affect the operation of the facility;<br>(b) political instability including war that may lead to disruption of petroleum activities;<br>(c) operations resulting into acute pollution to the environment; and<br>(d) any other condition likely to affect public or employee's health and safety or safety of property. |
| **Maintenance of structures, facilities and equipment** | **79.** Any person responsible for structures, facilities, equipment and any other property used for and in connection with petroleum operations shall maintain such in good condition and repair. |
| **Specific provisions on facility maintenance** | **80.** (1) Process and auxiliary facilities with equipment and components shall be subject to condition monitoring and maintenance in accordance with a maintenance schedule. |

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| | (2) Maintenance shall comprise of routine, preventative, scheduled, turn-around maintenance or any other type of maintenance as a contractor may deem necessary.<br><br>(3) Preventative maintenance schedules on critical equipment shall be prepared and submitted to the Authority annually at the beginning of each calendar year.<br><br>(4) Testing conditions for facilities, equipment and components shall be specified in the maintenance schedule.<br><br>(5) Registration of failures and replacements in order to ensure compliance with specified criteria shall be included in the maintenance schedule.<br><br>(6) The facilities shall be periodically examined for corrosion, and corrosion protection systems and any devices installed shall be checked regularly, in accordance with Kenya standards and best petroleum industry practices approved by the Authority, to ensure effective performance.<br><br>(7) Leak detection shall be carried out regularly. All scheduled turn-around maintenance shall be submitted to the Authority at least three (3) months prior to its commencement and a monthly progress report of the maintenance shall be submitted to the Authority until completion.<br><br>(8) As soon as practicable, but not later than forty-eight (48) hours, a contractor shall notify the Authority of unplanned maintenance works, causes for such maintenance and tentative schedule for completion of maintenance works. Upon completion of the unplanned maintenance works, a contractor shall furnish the Authority with a report within fourteen (14) days.<br><br>(9) Operational experience may be collected and treated systematically for use in regularity analyses and for improvements of equipment and operations of importance to safety.<br><br>(10) A contractor shall document condition monitoring and maintenance necessary for maintaining the specified safety level at the facility.<br><br>(11) A contractor shall define the responsibility for initiation, implementation and verification of condition monitoring and maintenance. |
| **Leak control** | **81.** (1) A contractor shall take measures to prevent the occurrence of leaks and promptly identify and stop any leaks from piping or other equipment within the facility.<br><br>(2) A contractor shall document any leaks identified under sub-regulation (1) and submit a report to the Authority within forty-eight (48) hours after detection of the leak, indicating measures taken to rectify the leak.<br><br>(3) Where a contractor detects a leak under sub-regulation (1), the contractor shall;<br><br>(a) repair the leak immediately and in any case not more than seven (7) days after the leak is detected; and |

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| | (b) undertake a component recheck after repair and if the leak is still present or a new leak is created by the repair, perform further maintenance until the leak is stopped. |
| **Leak monitoring and reporting requirements** | **82.** (1) A contractor shall conduct monitoring of petroleum facilities and associated equipment in accordance with the manufacturer's manual, Kenya standards and best petroleum industry practices approved by the Authority and submit records to the Authority.<br>(2) Pipeline valves and pressure relief valves shall be marked or noted so that their location is readily obvious to a contractor and any other person performing the monitoring.<br>(3) Where liquids are observed dripping from a pump seal, the seal shall be checked promptly with a portable detector to determine if a leak of volatile organic compound is present.<br>(4) Where a relief valve operates and venting to the atmosphere occurs, a contractor shall monitor the valve promptly.<br>(5) The pressure relief devices which are tied in, to either a flare header or vapour recovery device shall be exempted from the monitoring requirements.<br>(6) When a leak is located, a weatherproof and readily visible tag bearing an identification number and the date on which the leak was identified shall be affixed to the leaking component and the location, tag number, dates and stream composition of the leak shall be noted on a survey log.<br>(7) When the leak is repaired, the date of repair and instrument reading of component recheck after maintenance shall be entered in the survey log and the tag discarded.<br>(8) A contractor shall retain the survey log for at least two (2) years after the inspection is completed or any other period requested by the Authority.<br>(9) Where the Authority requests, a contractor shall demonstrate to the satisfaction of the Authority why the repairs could not be completed within the initial seven (7) day period in Sub-Regulation 81(3)(a). |
| **Modifications to leak monitoring schedule** | **83.** (1) A contractor may from time-to-time review leak monitoring requirements and shall request the Authority in writing for approval of the revised leak monitoring requirements.<br>(2) The request for approval under sub-regulation (1) shall include data developed to justify modifications in the monitoring schedule.<br>(3) Where the Authority finds an excessive number of leaks during an inspection, or where the person in charge of a facility finds and reports an excessive number of leaks in a given area during scheduled monitoring, the Authority may increase the required frequency of contractor's inspections for that part of the facility.<br>(4) Where the Authority is satisfied that the monitoring requirements referred to under sub-regulation (1) complies with the requirements of the Act |

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| | and these Regulations, the Authority shall approve the monitoring schedule within fourteen (14) days from the date of submission by a contractor. |
| **Test methods and procedures** | **84.** (1) A contractor shall use monitoring and testing methods that meet Kenyan standards and best petroleum industry practices approved by the Authority.<br>(2) A contractor may use alternative monitoring methods if it is demonstrated to the satisfaction of the Authority that the alternative methods shall achieve equivalent or higher control efficiency. |
| **Piping arrangements** | **85.** (1) The piping arrangement shall comply with applicable Kenya standards or best petroleum industry practices as approved by the Authority.<br>(2) In addition to loads prescribed in Kenya standards or best petroleum industry practices approved by the Authority, loads caused by abnormal conditions, such as fluids hammer, shall be taken into account in analysis of load effect.<br>(3) In analyses of load effect, a contractor shall –<br>(a) take into consideration the loads transferred to associated equipment; and<br>(b) in the case of piping arrangements on installations with large movements, give special consideration to deformations and movements of the installation under specified environmental conditions. |
| **Pipes and vessels handling high-pressure petroleum** | **86.** (1) A contractor shall ensure that rigid pipes smaller than three fourths (¾) inches are protected if exposed to the hazard of being broken by an externally applied force.<br>(2) A contractor shall ensure that vessels used for the storage of high-pressure petroleum have an allowance for thermal expansion in accordance with Kenya standards and best petroleum industry practices approved by the Authority. |
| **Loading and unloading facilities and operations** | **87.** (1) A contractor shall put in place measures and adopt standards for fluid loading and unloading facilities and operations. Such measures and standards shall be in compliance with Kenyan laws, standards and best petroleum industry practices approved by the Authority.<br>(2) The measures referred to under sub-regulation (1) shall provide mechanisms for preventing and minimizing pollution to the environment, accidents and the danger to the health and safety of the employees. |
| **Handling of samples, laboratories and pilot plants** | **88.** (1) A contractor shall ensure that fired experimental equipment, fired pilot plant units, and unfired equipment, which is a part of, and adjacent to the experimental or pilot plant units, are located in an open area or enclosure isolated from unrelated gas or light oil processing equipment.<br>(2) The requirement of sub-regulation (1) does not exclude the temporary use of operating equipment for experimental or pilot plant purposes when protection equivalent to isolation is provided. |

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| | (3) For purposes of these Regulations, "experimental equipment" does not include equipment used in routine testing or analysis.<br>(4) A contractor shall make provision for the handling of oil and samples with a minimum release of gases and vapours.<br>(5) A contractor shall ensure that safe access is provided to elevated parts of equipment where employees are required to perform work. |
| | ***Sub-division 3 - Measurement of petroleum*** |
| **Prohibition against bypassing a metering system.** | **89.** (1) A person shall not bypass a metering system.<br>(2) Contractors shall be responsible for ensuring that all metering equipment comply with these Regulations.<br>**(3)** A contractor shall implement redundancy or backup systems to ensure continuous metering accuracy and data integrity in the event of equipment failure. |
| **General requirements applicable to measurement of petroleum** | **90.** (1) A contractor shall for the purposes including but not limited to a custody transfer, fiscal metering, reservoir management measure or weigh all petroleum produced and saved from the contract area, by a method or methods approved by the Authority.<br>(2) When technology or methods not described in recognised standards are to be used, criteria for development, testing and operation are required to be submitted to the Authority.<br>(3) A contractor shall submit for approval to the Authority the system of measurement, proposed methods, equipment and procedures to be used to measure production and sales of petroleum.<br>(4) An application referred to in sub-regulation (2) shall be accompanied by at least the following information:<br>(a) full specification, with dimensioned drawings and relevant descriptive material;<br>(b) proposed operating procedures, including calibration and routine control;<br>(c) method for taking and keeping samples; and<br>(d) methods of laboratory analysis proposed for the determination of all physical and chemical parameters.<br>(5) The Authority shall be given unrestricted access to the metering stations, the control room, other equipment and systems used for measurement of petroleum.<br>(6) A contractor shall not make any alteration in the method or methods of measuring or weighing or any appliances used for that purpose without the written approval of the Authority.<br>(7) The frequency at which metering equipment or appliances are calibrated or tested shall be in accordance with the recommendation of the manufacturer and shall meet Kenya standards and best petroleum industry practices approved by Authority. |

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| | (8) The Authority shall at all times be present when an equipment or appliance for metering petroleum is being calibrated, re-calibrated, tested, verified, compared or measured to ensure that the equipment or appliance is in accordance with Kenya standards and best petroleum industry practices accepted methods and procedures agreed to by the Authority.<br><br>(9) The Authority shall have the right to test and establish the accuracy of fiscal metering appliances or equipment at any time without prior notice to a contractor.<br><br>(10) The measuring or weighing equipment shall not be repaired, altered or undergo maintenance without prior authorisation from the Authority. The Authority representative shall be present during repairs, maintenance or alterations of such equipment. |
| **Quality management and control system** | **91.** (1) A contractor, shall develop, implement and maintain a quality management system for petroleum measurement in accordance with these Regulations, Kenya standards and best petroleum industry practices approved by the Authority.<br><br>(2) A contractor shall prepare a quality assurance manual for the operation of the metering systems in accordance with best petroleum industry practices approved by the Authority.<br><br>(3) A contractor shall ensure that procedures relating to operation, maintenance, calibration, verification and control are followed.<br><br>(4) A contractor shall document the functional scope and areas of responsibility of the personnel who carry out tasks in connection with the metering system and shall describe the duties, responsibilities and authority of the personnel.<br><br>(5) A contractor shall nominate a person responsible for the metering system. The nominated person shall be responsible for ensuring that procedures relating to operation, maintenance, calibration, and control are followed.<br><br>(6) All personnel carrying out tasks related to the metering systems shall possess documented qualifications within the relevant technical field. |
| **Units of measurement and reference conditions** | **92.** (1) The readings of a metering system shall be in SI units, pressure may be in bar, and temperature may be in degree Celsius.<br><br>(2) The net volume of crude oil shall be determined in units of cubic metres at a temperature of 15ºC and pressure of 1 atmosphere (101325 Pa). The volume in barrels at 60ºF and 14.696 Psi shall also be reported.<br><br>(3) The volume of gas shall be determined in units of cubic metres at a temperature of 0ºC and a pressure of 1 atmosphere (101325Pa). The volume in cubic feet at 60ºF and 14.696 psi shall also be reported.<br><br>(4) The alternative readings in oil field units may be determined by the Authority. |

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| | (5) A contractor shall report petroleum measurements to the Authority in SI units; and convert and report to the Authority the net volume of oil in barrels. |
| **Determination of energy content** | **93.** (1) A contractor shall use gas composition from continuous flow proportional gas chromatography or from automatic flow proportional sampling for determining energy content.<br>(2) A contractor shall ensure that two independent systems are installed for sales gas metering stations.<br>(3) When oil or gas is analysed to determine physical and/or chemical properties and the analysis results are used for sale or allocation purposes, this shall be carried out by an accredited laboratory approved by the Authority.<br>(4) In determining barrels of oil equivalent for gas, a conversion factor of 5.8 million British Thermal Units (BTU) per barrel shall be used except as otherwise determined by the Authority. |
| **In-field metering of produced Petroleum** | **94.** (1) In-field metering of produced Petroleum for allocation to field(s) or Blocks shall adhere to measurement uncertainty thresholds not exceeding ±1% for liquid hydrocarbons and ±2% for natural gas.<br>(2) Any deviation from the specified measurement uncertainty thresholds or industry standards shall be reported within twenty-four (24) hours to the Authority.<br>(3) Reports submitted in accordance with sub-regulation ((2) shall include information regarding the nature of the deviation, its potential impact on measurement accuracy, and corrective actions taken to address the issue.<br>(4) In-field metering equipment shall undergo regular calibration at intervals specified by the manufacturer or as dictated by industry best practices, but not less than once per year.<br>(5) Detailed records of all metering data, calibration results, and maintenance activities shall be maintained and kept for a minimum of ten (10) years or as otherwise provided in these Regulations.<br>(6) Such information, kept as prescribed under sub-regulation ((5) above, shall be readily available to the Authority. |
| **Allowable measurement uncertainty** | **95.** (1) The metering system shall be designed so that metering errors are avoided or compensated for.<br>(2) The maximum allowable measurement uncertainty for flow meters shall not exceed:<br>(a) for crude oil meters used for fiscal and custody transfer- 0.3% of standard volume;<br>(b) for gas meters used for fiscal and custody transfer - 0.1 % of mass; |

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| | (c) for fuel gas meters – 1.5% of standard volume;<br>(d) for flare gas meters – 5.0% of standard volume;<br>(e) for liquified natural gas (LNG) used for sales measurement – 0.50 % of measured energy contents per ship load.<br>(3) A contractor shall document the total uncertainty of the metering system and prepare an uncertainty analysis for the metering that gives a confidence level of 95 % or higher.<br>(4) LNG shall be measured and analysed at the place of loading. A contractor shall be responsible for, and shall document, that the measurement system is in accordance with Kenya standards and best petroleum industry practices approved by the Authority.<br>(5) A contractor may determine liquefied natural gas volumes in connection with loading by use of traceable measured vessel tanks and calibrated level gauges or any other method approved by the Authority.<br>(6) The allowable uncertainty with respect to individual components of the metering system shall meet Kenya standards and best petroleum industry practices approved by the Authority.<br>(7) A contractor may use a linearity band as a test criterion when accepting meters.<br>(8) The repeatability requirement shall meet Kenya standards and best petroleum industry practices approved by the Authority. |
| **Placement of seals on critical valves** | **96.** The Authority shall place seals on all valves, downstream of a metering station, to prevent offloading of petroleum without authorization. |
| **Components of measuring system** | **97.** (1) The installations of a fiscal metering system for the custody transfer of liquids shall include the following key components compatible with the fluid being measured:<br>(a) main inlet pipe;<br>(b) main outlet pipe;<br>(c) with a flow metering device;<br>(d) a calibrated closed verification circuit (bidirectional tester), verification tank or connections to third party certification equipment, such as a transfer meter, a portable calibration verification closed circuit or other meter verification device;<br>(e) a sampling device actuated by the meter outlet flow;<br>(f) temperature and pressure measuring or compensating devices;<br>(g) computer system, prover and man-machine interface (MMI) system.<br>(h) any other component as the Authority may require. |

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| | (2) The installations of fiscal metering system for custody transfer of gas shall include the following key components and shall be compatible with the gas to be measured:<br>(a) an orifice plate meter or other equipped with a flow computer or similar device;<br>(b) a set of measuring tubes duly configured and with the necessary straight extensions both upstream and downstream;<br>(c) a sampling device actuated by the meter outlet flow;<br>(d) a temperature and pressure measuring or compensating device.<br>(e) any other component as the Authority may require. |
| **General requirements of the metering system** | **98.** (1) A contractor shall ensure that a metering system, including installation and equipment, comply with Kenya laws, Kenya standards and best petroleum industry practices approved by the Authority.<br>(2) A contractor shall ensure that<br>(a) the metering system is suitable for<br>(i) the relevant type of measuring,<br>(ii) the liquid or gas properties, and<br>(iii) the petroleum quantities to be measured.<br>(b) the metering system can measure the full range of planned petroleum flow without any component operating outside the specified working range;<br>(c) errors in measurement that may be caused by similar drifting in duplicated instruments due to process conditions are minimised;<br>(d) each part of the metering system is easily accessible for maintenance, inspection and calibration;<br>(e) external conditions do not affect the operation and maintenance of the metering system;<br>(f) it is possible to safely remove an individual element from a metering system for custody transfer measurements without a shut-down of the production system;<br>(g) the metering system shall, to the extent possible, be equipped with duplicated instrument functions for signals from primary meters and instrumentation for facilitating condition-based monitoring and reducing the need for preventive maintenance;<br>(h) signals from parallel metering runs shall be used in connection with condition monitoring.<br>(i) wireless communication between different parts of the fiscal metering system may be used ensuring that the metering system integrity is maintained. |

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| | (j) parameters related to the fiscal calculations are readily accessible in the computer part of the metering system or through a service computer; and<br>(k) provision is made for condition monitoring. |
| **Multiphase metering** | **99.** (1) Multiphase meters shall not be used for fiscal metering.<br>(2) Notwithstanding sub-regulation (1), the Authority may, in circumstances where single-phase metering of petroleum is not possible, approve the use of multiphase meters for fiscal metering.<br>(3) A contractor shall present a concept with an estimate of the expected measurement uncertainty to the Authority before submitting a field development plan.<br>(4) A contractor shall document to the satisfaction of an Authority the following elements of multiphase meters to allow its use -<br>(a) the description of the main principles of the operations and maintenance philosophy;<br>(b) the possibility to calibrate meters against test separator or other reference;<br>(c) redundancy in sensors and robustness in the design of the metering concept;<br>(d) relevant pressure, volume and temperature model and representative sampling opportunity to be able to perform a sound pressure, volume and temperature model (PVT) calculation;<br>(e) design of inlet pipes to ensure similar conditions if multiple meters are used in parallel;<br>(f) flexibility in the system for handling varying gas volume fraction (GVF);<br>(g) a description of the planned method for condition monitoring and planned calibration interval;<br>(h) a description of the planned method and interval for sampling and updating PVT data; and<br>(i) any other information that the Authority may require.<br>(5) Where multiphase meters are part of the fiscal metering system, they shall be treated as other fiscal metering equipment and shall be in accordance with these Regulations, Kenya standards and best petroleum industry practices approved by Authority. |
| **Mechanical part of metering system** | **100.** (1) A contractor shall ensure that—<br>(a) the mechanical part of the metering system is designed to meet Kenya standards and best petroleum industry practices approved by the Authority; |

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| | (b) during design, provision is made for necessary redundancy and the possibility of verification of the gas and liquid metering devices;<br>(c) when turbine meters are used for liquid metering, a permanent prover is available for calibration of the metering devices and it is possible to calibrate the prover at the place of operation; and<br>(d) where other types of flow meters are used for liquid metering, permanent equipment for calibration of the metering device is available.<br>(2) A contractor shall ensure that surrounding equipment do not affect the measured signals. |
| **Instrument part of a metering system** | **101.** A contractor shall ensure that the metering system instrumentation is able to measure pressure, temperature, density and composition of petroleum to ensure representative input signals for the fiscal calculations. |
| **Computer part of metering system** | **102.** (1) A contractor shall ensure that the computer part of the metering system shall be designed to ensure that fiscal calculations can be carried out within the stipulated maximum allowable measurement uncertainty;<br>(2) The computer part of the metering system shall be equipped with various security functions to ensure that the fiscal values cannot be changed as a result of incidents of a technical nature or as a result of a manual fault.<br>(3) The computer part shall have uninterruptible power supply. A power failure shall not be able to cause measured fiscal data to be lost from the storing unit of the computer.<br>(4) The computer part shall be capable of detecting any faults and documenting the various fiscal parameters, and the fiscal volumes calculated.<br>(5) Any fault detection shall trigger an alarm and activate an automatic back-up of the system. |
| **Requirements relating to sampling** | **103.** (1) A contractor shall carry out sampling in a manner that will ensure that representative samples are collected.<br>(2) Sampling shall be automatic and flow proportional with additional functionality for sampling to be carried out manually.<br>(3) A contractor shall ensure that for oil and condensate the necessary mixing equipment is installed upstream of the sampling probe.<br>(4) The Authority shall prescribe the frequency and manner in which sampling in done. |
| **Calibration and verification of metering system prior to start up** | **104.** (1) A contractor shall ensure calibration and verification of a metering system is undertaken at the place of operation prior to start-up.<br>(2) The Authority shall be present when calibrations and verifications are carried out.<br>(3) When calibration of a mechanical part of a metering system is taking place a contractor shall ensure –<br>(a) the prover volume shall be calibrated: |

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| | (i) before the metering system is delivered from the place of manufacture;<br>(ii) prior to start-up at the place of operation.<br>(b) the mechanical parts that are critical to measurement uncertainty shall be measured or subjected to flow calibration in order to document calibration curve.<br>(c) the fully assembled fluid metering system shall be flow tested at the place of manufacture and a functional test shall be performed upon installation and prior to start-up at the place of operation.<br>(4) When calibration of the instrument part of the metering system is taking place a contractor shall ensure –<br>(a) the instrument loops are calibrated and the calibration results are accessible;<br>(b) the instrument loops are calibrated at a number of values necessary to detect any non-linearity errors within its working range.<br>(c) calibration of the instrument loops shall be carried out using the display reading of the visual signal from the computer part.<br>(5) When verification of computer part of the metering system is taking place a contractor shall ensure –<br>(a) verification is carried out for each metering tube to confirm that all functions are operational.<br>(b) each independent program routine is verified to show that calculations are carried out with accuracy requirements equal to or better than those in Regulation 95.<br>(c) integration shall be verified with at least three values in the flow range.<br>(d) calculations for calibrations provided in paragraph 3 of these sub-regulation shall be verified. This includes K-factor in respect of the individual calibration and the average value within the predetermined range of variation.<br>(6) The Authority may develop guidelines for any aspect of metering not covered under these Regulations. |
| **Operation and maintenance of metering systems and its parts** | **105.** (1) A contractor shall ensure that the metering system is maintained to the standard according to which it is designed.<br>(2) A contractor shall ensure that the equipment which is an integral part of the metering system, and which is of significant importance to the measuring uncertainty, shall be calibrated using traceable equipment before start of operation, and subsequently be maintained to that standard.<br>(3) A contractor shall ensure that a meter prover volume is calibrated annually. Calibration shall also be carried out if the volume may have changed as a result of equipment failure.<br>(4) For operation of the flow meters a contractor shall ensure that—<br>(a) where turbine meters are used for metering of petroleum, they are calibrated against the permanent meter prover with a repeatability |

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| | that conforms with the manufacturer's recommendation; Kenya standards and best petroleum industry practices approved by the Authority;<br>(b) the calibration factor for the flow meters is within the control limits according to the recommendation of the manufacturer standards, Kenya standards and best petroleum industry practices approved by the Authority;<br>(c) flow meters installed after a work-over, modification or replacement are immediately calibrated to verify that they meet the requirements for linearity and repeatability.<br>(5) For operation of the instrument part a contractor shall ensure that—<br>(a) sensors are monitored continually and regularly calibrated in accordance with these Regulations, Kenya standards and best petroleum industry practices approved by the Authority;<br>(b) calibration comprises of several values in the sensor's operating range;<br>(c) where the outlet signals from the sensors deviate from the pre-set limits, necessary maintenance and subsequent new calibration is undertaken;<br>(d) calibration methods used ensure that systematic metering errors are avoided or compensated for;<br>(e) gas densitometers are verified against calculated density or other relevant methods;<br>(f) online gas chromatographs are validated against a traceable reference gas with a stipulated frequency;<br>(g) pursuant to the uncertainty statement referred to in Regulation 95, validation criteria are stipulated and if a gas chromatograph is outside the stated criteria during validation, calibration is performed and new factors are established;<br>(h) new validation is performed following a correction to confirm that the gas chromatograph is within the given test criteria; and<br>(i) variations in gas composition are monitored and, where variations exceed ± 5%, a reference gas with a different calorific value and a new linearity test is considered.<br>(6) For operation of the computer part a contractor shall ensure that-<br>(a) all data is filed regularly.<br>(b) procedures are in place for handling of fault messages from the computer part or faults otherwise discovered.<br>(c) where software changes and replacement of computer parts are done, an independent verification is carried out for the calculation requirements of the computer part. |

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| **Inspection of metering system** | **106.** (1) The Authority shall have an unrestricted access to petroleum installations for inspection of metering systems, verification of the operations and measurement reports.<br>(2) The inspections shall include:<br>(a) verification of the metering systems installed according to these Regulations, Best Petroleum Industry Practices approved by the Authority and in accordance with the manufacturers' recommendations;<br>(b) inspection of the state of the metering systems and instruments;<br>(c) verification of seals and respective control sheets;<br>(d) monitoring of inspections of tanks and metering systems;<br>(e) monitoring of calibration of the systems and instruments;<br>(f) monitoring of the measuring operations;<br>(g) verification of calculations of the volumes;<br>(h) verifications of computer systems;<br>(i) monitoring of the sampling and laboratory analysis operations;<br>(j) verification of the measurement, testing and calibration reports; and<br>(k) Any other matter the Authority may deem necessary to inspect.<br>(3) The contractor shall provide all the information, instruments and equipment necessary for the inspections and should fully cooperate with the Authority. |
| **Operational procedures in the event of a fault** | **107.**<br>(2) when a fault is detected in a meter, such meter shall be removed from operation for its adjustment or calibration and replaced by another calibrated meter approved by the Authority.<br>(3) when the fault is detected the production affected will be considered to be production from the preceding calibration or during the twenty-one (21) days immediately prior to calibration; and<br>(4) A contractor shall notify the Authority in writing within twenty-four (24) hours of the occurrence of a fault in the production measuring system, and of any other operational incidents that may cause an error in measurement or when there is total or partial interruption of measurement. A notification shall include an estimate of the volumes affected. |
| **Security of measurement** | **108.** (1) The measuring points of petroleum shall be operated and maintained in such a way as to prevent any loss or theft of production and guarantee precise and adequate measurement. |

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| | (2) The components of the measuring devices for sales (measuring units and tanks) shall be sealed in order to prevent any falsification.<br>(3) Any tamper proof seals shall be approved by the Authority, numbered and recorded.<br>(4) A list of the numbers on the seals and the location of the measuring installations shall be kept at the field installations and be available for inspection by the Authority.<br>(5) The computer part of the metering system shall include sufficient security functions to ensure that the fiscal values cannot be changed as a result of incidents of a technical nature or as a result of a manual fault. |
| | ***Sub-division 4 – Viable use and sustainable markets for associated and/or non-associated natural gas*** |
| **Use of natural gas** | **109.** (1) The terms and conditions related to development and production of natural gas shall be specified in the relevant petroleum agreements;<br>(2) A contractor may use natural gas in operations as a fuel and for re-injection, provided that the use is made in reasonable quantities and the re-injection is carried out in a manner compatible with the best petroleum industry practices and is subject to approval of the field development plan and the requirements set out in Regulation 38(2).<br>(3) Where any excess natural gas may require flaring, a contractor shall submit the request for consideration of approval by the Authority in accordance with the Act and any other written laws. |
| **Market evaluation report** | **110.** (1) Where a contractor makes a natural gas discovery under the terms of a petroleum agreement, within a period specified in such agreement, a contractor shall prepare and submit to Cabinet Secretary and the Authority a report that shall include, among others:<br>(a) potential market for natural gas,<br>(b) expected volumes for such market,<br>(c) infrastructure potentially required to access such market,<br>(d) expectations of price for the natural gas supplied to such market, and<br>(e) identify options including time frames for marketing the natural gas within three (3) years after the discovery evaluation is completed.<br>(2) A contractor shall be responsible for investigating market opportunities and seek to develop a market for natural gas produced from the relevant development area and may sell such natural gas in accordance with the petroleum agreement and any other written law.<br>(3) The Cabinet Secretary shall review and approve all natural gas contracts prior to execution. |
| | ***DIVISION 4 – DECOMMISSIONING AND ABANDONMENT OPERATIONS*** |

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| | ***Sub- division 1 - Plugging and abandonment of wells*** |
| **Plugging and abandonment permit** | **111.** (1) A contractor shall not plug and abandon a well without a plugging and abandonment permit for the well.<br>(2) Notwithstanding of the sub-regulation (1), a contractor may suspend a well upon approval of the Authority for the purpose of conversion to production wells, injection wells, mitigating an emergency or for any other reason. |
| **Application for well plugging and abandonment permit** | **112.** (1) A contractor shall apply for a well plugging and abandonment permit to the Authority in writing at least two (2) months before the commencement of plugging and abandonment operations and shall be accompanied by an abandonment plan.<br>(2) An application for well plugging and abandonment permit shall include:<br>(a) a duly filled application form as provided in Schedule VI;<br>(b) evidence of payment of applicable fees as prescribed in Schedule IX;<br>(c) the global positioning system (GPS) location of each well;<br>(d) a well plugging and abandonment plan as provided in Schedule VI;<br>(e) a list of relevant stakeholders and the local community likely to be affected by the operations and their respective contact details, and<br>(f) any other relevant information required by the Authority.<br>(3) Where it is determined based on best petroleum industry practices that a well requires to be immediately plugged and abandoned, the contractor shall apply to the Authority for approval before commencement of such plugging and abandonment operations. The application shall contain all available information under sub-regulation (2).<br>(4) The Authority shall within seven (7) days upon receipt of an application under sub-regulation (3), approve or reject the application. Regulations 113, 114, 115, 116, 117, and 118 shall apply as far as practicable based on the available information and prevailing circumstances. |
| **Processing a well plugging and abandonment permit application** | **113.** The Authority shall<br>(a) submit a copy of the well plugging and abandonment plan to the Government agency responsible for environmental management in accordance with Section 24(5)(e) of the Act for review and approval;<br>(b) arrange for a public participation in compliance with subsection 24(9) of the Act and Regulation 23.<br>(c) inform a contractor in writing of the decision of the Authority within two (2) months upon submission of an application. |
| **Criteria for issuing well plugging and** | **114.** (1) The Authority shall issue a plugging and abandonment permit if the Authority is satisfied that - |

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| **abandonment permit** | (a) the information and the well plugging and abandonment plan include the information specified in Schedule VI;<br>(b) the well plugging and abandonment plan is appropriate for the nature and scale of plugging and abandonment operation; and<br>(c) the Health, Safety and Environment components of the well plugging and abandonment plan is approved by the Government agency responsible for environmental management.<br>(2) The Authority shall not approve a well plugging and abandonment permit if it is not satisfied that it meets the requirements of sub-regulation (1).<br>(3) The Authority may consider any reasonable matter in deciding to approve or reject an application for a well plugging and abandonment permit and will provide a reasonable justification for its decision. |
| **Issuance of well plugging and abandonment permit** | **115.** (1) The Authority may reject a well plugging and abandonment permit for the following reasons:<br>(a) public safety or<br>(b) other reasonable justification.<br>(2) A well plugging and abandonment permit issued by the Authority is subject to conditions specified in such well plugging and abandonment permit.<br>(3) A well plugging and abandonment permit shall be for the period required to complete all required well plugging, abandonment, reclamation and restoration operations.<br>(4) A contractor is required to conduct well plugging, abandonment and restoration operations in compliance with applicable laws, standards, terms and conditions of the issued permit.<br>(5) A person shall not transfer a well plugging and abandonment permit except with the prior approval in writing by the Authority. |
| **Revision of well plugging and abandonment permit** | **116.** (1) A well plugging and abandonment permit issued by the Authority under these Regulations shall not be changed or modified without the prior approval of the Authority.<br>(2) A contractor may apply to the Authority for the revision of well plugging and abandonment permit accompanied by the documents required under sub-Regulation 112(2) explaining the reasons for changes or modifications. |
| **Well plugging and abandonment** | **117.** (1) Where a well is to be plugged and abandoned, the plugging and abandonment shall be done in a safe and efficient manner and shall be in accordance with the well plugging and abandonment plan approved by the Authority.<br>(2) The abandonment of a well must guarantee the isolation of geological formations by means of cement plugs or appropriate alternatives, to prevent the leakage and migration of fluids.<br>(3) The removal of equipment from wells must be preceded by diagnoses to assess the technical conditions. |

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| | (4) Well abandonment must be differentiated according to the architecture and path of the well and the characteristics of the reservoirs.<br>(5) A risk assessment shall be carried out in relation to all wells which must be permanently abandoned as a consequence of radioactive sources which may have been left in the well.<br>(6) Well plugging and abandonment shall be undertaken in accordance with applicable Kenyan laws, standards, and Best Petroleum Industry Practices approved by the Authority.<br>(7) The location of an abandoned well shall be restored immediately after the abandonment, unless otherwise authorized by the Authority, to near the original site condition to the extent possible.<br>(8) Onshore wells shall be marked with the well name and number in a manner approved by the Authority.<br>(9) A contractor shall obtain an independent verification from an independent and competent entity approved by the Authority that well plugging and abandonment have been completed in accordance with the approved well plugging and abandonment plan. |
| **Inspection of plugged and abandoned well** | **118.** (1) An inspection shall be carried out by the Authority after the well has been plugged and abandoned.<br>(2) The scope and frequency of post-abandonment inspections shall be determined by a contractor but, as a minimum, twice within fifteen (15) months from the completion of the abandonment.<br>(3) Any requirement for an additional inspection shall be based on the stability, degradation and environmental impact. |
| | ***Sub- division 2 – Decommissioning and abandonment of petroleum facilities*** |
| **General decommissioning and abandonment requirements** | **119.** A contractor or permit holder shall comply with the following requirements in execution of decommissioning and abandonment operations of petroleum facilities:<br>(a) decommissioning operations shall be conducted in accordance with applicable Kenya laws, standards, or best petroleum industry practices approved by Authority and provisions of petroleum agreements to guarantee integrity of the abandoned wells and decommissioned facilities;<br>(b) ensure, to the satisfaction of the Authority, safety of local communities in the areas previously subjected to the petroleum operations;<br>(c) ensure, to the satisfaction of the Authority, funding of the amount necessary for the decommissioning operations in compliance with Kenya law and terms of a petroleum agreement;<br>(d) ensure, to the satisfaction of the Authority, the adequate removal, reuse, recycling and disposal of materials and equipment resulting from the dismantling of the installations;<br>(e) ensure, to the satisfaction of the Authority, correct handling, treatment, transport and final disposal of all the waste produced, |

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| | including naturally occurring radioactive material and drill cuttings in compliance with applicable law.2024<br>(f) any other requirement the Authority may prescribe. |
| **Preliminary decommissioning plan, field decommissioning plan and its revisions** | **120.** (1) A contractor shall prepare and submit a field decommissioning plan to the Authority as part of the field development plan, which shall be the preliminary field decommissioning plan.<br>(2) A contractor shall update the preliminary field decommissioning plan and shall submit it to the Authority as part of the application for a production permit in accordance with Section 32 of the Act and these Regulations.<br>(3) The field decommissioning plan shall include the forecast of the funds necessary for its implementation, including a breakdown of the calculation of the cost of abandonment of the wells and dismantling of facilities, which forms an integral part thereof.<br>(4) Upon commencement of production, a contractor shall review and update field decommissioning plan and submit it to the Authority 90 (ninety) days prior to the beginning of each subsequent calendar year. If the Authority recommends an amendment to the updated field decommissioning plan, a contractor shall submit the amended plan for approval.<br>(5) The Authority shall review the updated field decommissioning plan or an amendment within 60 (sixty) days from the date of submission of the plan or amendment.<br>(6) The Authority shall upon the review under Sub-regulations (2) or (5) issue its decision in writing. In the case of a rejection, the reasons shall be provided to by the contractor and the contractor shall within thirty (30) days resubmit a revised plan to the Authority for review within sixty (60) days of such resubmission.<br>(7) Resubmission of the revised plan out of time or non-compliance with directions given by the Authority to the contractor amounts to an offence under Regulation 155. |
| **Permit to decommission or abandon an upstream petroleum facility** | **121.** A contractor shall not decommission or abandon an upstream petroleum facility without a permit. Such a permit shall also amount to an approval of the final decommissioning plan. |
| **Application process for permit to decommission or abandon an upstream petroleum facility** | **122.** (1) A contractor shall apply for a permit to decommission or abandon an upstream petroleum facility to the Authority in writing at least twelve (12) months before commencement of decommissioning or abandonment operations and the application shall be accompanied by a final decommissioning plan.<br>(2) An application for a permit a permit to decommission or abandon shall include:<br>(a) a duly filled application form as provided in Schedule VII;<br>(b) evidence of payment of applicable fees as prescribed in Schedule IX;<br>(c) a final field decommissioning plan as provided in Schedule VII; |

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| | (d) an environmental and social impact licence;<br>(e) a list of relevant stakeholders and the local community likely to be affected by the operations and their respective contact details; and<br>(f) (f) any other relevant information required by the Authority. |
| **Processing of application for permit to decommission or abandon an upstream petroleum facility** | **123.** The Authority shall<br>(a) arrange for a public participation in compliance with sub-section 24 (9) of the Act and regulation 23; and<br>(b) inform a contractor in writing of the decision of the Authority within six (6) months upon submission of an application. |
| **Criteria for issuing permit to decommission or abandon an upstream petroleum facility** | **124.** (1) The Authority shall not grant a permit to decommission or abandon an upstream petroleum facility if it is not satisfied that it meets the requirements of sub-regulation 122(2).<br>(2) The Authority may reject an application for a permit to decommission or abandon an upstream petroleum facility for reasons of;<br>(a) public safety, or<br>(b) other reasonable justification.<br>(3) A permit to decommission or abandon an upstream petroleum facility issued by the Authority is subject to conditions specified in such permit.<br>(4) A permit to decommission or abandon an upstream petroleum facility shall be for the period required to complete all required decommissioning, abandonment and restoration operations.<br>(5) A contractor is required to conduct decommissioning or abandonment operations in compliance with applicable laws, standards and terms and conditions of the permit.<br>(6) A person shall not transfer a permit to decommission or abandon an upstream petroleum facility except with the prior approval in writing of the Authority. |
| **Issuing of permit to decommission or abandon an upstream petroleum facility** | **125.** The Authority shall approve an application by issuing a permit to decommission or abandon an upstream petroleum facility under Regulation 122 if the Authority is satisfied that<br>(a) the information and the final decommissioning plan include the information specified in Schedule VII;<br>(b) the final decommissioning plan is appropriate for the nature and scope of decommissioning and abandonment operation; and<br>(c) the environmental impact assessment is approved by the Government agency responsible for environmental management. |
| **Revision of permit to decommission or abandon an upstream petroleum facility** | **126.** (1) A permit to decommission or abandon an upstream petroleum facility issued by the Authority under these Regulations shall not be changed or modified without the prior approval of the Authority.<br>(2) A contractor may apply to the Authority for the revision of decommissioning and abandonment permit accompanied by the documents |

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| | required under sub-regulation 122(2) explaining the reasons for changes or modifications. |
| **Conduct of decommissioning, abandonment and restoration operations** | **127.** (1) A contractor is required to conduct decommissioning, abandonment and restoration operations of upstream petroleum facilities in compliance with applicable Kenya laws, standards, terms and conditions of the issued permit and best international practices approved by the Authority.<br>(2) On execution of a decommissioning plan a contractor shall ensure that all areas affected by the petroleum operations are restored to as near original state as possible, unless otherwise provided in the approved final decommissioning plan.<br>(3) Upon completion of decommissioning, abandonment and restoration operations of upstream petroleum facilities a contractor shall obtain an independent verification, from an independent and competent entity approved by the Authority, that the decommissioning has been completed in accordance with the approved final decommissioning plan. |
| **Dismantling of onshore and offshore petroleum facilities** | **128.** (1) The Authority may direct a contractor to dismantle petroleum facilities in total or partially in compliance with the framework provided in Schedule VII. Such dismantling options shall be approved by the Authority in the final decommissioning plan.<br>(2) In the process of decommissioning and dismantling onshore or offshore petroleum facilities a contractor shall comply with Kenyan laws, standards, and Best Petroleum Industry Practices approved by the Authority. |
| **Decommissioning fund** | **129.** (1) A decommissioning fund shall be established in compliance with the Act and requirements of the petroleum agreement.<br>(2) A contractor shall pay the funds in accordance with the requirements of the Act and respective petroleum agreement.<br>(3) Decommissioning funds shall be set aside in a separate US Dollar interest bearing escrow account in the joint names of the contractor and the Government, established at a mutually acceptable financial institution in Nairobi, Kenya to be used solely for paying the decommissioning costs.<br>(4) The escrow account shall be controlled by a committee comprised of one (1) representatives of the contractor, one (1) official of the Ministry, one (1) official of the Authority, and one (1) representative of the County Government within which a major portion of a field(s) is located.<br>(5) The committee members shall administer and account for the funds in the escrow account only for activities outlined in the final field decommissioning plan.<br>(6) An escrow agent shall comply, at all times, with the minimum credit rating requirements determined by the Central Bank of Kenya<br>(7) An escrow agreement shall complement the petroleum agreement and shall be implemented to meet the decommissioning and abandonment requirements. |

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| **Decommissioning report** | **130.** (1) A contractor shall submit the report on implementation of a decommissioning plan, not later than three (3) months after decommissioning has been completed.<br><br>(2) The report specified in sub-regulation (1) shall include:<br><br>(a) information on the decommissioning work carried out;<br><br>(b) how the plugging and abandonment of wells was executed;<br><br>(c) the description of final abandonment or dismantling of petroleum facilities covered by the decommissioning plan, where applicable;<br><br>(d) an overview of actual expenditures;<br><br>(e) monitoring activities;<br>(f) an independent verification report as required under sub-regulation 127(3); and<br><br>(g) any other information that may be required by the Authority.<br><br>(3) The Authority may, on receipt of a report under this regulation, request for additional information.<br><br>(4) Subject to sub-regulation 131(2), where the Authority is satisfied that all decommissioning work completed in compliance with approved field decommissioning plan and terms and conditions of the permit to decommission or abandon an upstream petroleum facility the Authority shall issue a completion certificate to a contractor.<br><br>(5) Where the Authority is not satisfied that all decommissioning operations were completed in compliance with the final field decommissioning plan or terms and conditions of the permit to decommission or abandon an upstream petroleum facility, it may require a contractor, in writing, to rectify deficiencies within the period specified in such requirement. |
| **Liability for damage** | **131.** (1) A contractor or permit holder shall be liable for damage or loss arising in connection with decommissioning of upstream petroleum facilities in compliance with Section 44 of the Act and any other applicable Kenyan law.<br><br>(2) Notwithstanding sub-regulation 130(4) , and subject to sub-regulation 127(3) a contractor or permit holder shall retain residual liability in perpetuity for abandoned facilities in compliance with Kenyan law.<br><br>(3) Where upstream petroleum facilities are transferred to the National Government their maintenance and liability is assumed by the National Government upon financial compensation by the contractor to the National Government for future decommissioning and abandonment. Such financial |

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| | compensation shall be determined by the Cabinet Secretary with the advisory of the Authority.<br><br>(4) Where upstream petroleum facilities are transferred to the National Government the decommissioning fund shall also be transferred and the slot of the contractor in the committee established under 129(4) shall be taken over by the National Government. |
| | **PART III - DATA MANAGEMENT AND REPORTING** |
| | ***Division 1 – General requirements applicable to data management and reporting*** |
| **Ownership of Data** | **132.** The ownership of all data shall be vested in the National Government. |
| **Licensing of data** | **133.** The Authority may license a person who wishes to obtain any proprietary data rights under such terms and conditions as may be prescribed in a licensing agreement. |
| **General requirements on record keeping** | **134.** (1) A contractor or a non-exclusive exploration permit holder shall -<br>(a) prepare, document and retain data, documents and information necessary to ensure that petroleum operations are planned and executed in a prudent manner as from time to time defined by the Cabinet Secretary or the Authority; and<br>(b) ensure that documents demonstrating compliance with requirements stipulated under these Regulations and any other applicable law can be provided.<br>(2) The documents and information specified in sub-regulation (1) shall be -<br>(a) available in Kenya; and<br>(b) provided to the Authority and an authorised person in compliance with Kenya laws.<br>(3) Unless otherwise provided, a contractor shall keep the documents and information for as long as the documents provide necessary information about the petroleum operations of that contractor, sub-contractor, or a non-exclusive exploration permit holder, but in any case, for a minimum period of not less than ten (10) years.<br>(4) Where a contractor wishes to destroy any data or documents or information relating to petroleum operations it shall submit to the Authority a list of the documents and information prior to the destruction of the documents or information.<br>(5) Upon the receipt of the list specified in sub-regulation (4), the Authority may within a reasonable time request a contractor to submit the documents or information specified in the list for safekeeping. |

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| | (6) A contractor or a non-exclusive exploration permit holder shall provide all data to the Authority upon surrender or termination of petroleum rights granting instruments.<br>(7) No person shall publish, distribute, share, sell, license or otherwise deal in data acquired in Kenya without prior written approval of the Cabinet Secretary. |
| **Reporting** | **135.** (1) A contractor or a non-exclusive exploration permit holder shall ensure that all reports and data submitted to the Authority or Cabinet Secretary is submitted in the manner specified by the Authority or Cabinet Secretary.<br>(2) Unless otherwise provided, all reports and data required to be submitted to the Cabinet Secretary or the Authority under the Act, these Regulations, petroleum agreements, shall be submitted in physical, hard, and electronic format where applicable.<br>(3) Subject to sub-regulation (1) the Cabinet Secretary or the Authority may require a contractor or non-exclusive exploration permit holder to submit data and information to an authorised person in a manner directed by the Authority.<br>(4) A contractor or a non-exclusive exploration permit holder shall keep the Cabinet Secretary, or the Authority regularly and fully informed about petroleum operations conducted under petroleum agreement or a permit.<br>(5) A contractor and where applicable a non-exclusive exploration permit holder shall provide the Authority with all information, data, samples, interpretations and reports, including, but not limited to -<br>(a) progress and completion reports;<br>(b) reports which deal with location surveys, seabed conditions and seafloor hazards and any other report which deals with the location of wells, platforms or pipelines;<br>(c) reservoir investigations and estimates regarding reserves, field limits and economic evaluations relating to future operations;<br>(d) daily, weekly, monthly, and other regular reports on petroleum operations;<br>(e) comprehensive final reports upon the completion of each specific project or operation; and<br>(f) contingency programmes and reports on safety and accidents;<br>(g) final well reports, |

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| | (h) PVT reports,<br>(i) measurement and calibration reports,<br>(j) report on natural gas market study,<br>(k) well tests reports,<br>(l) core analysis,<br>(m) well surveys,<br>(n) velocity surveys, and<br>(o) health safety and environment report.<br>(6) A contractor or a non-exclusive exploration permit holder shall submit to the Authority and may retain for itself copies of the following data during the petroleum agreement period: -<br>(a) data,<br>(b) well logs,<br>(c) maps,<br>(d) seismic tapes,<br>(e) other geological, geochemical and geophysical information,<br>(f) portions of core samples,<br>(g) cuttings and fluid samples and<br>(h) copies of reports, studies and analyses.<br>(7) A contractor shall, within ninety (90) days after the end of each calendar year, or other period which may be prescribed in petroleum agreement, submit to the Authority a report covering petroleum operations performed in the contract area during that calendar year.<br>(8) A report under sub-regulation (7) shall include<br>(a) a statement of<br>(i) the number of exploration wells, appraisal wells and development wells drilled,<br>(ii) the depth of each well specified in sub-paragraph (i), and<br>(iii) a map on which drilling locations are indicated;<br>(b) a statement of any<br>(i) petroleum encountered during petroleum activities, |

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| | (ii) fresh-water layers encountered, and<br>(iii) other minerals discovered;<br>(c) a statement of the quantity of petroleum produced and of all other minerals produced from the same reservoir or field;<br>(d) a statement of the quantity of petroleum flared and re-injected and on the quantity of produced water;<br>(e) a summary of the nature and extent of all exploration activities in the contract area; and<br>(f) a general summary of all petroleum activities in the contract area.<br>(g) Any other information as may be required by the Authority. |
| **Data reporting** | **136.** (1) A contractor or non-exclusive exploration permit holder shall submit to the Authority all raw data arising out of petroleum operations within the time frame and manner prescribed under these Regulations, petroleum agreement, permit or as may be specified by the Authority.<br>(2) Geological, geochemical, geophysical and engineering data to be submitted to the Authority shall include a set of the raw data and a set of processed data from all work carried out and all samples taken together with interpretive material whether resulting from the survey or from the integration of other regional geological, geochemical, geophysical and engineering surveys, data and interpretations, with that or other surveys or other work both within or outside of Kenya.<br>(3) A contractor shall submit to the Authority gravity and magnetic data respectively which shall include—<br>(a) the position, elevation and value of gravity relative to a recognized datum, stated for every observation point;<br>(b) where raw field gravity data has been recorded on magnetic tape or any other storage media, one copy of the media in standard industry format or as may be specified by the Authority;<br>(c) the position, elevation, and the value of the magnetic field intensity relative to a recognized datum, for every observation point; and<br>(d) where raw field magnetic data has been recorded on magnetic tape or any other storage media, one copy of the media in standard industry format or as may be specified by the Authority.<br>(e) Any other data as the Authority may require<br>(4) Seismic data submitted to the Authority shall include— |

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| | (a) copies of observer's daily reports;<br>(b) a navigation tape on format approved by the Authority;<br>(c) a copy of all record sections on the producible film which shall show all stacking velocities used, clearly displayed on the record section, together with the results of all weathered zone and velocity surveys acquired for whatever purpose;<br>(d) copies of all field tapes made before brute stack in formats prescribed by the Authority;<br>(e) final stack tape of all seismic lines in a readable format that shows all stacking velocities above the record section and processing parameters on the header;<br>(f) copies of shot point base maps on appropriate scales on reproducible film; and<br>(g) any other data as the Authority may require.<br>(5) A contractor or non-exclusive exploration permit holder shall submit to the Authority all data, whether processed, interpreted, reprocessed or re-interpreted, at no cost to the Authority. |
| **Reporting of non-exclusive exploration activity** | **137.** (1) A non-exclusive exploration permit holder shall submit in a form acceptable to the Authority<br>(a) a daily and quarterly activity reports in such detail as to allow an assessment of the progress of the work programme;<br>(b) within three (3) months from the cessation of the Permit all relevant data, reports and results of the activities carried out under the permit; and<br>(c) submit a copy of all data acquired during a non- exclusive exploration activity.<br>(d) Any other information as the Authority may require.<br>(2) Nothing in this section shall prevent the Authority from attaching additional reporting conditions to the permit and which relate to the management and reporting of data. |
| **Reporting during drilling and well activity** | **138.** A contractor shall submit in a form acceptable to the Authority -<br>(a) All daily reports, including drilling logs, from a drilling and well activity providing a summary of the day's operations specifying the present depth of any drilling operation, lithologies penetrated, mud gas shows, testing operations, drilling difficulties and |

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| | associated cost, and at least a twenty-four (24) hour forecast of the operations;<br>(b) a well completion report within ninety (90) days after the completion of any well;<br>(c) well repair, recompletion or modification reports detailing the operation and the results, in a form acceptable to the Authority, within forty-five (45) days after the completion of the operation; and<br>(d) an end of well test report after testing the well.<br>(e) directional survey, measurement while drilling, kick sheet;<br>(f) Any other information as the Authority may require. |
| **Reporting of well-log data** | **139.** (1) A contractor shall report all raw well-log data acquired from both open and cased-hole sections, whether acquired by electric wireline methods, associated surface systems or any other methods approved by the Authority.<br>(2) A contractor shall complete all appropriate well log data in accordance with applicable American Petroleum Institute (API) Header and support attribute information.<br>(3) A contractor shall submit raw data without additional editing, filtering, or making other corrections to the data set acquired from the well.<br>(4) A contractor shall report all field prints of the acquired logs at 1:200 and or 1:500 scale including hard copies and digital copies of the logs.<br>(5) A contractor shall create for each well a logging summary which shall contain information for all well-logging operations as prescribed in guidelines issued by the Authority.<br>(6) The logging summary file incorporating all logging activities shall be cumulatively generated and stored.<br>(7) In reporting the well log data contractor shall use the format and quality specified in guidelines issued by the Authority<br>(8) Contractor shall acquire caliper, bit size, neutron, density, acoustic, gamma ray, resistivity, Spontaneous Potential, and cement bond logs as a minimum in every well. |
| **Geophysical and geological reports** | **140.** (1) A contractor or where applicable a non-exclusive exploration permit holder shall submit to the Authority complete copies of all final reports prepared from the results of field investigations, specialised studies, or other activities relating to the contract or permit area within three (3) months after the completion of the activities or progress reports within |

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| | three (3) months after the completion of a twelve (12) month period of a continuing survey, whichever is sooner.<br><br>(2) Reports required under sub-regulation (1) shall contain, where applicable, the following information—<br><br>(a) the location of the survey, including the method of determining the positions of metering or observations with estimates of their accuracy, including, for marine or airborne surveys, the method of navigation used;<br><br>(b) the composition of the field party;<br><br>(c) the dates when the surveys were commenced and finished;<br><br>(d) the type of survey, and the methods and equipment used;<br><br>(e) the purpose of laboratory or desktop studies, its results and conclusions, together with all supporting geological and engineering data, whether raw,<br>corrective or interpretive that a contractor has used in carrying out the work both within or outside Kenya; and<br><br>(f) the records of data, including where applicable, the time and location of an observation or metering, together with observational data in their original form, and in their processed or corrected form, with a complete and adequate description of the method of processing or correction applied, and methods of analysis.<br><br>(3) Geological reports shall include—<br><br>(a) the interpretation of the stratigraphy, structure, tectonics and any other factors related to the petroleum potential of the area as well as correlation with other areas;<br><br>(b) the geological maps, sections, and columns prepared from the results of the surveys; and<br><br>(c) any other information pertinent to the survey or the report or as may be required by the Authority.<br><br>(4) Geophysical surveys shall, without limitation, include seismic surveys, ground magnetic surveys, ground gravity surveys, electrical surveys, aeromagnetic surveys, airborne gravity surveys and other air-borne surveys.<br><br>(5) The seismic survey reports shall without limitation, include—<br><br>(a) the type and characteristics of the explosives or other source of seismic energy and characteristics of the signal generated; |

(b) for offshore surveys, a map or maps showing the positions of shot points and the depths of operation of seismic energy source;

(c) copies of fathometer records;

(d) for onshore surveys, a map or maps showing the positions of shot points, the elevation of shot points with reference to mean sea level, and the depth below surface of the seismic energy source, together with the locations of all weathered zone surveys, up-hole surveys and velocity surveys;

(e) where a shot hole is used, the depth to ground water and a driller's lithological log;

(f) results of all interpretations made on seismic data, including velocity maps and seismic maps in time and depth; and

(g) sections, prospect montages, and interpretive integrations with all geological and engineering data used of whatever kind both within and outside Kenya.

(6) Gravity survey reports shall without limitation, include—

(a) a description of every gravity base station, including the position, elevation, and adopted gravity value;

(b) the value of any terrain or topographic correction which may have been evaluated including the method used to evaluate it;

(c) in the case of marine or airborne surveys, the course and speed of the vessel or aircraft, together with the depth of the water or height above terrain, as the case may be;

(d) the density determination on rocks, or derived values;

(e) the gravity-meter closure charts showing misclosures or adjustments; and

(f) all gravity anomaly maps and profiles prepared as part of the survey, all interpretive material, whether resulting from the survey or integration of other surveys or other work or data both within and outside Kenya.

(7) The magnetic survey reports shall without limitation, include—

(a) for marine surveys, the water depth and the position of the magnetometer sensor relative to the vessel;

(b) for magnetic vector metering, the values of observed components or directions;

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| | (c) a description of every magnetic base station, including the position, elevation and adopted magnetic values;<br>(d) the magnetic properties of all rock samples measured;<br>(e) the magnetometer drift curves, calibration details, and loop closure charts, showing misclosures and adjustments; and<br>(f) all magnetic anomaly maps and profiles prepared as part of the survey. |
| **Petroleum reserves and resources reporting** | **141.** (1) Notwithstanding any confidentiality requirements a contractor shall report to the Authority estimates of petroleum resources and reserves on an annual basis, irrespective if they have not changed from when they were last reported.<br>(2) The report referred to under sub-regulation (1) shall contain—<br>(a) a brief description of a contract area including a geological description, prospectively of the area, activities undertaken during the year and planned activities for the following year, which shall lead to a better understanding of the resource potential;<br>(b) petroleum initially-in-place;<br>(c) estimated ultimate recovery;<br>(d) remaining recoverable resources including—<br>(i) estimates of petroleum reserves;<br>(ii) contingent resources;<br>(iii)prospective resources;<br>(iv) unconventional resources; and<br>(v) whether and how each of the resource classes in the summation were adjusted for risk.<br>(3) The Authority may require a contractor to provide further information relating to petroleum resources and reserves.<br>(4) The reserves referred to under sub-regulation (1) shall be presented as proven, possible and probable in accordance with the Society of Petroleum Engineers Petroleum Resource Management System or any other system approved by the Authority.<br>(5) In presentation of reserves, a contractor shall provide a detailed description of the types of tests performed including—<br>(a) production and formation testing; |

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| | (b) well logs and core analysis that indicates that the zone is petroleum-bearing and other analyses undertaken to determine commercial producibility of the accumulation;<br>(c) analogues that have demonstrated commercial producibility by actual production and formation testing; and<br>(d) economic assumptions used to calculate the reserve estimates.<br>(e) any other information as the Authority may require.<br>(6) The annual petroleum reserve estimates shall include—<br>(a) a reconciliation of a contractor's reported petroleum reserve estimates for the current year against the corresponding petroleum reserve estimates for the previous year; and<br>(b) an explanation of any changes between the two.<br>(c) any other information as the Authority may require. |
| **Reporting during production** | **142.** (1) A contractor shall submit to the Authority, the following information on production parameters:<br>(a) gross or net production;<br>(b) individual well performance;<br>(c) wellhead pressures;<br>(d) bottom hole pressure/and water and gas injection volumes;<br>(e) oil production rate, injection rate, gas-oil ratio and water oil ratio, water produced,<br>(f) survey report of reservoir pressure,<br>(g) date and type of any well servicing,<br>(h) method used for quality control and treatment of the injected fluid,<br>(i) report on unusual performance problems and remedial measures taken or considered;<br>(j) history matching and production forecasts;<br>(k) production statement;<br>(l) annual petroleum production reports<br>(m) any other information as the Authority may require<br>(3) A production statement submitted to the Authority under Sub-Regulation 142(1)(k) shall be on a monthly basis showing the following |

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| | information separately for each producing field and in aggregate for the development area: -<br><br>(a) the quantity and quality of petroleum produced and saved;<br><br>(b) the quantities of Petroleum used for the purposes of carrying on drilling and production operations and pumping to field storage as well as quantities injected into the formation<br><br>(c) the quantities of petroleum lost due to spills, leakages, or any other unforeseeable circumstances<br><br>(d) the quantities of Natural Gas flared and/or vented<br><br>(e) the size of Petroleum stocks held at the beginning of the Month in question;<br><br>(f) the size of petroleum stocks held at the end of the Month in question;<br><br>(g) The quantities of natural gas re-injected<br>(h) The number of days in the Month during which Petroleum was produced from each Field.<br><br>(i) The Gas-Oil ratio for each Reservoir and Field for the relevant Month<br><br>(j) Water production, water injection and Reservoir pressure data for each Reservoir and Field<br><br>(k) The number of days in the Month during which Petroleum was produced from each Development Area within the Contract Area<br><br>(4) All quantities shown in the production statement shall be expressed in both volumetric terms (barrels of Oil and standard cubic metres of Gas) and in the case of Oil in weight (metric tonnes).<br><br>(5) Notwithstanding sub regulation (4) above, the contractor shall additionally report measured volumes, temperature, and pressure at the time of measurement (ambient conditions)<br><br>(6) At the end of each month aggregated statements in respect of the three Months comprising that Quarter shall be submitted for each of the items (a) to (k) in sub-regulation (3) above. Additionally, the average daily production rate for the Quarter shall be calculated.<br><br>(7) The Production Statement for each Month shall be submitted Authority not later than seven (7) days after the end of such Month<br><br>(8) The Operator shall use all reasonable effort to ensure that Daily, Weekly and Monthly production targets shall be met without detrimentally affecting the reservoir.<br><br>(9) Where a contractor does not meet monthly production threshold, justifications shall be provided to the Authority within seven (7) days with a plan outlining how the threshold for the quarter of occurrence shall be met. |

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| | (10) Where the reservoir has been detrimentally affected, the operator shall also outline remedial measures undertaken or under consideration in the justification for failing to meet the target production for consideration by the Authority. |
| **Daily and Weekly Production Reporting** | **143.** (1) Notwithstanding Regulation 142 above the contractor shall prepare a daily production statement which shall include:<br>(a) Petroleum volumes produced every day from different fields;<br>(b) Planned or unplanned Downtime;<br>(c) Causes of unplanned downtime; and<br>(d) Preventive and/or remedial measures for unplanned downtimes.<br>(e) Any other additional information<br>(2) The Contractor shall submit an aggregated weekly production statement clearly outlining petroleum volumes produced every day from each field for that week and any outstanding issues as identified in the daily production statement. |
| **Report on unusual performance** | **144.** (1) A Contractor shall evaluate and maintain well integrity where unusual well performance problems are identified for the safety of all personnel and equipment.<br>(2) The Operator shall notify the Authority within forty-eight (48) hours of identifying unusual well or reservoir performance behaviour duly reporting the following;<br>(a) any resulting Non-Productive Time<br>(b) corresponding increase or decrease in production.<br>(c) detailed description of remedial measures already undertaken or being considered for implementation<br>(3) Where the unusual performance potentially constitutes a departure from the parameters outlined in the Field Development Plan or dynamic model predictions for either the well or the reservoir performance the Authority may request for additional data necessary for the review of whether the unusual performance constitutes a material departure from predicted behavior. |
| **Data related to metering system, petroleum measurement, test and calibration reports** | **145.** (1) A contractor prior to start-up of the metering system shall poses, maintain and provide to the Authority documentation including -<br>(a) safety reports outlining emergency response plans, risk assessments, and safety equipment documentation<br>(b) engineering reports which shall include but not be limited to;<br>i. Design reports with layout, equipment specifications, piping and instrumentation diagrams (P&IDs), and other technical design details; |

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| | ii. Instrumentation and Control (I&C) report with sufficient detail on selection, installation, calibration, and integration of sensors, transmitters, controllers, and other I&C device<br>iii. Commissioning and Testing Plan outlining the procedures for commissioning, testing, and validating the performance of the metering station.<br>iv. Any other engineering report the Authority may request.<br>(c) operational plans detailing how the metering station will be operated, including procedures for routine maintenance, monitoring, and troubleshooting.<br>(d) documentation for all equipment installed at the metering station, including meters, valves, pumps, and control systems.<br>(e) progress plan for the project up to the time of application for consent to use;<br>(f) quality assurance reports demonstrating compliance with quality standards and protocols. these shall include regular audits and inspections to ensure that processes and equipment meet quality requirements.; and<br>(g) startup plan outlining the steps and procedures for bringing the metering station online safely and efficiently. This plan shall include testing procedures, commissioning activities, and contingency plans for addressing any issues that may arise during startup.<br><br>(2) A contractor shall establish and maintain an archive which shall contain documentation in respect of the metering system.<br><br>(3) A contractor shall notify the Authority of any changes to the metering system that affect the quality of fiscal metering or figures reported from the metering including the following—<br>(a) an annual plan for activities within the technical field in question;<br>(b) procedure for ownership allocation of petroleum between licensees in production licences;<br>(c) metering errors;<br>(d) fiscal metering data that have been corrected based on calculations;<br>(e) changes in calibration intervals;<br>(f) changes in calculation software; and<br>(g) changes in aspects that formed the basis of the consent for start-up<br><br>(4) A contractor shall provide to the Authority quarterly reports on its petroleum measurement. Such reports shall contain the following information as a minimum: |

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| | (a) all measurements, analyses and calculations made for the determination of production in a field;<br>(b) information relating to daily production and respective transportation or storage;<br>(c) when a measurement is carried out in a tank with a volume greater than daily production, the measurement shall be adjusted according to the production of each day;<br>(d) the measurement report forms shall be presented to the Authority for approval, and in the case of reports prepared using electronic means, they shall contain all the calculation formulas used;<br>(e) all the measurements, inspections, analyses and calculations made during the calibration of measurement instruments and systems shall be recorded in reports, which shall be drafted immediately following calibration and shall include information to enable the Authority to check traceability; and<br>(f) Any other information the Authority may require.<br>(5) Without limiting sub-regulation (4), the reports shall include in particular:<br>(a) a contractor's name;<br>(b) identification of the field or installation;<br>(c) date and time the report was produced;<br>(d) period of production or movement of fluid;<br>(e) identification of the measuring points;<br>(f) values recorded (totals, levels, temperatures, pressures);<br>(g) gross, corrected and net volumes of production or transfer;<br>(h) results of laboratory analyses;<br>(i) correction factors with the parameters and methods used for their determination;<br>(j) names, designations and signatures of all persons responsible for the report<br>(6) Measurement, test and calibration reports shall be filed and be available for examination by the Authority or an authorised person. |
| | ***Division 2- Samples*** |
| **Samples** | **146.** (1) A contractor shall correctly collect, label, preserve, retain in Kenya and submit to Authority the samples in the nature of:<br>(a) cuttings;<br>(b) conventional cores;<br>(c) sidewall cores; |

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| | (d) liquid and gas;<br>(e) logs; and<br>(f) test data.<br>(g) any other substance or data the Authority may require.<br>(2) A contractor may remove for examination and analysis samples and specimens of rock and petroleum found in the course of petroleum operations.<br>(3) A contractor shall correctly label and preserve for reference of r a period of at least two (2) years any samples of the strata or water encountered in any borehole or well taken by a contractor and samples of petroleum or other fluids in a contractor area.<br>(4) A contractor shall submit to the Authority a representative specimen of any sample obtained in conduct of petroleum operation as detailed in Schedule VIII, where the quantity of the core, cutting or sample is available to a contractor.<br>(5) The Authority shall have access to the samples taken under sub-regulation (1) at all times; and may require that representative specimens not exceeding one half of any sample be delivered to the Authority.<br>(6) The Authority upon a receipt of a written request may authorise a contractor to export a specimen or sample abroad for the purposes of analysis, subject to such conditions as the Authority may determine. A contractor shall provide the Authority a report about the progress of the analysis within twelve (12) months after the authorisation being given or such other period the Authority may determine.<br>(7) Upon a receipt of a written request the Authority may provide access to samples in its possession to prospective contractors, subject to receipt of justifications and payment of a fee stipulated in Schedule IX of these Regulations. |
| **Collection of drill cuttings** | **147.** (1) A contractor shall collect samples of drill cuttings from geological formations during the drilling operations for purposes of analysis.<br>(2) Sampling shall commence as soon as returns of the drilling fluid have been established.<br>(3) A contractor shall collect samples of drill cuttings from a development well from the reservoir section for purposes of analysis.<br>(4) The sampling interval shall not exceed five (5) metres for an exploration well.<br>(5) The sampling interval in the reservoir shall not exceed five<br>(5) metres for an appraisal and development well if a conventional core is not taken. |
| **Collection of cores** | **148.** (1) A contractor may collect a conventional core<br>(a) for purposes of determining the reservoir properties; and<br>(b) from the entire reservoir section from<br>(i) each of the selected appraisal wells, and |

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| | (ii) a selected development well after a discovery has been made.<br>(2) The contractor may take a sidewall core where necessary.<br>(3) The core samples shall be placed in core boxes or other boxes approved by the Authority, with accurate labels of—<br>(a) the well number;<br>(b) the number of the core box; and<br>(c) the interval of coring. |
| **Collection of fluids** | **149.** (1) A contractor shall sample all formation fluid recovered from formation or other nonroutine production tests.<br>(2) A contractor shall provide as soon as possible the Authority with a copy of the results of the analysis of any sample made under sub-regulation (1).<br>(3) A sample of all formation fluids recovered shall be submitted to the Authority, the quantity of which shall be determined by the quantity available and by mutual agreement between a contractor and the Authority.<br>(4) Samples shall be labelled with waterproof ink and packaged in sample bottles as agreed to by the Authority. |
| **Well logging and formation evaluation** | **150.** (1) A contractor shall carry out well logging in each well for analysis. As a minimum this shall comprise caliper, bit size, neutron, density, gamma ray, resistivity and spontaneous potential logs.<br>(2) A contractor shall carry out formation testing to establish-<br>(a) the pressure gradient and type of fluids in a formation; and<br>(b) the production capability of the well,<br>(c) the reservoir properties,<br>(d) any other information as may be required. |
| | **PART IV – INSPECTIONS OF UPSTREAM PETROLEUM OPERATIONS AND FACILITIES** |
| **Inspections** | **151.** The Cabinet Secretary, the Authority or a person authorized in writing by them, may inspect any upstream petroleum operations, facilities document and records and other related matters. |
| **Inspectors** | **152.** (1) In compliance with Regulation 151 the Cabinet Secretary or the Authority may appoint qualified representatives to act as inspectors and provide them an identification document stating–<br>(a) that a person is an inspector for the purposes of the Act and these Regulations;<br>(b) the term of inspector's appointment; and<br>(c) any other relevant information.<br>(2) A technical inspector may–<br>(a) enter any permit or contract area;<br>(b) inspect and test any upstream petroleum operations and facilities; |

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| | (c) take samples;<br>(d) require a contractor or a permit holder to produce books, records, documents, maps, or plans relating to any upstream petroleum operations and facilities;<br>(e) inspect, take extracts from, and make copies of any of books, records, documents, maps, or plans under paragraph (d); and<br>(f) conduct other activities to effect regulation 151. |
| **Power of inspector** | **153.** (1) The Cabinet Secretary, the Authority or an inspector may at any time and upon at least a twenty-four (24)-hours' notice to a contractor and permit holder to enter the contract area or its premises to —<br>(a) examine or check anything which a contractor or permit holder is authorised by the Act and these Regulations to perform, install, construct, abandon, decommission or take possession of;<br>(b) inspect and make abstracts or copies of any logs, records, maps, accounts or other documents which a contractor is required to make or keep in accordance with the Act and these Regulations; and<br>(c) carry out any other function under the Act and these Regulations.<br>(2) Notwithstanding sub-regulation (1) the Cabinet Secretary, the Authority or an inspector may at any time and without notice inspect upstream petroleum operations, facilities, and related matters for the purpose of ascertaining compliance with these Regulations or any other applicable law.<br>(3) An inspector shall identify himself or herself upon arrival at the contract area, a facility or any other location, premises, structure, or place where upstream petroleum operations and related matters are undertaken.<br>(4) An inspector shall not, in exercising his or her powers under these Regulations, unreasonably interfere with or delay the operations of a contractor or permit holder.<br>(5) An inspector may make any investigation necessary to determine compliance with these Regulations or any other applicable law.<br>(6) Where an inspector suspects or finds that any upstream petroleum operations or facilities are not compliant with these Regulations or any other applicable law, the inspector shall issue notice in writing to the person-in charge to remedy the non- compliance immediately. |
| **Access to samples, data, documents, reports and records by an inspector** | **154.** (1) A contractor or permit holder shall allow an inspector at any time, to have access to and to take notes from samples, documents, data, reports and records concerning upstream petroleum operations.<br>(2) Where information obtained under sub-regulation (1) is subject to applicable confidentiality requirements such information shall be treated as confidential and shall not be disclosed to any other party except where the information is required to be used or published in accordance with applicable laws, petroleum agreement or by a lawful order to disclose. |

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| | **PART V – OFFENCES AND PENALTIES** |
| **Offences** | **155.** (1) Subject to any other offence or penalty specifically prescribed under the Act or these Regulations, a person who—<br>(a) contravenes any provision of these Regulations for which no specific penalty is provided under relevant laws or the Act as may be relevant;<br>(b) fails to comply with any direction given under these Regulations;<br>(c) fails to allow any inspection authorised under these Regulations;<br>(d) fails to make an application, notification, report or other submission required by these Regulations; or<br>(e) unlawfully publishes, distributes, shares, sells, licences or otherwise deals in data acquired in Kenya,<br>commits an offence and shall on conviction be liable to the penalty prescribed in section 124 of the Act.<br>(2) Where a continuing offence is committed, a person shall on conviction be liable to a fine or imprisonment as determined by the Act or these Regulations, and in addition, a fine of the amount prescribed in section 124 of the Act in respect of each day the offence continues to be committed.<br>(3) The penalties imposed under these Regulations shall be in addition to and not in derogation of any liabilities in respect of payment of compensation, suspension or revocation of any permit, consent or approval granted under these Regulations or such other remedy provided for in law, a petroleum agreement or permit. |
| | **PART VI – MISCELLANEOUS** |
| **Register of permits and approvals** | **156.** (1) The Authority shall keep a register of all permits, certificates, consents and approval and changes thereto and shall individually record their—<br>(a) terms and conditions;<br>(b) amendments;<br>(c) duplicates;<br>(d) suspensions, revocations or termination;<br>(e) accompanying fees paid to the Authority; and<br>(f) Any other relevant information.<br>(2) Any person may, during the Authority's working hours, inspect the register subject to paying a fee prescribed in Schedule IX.<br>(3) The fee under sub-regulation (2) above does not apply to officers of the National Government, parliament, judiciary or the Authority or the Authority's authorised representatives, for official purposes while on duty. |
| **Grievance redress** | **157.** (1) A contractor, permit holder or other such person dissatisfied with a decision of the Authority in respect of any matter provided for under these Regulations may make a complaint to the Authority in writing. |

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| | (2) The Authority shall acknowledge the receipt of the complaint in writing within five (5) days and attend to the complaint within thirty (30) days.<br>(3) Where a contractor is not satisfied with the Authority's response to the complaint, a contractor may appeal to the Tribunal within thirty (30) days of the receipt of the Authority's response to the complaint. |
| **Revision of fees and forms** | **158.** (1) The Cabinet Secretary in consultation with the Authority may, from time to time, revise any fees or forms to capture any material escalation of its administrative costs, currency fluctuation, inflation or such other matter as the Authority may deem necessary.<br>(2) The Cabinet Secretary may, from time to time, update fines set under the Act concerning these Regulations with the aim of improving retribution and reparation.<br>(3) Fees under these Regulations shall be paid via bank transfer into a designated government account to be informed by the Authority. |
| **Lacunae** | **159.** Matters not covered in the Act, these Regulations, permits or approvals and which concern upstream petroleum operations shall be determined by the Cabinet Secretary or the Authority as the case may be, on a case-by-case basis. |
| **Guidelines** | **160.** The Cabinet Secretary and the Authority may update guidelines from time to time for the implementation of these Regulations. |

**SCHEDULE I – SURVEY APPROVAL**

**APPLICATION FORM**

**Regulation 14(1)(a)**

This application is hereby submitted under the Petroleum (Upstream Petroleum Operations) Regulations, 2024 for approval of petroleum survey as follows:

| **Applicant's details:** | |
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| 1. Name of applicant (full corporate name): | |
| 2. Applicant's Address (full corporate address): | |
| 3. Petroleum Agreement/Permit name and number: | |
| 4. Phone number: | |
| 5. Fax: | |
| 6. Email address: | |

| **Survey details:** | |
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| 1. Type of the survey: | |
| 2. Purpose of the survey | |
| 3. Area to be covered by the survey: | |
| 4. Proposed start and finish date for the survey: | |
| 5. Methodology and equipment to be used: | |
| 6. Name of the person conducting the survey: | |
| 7. Contact details of the person conducting the survey: | |
| 8. Name of the person responsible for communications with the Authority regarding the survey application | |

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| 9. Contact details of the person responsible for communications with the Authority regarding the survey application (full name, address, telephone number and email address | |

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| **Enclosed documents**: (tick the boxes as appropriate) | |
| | copy of the applicant's registration documents |
| | survey program |
| | map of the operational area |
| | environmental impact statement |
| | cadastral map |
| | copy of fee payment receipt |
| | other supporting documents (specify, where applicable) |

**Declaration:**

1. I/We have read and understood the relevant sections of the Petroleum Act, 2019, Petroleum (Upstream Petroleum Operations) Regulations, 2024 and other relevant laws or applicable laws as may be relevant and agree to abide by them.
2. I/We hereby confirm that the information provided in this application is to my knowledge true and accurate.
3. I/We understand that it is an offence to give false information in an application for a survey approval.
4. I/We acknowledge that our company shall conduct surveys as approved by the Authority.
5. I/We hereby confirm that we and our contractors have technical and financial capability to conduct operations subject to the approval.
6. I/We acknowledge that our company shall not commence and conduct any survey operations prior to obtaining an approval from the Authority.

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| Date: (dd-mm-yyyy) | |
| Name of Authorised Applicant's representative | |

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| Signature: | |

**FOR OFFICIAL USE ONLY**

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| Date application received | |
| Name of Authorized Authority Representative | |
| Signature and stamp | |

**FORM OF SURVEY APPROVAL**

**Regulation 14(1)(a)**

**Survey Approval no**.: xxxx/yyyy

This survey approval is hereby issued under the Petroleum (Upstream Petroleum Operations) Regulations, 2024 exclusively to the named applicant to conduct the survey (-es) as follows:

**Applicant name**: _____

**Address:** (full corporate address) _____

**Phone number**: _____

**Email address**: _____

**Type and purpose of survey**: (description of the survey): _____

**Area to be covered by survey**: (description of the area or distance of survey): _____

**Expiry date:** (dd-mm-yyyy of first expiry date): _____

**Renewal:** (dd-mm-yyyy of new expiry date in case of renewal): _____

**Terms and conditions:**

1. The applicant or a person conducting a survey on behalf of the applicant shall—
   a. commence work within____(___) months from issuance of this approval, unless when an unforeseen circumstance arises;
   b. inform the Authority about an unforeseen circumstance that can delay the start of works and may request an extension to the period of_____(_____) months mentioned above;
   c. execute survey works under submitted survey program and not deviate from its approval except for during an emergency;
   d. comply with all applicable laws and regulations and best industry practices;
   e. procure and maintain an adequate insurance cover;
   f. provide data, reports and information in compliance with the Petroleum Act, 2019, Petroleum (Upstream Petroleum Operations) Regulations, 2024, Petroleum Agreement;
   g. submit the amended survey programme, where an applicant intends to deviate from the approved program.
   h. other terms and conditions_____
2. This approval is valid for___(___)_____and may not be altered, revised, or modified, except with the consent of the Applicant and the Authority.

Date of issuance: (dd-mm-yyyy of issuance)

Signature and stamp: (Authority's representative)

**SCHEDULE II – DRILLING PERMIT APPLICATION FORM**
**Regulation 17(2)(a)**

This application is hereby submitted under the Petroleum (Upstream Petroleum Operations) Regulations, 2024 for the drilling permit as follows:

| **Applicant's details:** | |
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| 1. Name of applicant (full corporate name): | |
| 2. Applicant's Address (full corporate address): | |
| 3. Petroleum Agreement name and number: | |
| 4. Phone number: | |
| 5. Fax: | |
| 6. Email address: | |

| **Permit details:** | |
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| 1. Type of permit requested | |
| 2.Well(s) name and description | |
| 3.Description of well activities | |
| 4. Proposed start and finish date of work | |
| 5. Description of methodology to be used | |
| 6. Description of equipment to be used | |
| 7. Name of a sub-contractor (where such person is not a contractor | |
| 8. Address of a sub-contractor | |
| 9. Name of the person responsible for communications with the Authority regarding the permit application | |

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|---|---|
| 10. Contact details of the person responsible for communications with the Authority regarding the permit application (full name, address, telephone number and email address | |

| **Enclosed documents**: (tick the boxes as appropriate) | |
|---|---|
| | copy of the applicant's registration documents |
| | complete well plan |
| | global positioning system (GPS) location of each well |
| | environmental impact statement |
| | copy of fee payment receipt |
| | other supporting documents (specify, where applicable) |

**Declaration:**

1. I/We have read and understood the relevant sections of the Petroleum Act, 2019, Petroleum (Upstream Petroleum Operations) Regulations, 2024 and other relevant laws or applicable laws as may be relevant and agree to abide by them.
2. I/We hereby confirm that the information provided in this application is to my knowledge true and accurate.
3. I/We hereby undertake that our company, its contractors and sub-contractors poses the ability to construct a well site, access road to the well site, facilitate mobility of equipment, supplies, and materials to the well site during drilling, monitoring, appraisal and evaluation activities
4. I/We hereby confirm that we and our contractors have technical and financial capability to conduct operations subject to the approval.
5. I/We understand that it is an offence to give false information in an application for a drilling permit.
6. I/We acknowledge that our company and our contractors and sub-contractors shall conduct drilling operations as approved by the Authority.
7. I/We acknowledge that our company and our contractors and sub-contractors shall not commence and conduct drilling operations and drill a well prior to obtaining a drilling permit from the Authority.

| | |
|---|---|
| Date: (dd-mm-yyyy) | |
| Name of Authorised Applicant's representative | |
| Signature: | |

**FOR OFFICIAL USE ONLY**

| | |
|---|---|
| Date application received | |
| Name of Authorized Authority Representative | |
| Signature and stamp | |

Date: (dd-mm-yyyy)

Authorised Applicant's representative:(full name)

_____

Authorized Signature: (Applicant's representative)

_____

## CONTENTS OF THE WELL PLAN

### Regulation 17(2)(e)

Description of information

1. The name and number of the well(s).
2. The location of the well(s), in the form of
    a. the elevation, latitude and longitude of the well; and
    b. the basin and sub-basin (if applicable) in which the well is located; and
    c. the map sheet name; and
    d. A map showing the location of the well within the block in which it will be drilled.
3. A description of each well activity.
4. A description of
    a. the philosophy of and description of the design, construction and conduct of drilling operations and management of the well; and
    b. the possible production or injection activities of the well, showing that each well activity will be carried out in accordance with applicable law and best petroleum industry practices, codes, standards and specifications.
5. The proposed timelines for carrying out each well activity, including estimated commencement and cessation dates.
6. Well performance objectives against which the performance of each well activity is to be measured and measurement criteria that define those performance objectives.
7. An explanation of how a contractor identified and will mitigate risks, including how a contractor will identify, monitor, mitigate and otherwise deal with -
    a. a well integrity hazard; and
    b. a significant increase in an existing risk for the well,

including the possibility of continuing a well activity for the purpose of dealing with the well integrity hazard or the risk.

8. Details of chemicals and other substances that may be –
    a. in, or added to, treatment materials to be used for the purposes of drilling or hydraulic fracturing undertaken in the course of each well activity; or
    b. otherwise introduced into a well or underground formation in the course of each well activity; or
    c. otherwise used in the course of each well activity.

9. The proposed total volume and composition of fluids and other materials to be used in the course of each well activity.

10. The estimated total volume and composition of returned fluids and other materials from the well and arrangements for the management of those fluids and materials.

11. Arrangements for the management of any produced formation materials that result from drilling, well testing or production.

12. Details of when and how a Contractor will notify the Authority, and give the Authority reports and information, about

    a. each well activity; and

    b. well integrity hazards; and

    c. significant increases in existing risks for the well; and

    d. other matters relevant to the conduct of each well activity.

13. An explanation of the way that a Contractor will keep information required by the well management plan.

14. A list of the principal Kenya and international standards that apply in relation to each well activity and plant used in connection with each well activity.

15. If the well management plan relates to a drilling activity, the following –

    a. Anticipated total depth (TD) in measured depth (MD) and TVD (true vertical depth) of the well.

    b. well objectives or well targets

    c. the proposed path of the well;

    d. the estimated spud date and completion date for the well;

    e. a description of the rig and configuration of any blow-out prevention equipment and their method of operation;

    f. contingency plan for operational problems

    g. Well prognosis

    h. the casing programme, including design safety factors for burst, collapse or tension;

    i. the complete casing cementation programme;

    j. a description of downhole barriers and procedures for testing those barriers;

    k. the formation evaluation programme (including cutting and fluid sampling, coring, wireline logging and mud logging);

    l. the drilling fluids programme;

    m. the geological prognosis for the well;

n. the name and address of the drilling contractor;

o. the names and addresses of other contractors and subcontractors involved in the drilling activity and the nature of the services that they are to provide;

p. the name and contact details of the person who will have responsibility for communications with the Authority regarding the drilling activity;

q. details of the insurance held by a Contractor in relation to the well and the drilling activity.

**Drilling Permit no**.: xxxx/yyyy

## FORM OF DRILLING PERMIT

**Regulation 20**

This drilling permit is hereby issued under the Petroleum (Upstream Petroleum Operations) Regulations, 2024 exclusively to the named applicant to conduct the drilling and well operations as follows:

**Applicant name**: _____

**Address:** (full corporate address): _____

**Type and purpose permit**: (description of issued permit): _____

**Commencement date** (dd-mm-yyyy of permit issue date): _____

**Expiry date:** (dd-mm-yyyy of first expiry date): _____

**Renewal:** (dd-mm-yyyy of new expiry date in case of renewal): _____

**Terms and conditions:**

1. The applicant or a person conducting drilling operations on behalf of the operator shall—
   (a) commence work within__(____) months from issuance of this permit, unless when an unforeseen circumstance arises;
   (b) conduct drilling operations under submitted well program except for during an emergency or reapproval by Authority;
   (c) comply with all applicable laws and regulations and best industry practices;
   (d) procure and maintain an adequate insurance cover;
   (e) provide data, reports and information in compliance with the Petroleum Act, 2019, Petroleum (Upstream Petroleum Operations) Regulations, 2024, Petroleum Agreement;
   (f) submit the amended well programme, where an applicant intends to deviate from the approved program;
   (g) other terms and conditions_____
2. This permit is valid for___(___)_____and may not be altered, revised, or modified, except with the consent of the Applicant and the Authority.

Date of issuance: (dd-mm-yyyy of issuance)

Signature and stamp: (Authority's representative)

## SCHEDULE III – FIELD DEVELOPMENT PLAN

### Structure and Content of Field Development Plan

### Regulation 38(2)(b)

***Section 1. Executive summary***

The Executive Summary should state the essential features of the development including:

(a) a brief description of the petroleum reservoirs, reserves, development strategy, facilities and pipelines

(b) an outline map showing the field limits, Development Area boundary contours of fluid contacts, existing and proposed contract boundaries

(c) an estimate of base ultimate recovery, and the minimum, base and maximum petroleum production profiles of:

(i) gas, in thousand cubic metres and billion cubic feet per year

(ii) oil, in thousand metric tonnes and in million US barrels per year

(d) a statement of intent towards any parts of the field not addressed by the plan, including any commitment for later development of that area, or to the later stages of a phased development. Any provision for the development of other hydrocarbons in the area should also be identified.

(e) the essential elements of the Field Management Plan

(f) project schedule and total capital cost

(g) a statement of the provision for decommissioning and an undertaking that the field will be decommissioned in accordance with the requirements of the applicable law.

***Section 2. Field description, which shall include -***

A Field description should include the description of the field on which the development has been based, including a baseline for future modifications as development proceeds.

2.1 Seismic Interpretation and Structural Configuration, which shall include -

(a) a brief summary of the extent and quality of the seismic survey and

(b) the structural configuration of the field presented using appropriate figures and maps.

2.2 Geological Interpretation and Reservoir Description, which shall include -

(a) the stratigraphy of the reservoirs,

(b) facies variations,

(c) the geological correlation within the reservoir and any other relevant geological factors that may affect the reservoir parameters (both vertically and horizontally) and thereby influence reservoir continuity within the field should be described in summary form.

Figures and maps should be provided where appropriate. The geological data provided should reflect the basis of reservoir subdivision,

2.3 Geological Model which shall describe –

how the seismic mapping of surfaces and faults, the reservoir subdivision and the log analysis were integrated to build a 3D geological model of the field.

2.4 Petrophysics and Reservoir Fluids, which shall include –

(a) a brief summary of the key field petrophysical parameters incorporating log, core, Special Core Analysis (SCAL) and well test data.

A summary of the field Pressure-Volume Temperature (PVT) description and fluid analyses should be included.

2.5 Petroleum Initially in Place, which shall include -

(a) The volumetric and any material balance estimates of petroleum initially in place for each reservoir unit together with a description of the cause and degree of uncertainty in these estimates.

The basis of these estimates should be available and referenced.

2.6 Reservoir Modelling Approach, which shall include -

(a) Description of the means of representing the field, either by an analytical method, some form(s) of numerical simulation, or by a combination of these, should be briefly described.

(b) Where the reservoir has been subdivided for reservoir modelling into flow units and compartments stating the basis for division.

(c) A description of the extent and strength of any aquifer(s).

(d) Where Drill Stem or Extended Well Tests (DSTs or EWTs) have been performed, the implications of these on history matching and predicted production performance should be given.

2.7 Reservoir Development, Improved and Enhanced Recovery Processes (as and where applicable), which shall include-

(a) The chosen recovery process should be described and justified (e.g., depletion, pressure maintenance, aquifer support).

(b) Description of methods for targeting IOR (either mechanical or operational). Where none are proposed this should be justified.

(c) For all oil or condensate reservoirs, the potential for application of improved recovery processes beyond conventional methods (EOR) should be described.

(d) Where a field demonstrates economic potential for EOR, a Contractor should set out their firm plans to implement this.

(e) For phased development, the expected recovery rate and recoverable volumes presented for each phase;

2.8 Wells Design and Production Technology, which shall include -

(a) A description of selected production strategy for the field that shall include the long- and short-term production plans

(b)The basic requirements for well-completion design, including the potential for water shut off, artificial lift, stimulation and sand production should be discussed. A reference to a Wells Basis of Design document should be provided.

(c) The methods used to optimise production should be summarised, including reference to the methods used for integrated modelling of wells, flowlines and production facilities.

***Section 3. Development and management plan***

This section should set out the form of the development, describe the facilities and infrastructure, and establish the basis for field management during the construction and production phases.

3.1 Preferred Development Plan, Reserves and Production Profiles, which shall include -

(a) The proposed reservoir development which indicates the drilling programme, well locations, expected reservoir sweep and any provision for a better-than-expected geological outcome.

(b) An estimate of the range of reserves for each reservoir should be given with a brief explanation of how the uncertainty was determined and explicit statements of probability where appropriate. For more complex reservoirs, in particular where EOR processes need to be considered, the range of reserves for each reservoir flow unit and compartment should be given. The assumed economic cut off should be stated.

(c) Expected production profiles, for total liquids, oil, gas, gas usage and flare, associated gas liquids and produced water for the life of the field are required. Where fluids are to be injected, annual and cumulative injection profiles should be provided.

(d) The measurement point at which production shall be measured and the respective shares of petroleum allocated.

(e) The anticipated date for Cessation of Production (CoP), together with the underlying assumptions,

3.2 Drilling and Production Facilities, which shall include –

(a) The drilling section should briefly describe the drilling package and well workover capability. There should be a description of the proposed well-completion philosophy and figure(s) showing casing and completion, with main components' diameters and depths relative to the lithological main units and reservoir depths. A reference to a wells Basis of Design (which is consistent with the reservoir development and management plan, section 2.7 and 2.8).

(b) The production facilities section should describe the major equipment and infrastructure items and identify the design and operating parameters used as the basis of design. Estimated jacket and topsides weights should be provided for platform developments. A clear indication of system bottlenecks and limitations that can give rise to production constraints should also be given together with details of the contingencies available to maintain production in the event of major equipment failure(s). The scope and flexibility for future modification and expansion to address any potential for upside, incremental and satellite field development should also be identified, including any spare capacity provided for in the facilities/pipelines design to allow for future development (including the application of improved oil recovery techniques) or third-party tie-ins.

3.3 Process Facilities

This section should provide a brief description of the operating envelope and limitations of the processing plant. The use and disposal of separator gas should be described. The section should also include:

(a) A summary of the main and standby capacities of major utility and service systems, together with the limitations and restrictions on operation. The design and operating philosophy for key equipment items should be discussed. A process flow diagram and a piping and instrumentation diagram should both be provided;

(b) A summary of the methods of well testing and metering petroleum produced and utilised

(c) Plant layout

(d) A brief description of systems for collecting and treating oil, water and other discharges

(e) A brief description of any fluid treatment and injection facilities

(f) A brief description of the main control systems and their interconnections with other onshore or offshore facilities, where applicable

(g) Provision of space or utilities for future EOR facilities or future developments

(h) Expected production efficiency and a brief description of any new technologies to be deployed

A reference to a facilities Basis of Design (which is consistent with the reservoir development and management plan) should be provided.

3.4 Project Planning, which shall include -

(a) Schedules defining key events and decision dates in the detailed design, procurement, construction and commissioning stages of major elements of the development should be provided.

(b) The schedules should be provided in addition to work programs and budgets that are developed and approved as required by petroleum agreement.

3.5 Operation and maintenance strategy which shall include –

(a) A description of the facilities operations and maintenance strategy that the company would expect to adopt and

(b) high level maintenance schedule.

3.6 Preliminary decommissioning plan, which shall include -

(a) A description of the proposed methods of decommissioning and decommissioning plan should be included to show the basis for the decommissioning expenditure estimates. Steps taken in the design to facilitate eventual decommissioning of the production petroleum facilities should be identified.

(b) A calculation of the quarterly accrual charges to be paid by a Contractor to the decommissioning fund for the overall field decommissioning costs.;

3.7 Costs, which shall include -

(a) Cost information is required by the Authority to assess the economics of the development. Capital (capex), operational (opex) and decommissioning expenditure profiles are required to be provided.

(b) The costs should be provided in addition to work programs and budgets that are developed and approved as required by petroleum agreement.

(c) The cost breakdown shall be accompanied with the economic justification for the proposed development option.

3.8 Field Management Plan, which shall include -

(a) Principles and objectives that a Contractor will hold to when making field-management decisions and conducting field operations and, in particular, how economic recovery of oiland gas will be maximised over field life.

(b) The plan, as described here and in different sections of the FDP, shall show clear and consistent linkage, between reservoir development plans, well designs and subsea facilities, and process facilities.

(c) The rationale behind the data gathering and analysis proposed in order to resolve the existing uncertainties and understand dynamic performance of the field during both the development drilling and production phases should be outlined.

(d) The potential for workover, re-completion, re-perforation and further drilling should be described.

(e) Where developments include common user facilities assessment of capacity constraints shall be assessed.

(f) The methods to be used to set production priorities should be given.

(g) For gas reservoirs the criteria for installation of additional compression should be identified.

3.9 Brief description of alternative development concepts that were considered and reasons and justification for selection of preferred development concept.

***Section 4. Environmental impact assessment, which shall include -***

(a) A detailed environmental impact assessment for the field, which identifies current and possible environmental issues and concerns and

(b) a plan for ensuring environmental compliance during the life of the field.

This Environmental Impact Assessment shall be prepared and approved in compliance with relevant laws or applicable laws as may be relevant.

***Section 5 Health, Safety, Sustainability and Security provision, which shall include -***

(a) A contractor's proposal for ensuring the sustainability, safety, health, security and welfare of persons and facilities in or about the proposed upstream petroleum operations.

***Section 6 Local content provisions, which shall include –***

(a) A Contractor's proposals for stimulating local content, which shall cover:

(i) employment, including employment of local personnel and training,

(ii) knowledge and technology transfer

(iii) local goods and services

***References***

In addition to content provided in this Annex, Contractor may be required to provide any such other data and information as the law requires and as the Cabinet Secretary otherwise requires that is relevant to the field development plan.

**SCHEDULE IV – PERMIT TO CONSTRUCT UPSTREAM PETROLEUM FACILITIES**

**APPLICATION FORM**

**Regulation 50(2)(a)**

This application is hereby submitted under the Petroleum (Upstream Petroleum Operations) Regulations, 2024 for the permit to construct selected upstream petroleum facilities.

| **Applicant's details:** | |
|---|---|
| 1. Name of applicant (full corporate name): | |
| 2. Applicant's Address (full corporate address): | |
| 3. Petroleum Agreement name and number: | |
| 4. Phone number: | |
| 5. Fax: | |
| 6. Email address: | |

| **Permit details:** | |
|---|---|
| 1. Type of permit requested | |
| 2. Description of proposed petroleum facilities | |
| 3. Proposed start and finish date of work | |
| 4. Name of a sub-contractor (where such person is not a contractor) | |
| 5. Address of a sub-contractor | |
| 6. Name of the person responsible for communications with the Authority regarding the permit application | |
| 7. Contact details of the person responsible for communications with the Authority regarding the permit | |

| | |
|---|---|
| application (full name, address, telephone number and email address | |

| **Enclosed documents**:<br>(Tick the boxes as appropriate) | |
|---|---|
| | copy of the applicant's registration documents |
| | facility design |
| | copies of design approval (where applicable) |
| | copies of procedures to deliver safe construction and operations of facilities |
| | environmental impact assessment |
| | copies of environmental impact assessment approval |
| | copies of other approvals required under the law |
| | copy of fee payment receipt |
| | other supporting documents (specify, where applicable) |

**Declaration:**

1. I/We have read and understood the relevant sections of the Petroleum Act, 2019, Petroleum (Upstream Petroleum Operations) Regulations, 2024 and other relevant laws or applicable laws as may be relevant and agree to abide by them.
2. I/We hereby confirm that the information provided in this application is to my knowledge true and accurate.
3. I/We hereby confirm that we and our contractors have technical and financial capability to conduct operations subject to the permit.
4. I/We understand that it is an offence to give false information in an application for a permit to construct.
5. I/We acknowledge that our company shall conduct construction operations as approved by the Authority and other state bodies of Kenya.
6. I/We acknowledge that our company shall not conduct any construction operations prior to obtaining an approval from the Authority.

| | |
|---|---|
| Date: (dd-mm-yyyy) | |
| Name of Authorised Applicant's representative | |
| Signature: | |

**FOR OFFICIAL USE ONLY**

| | |
|---|---|
| Date application received | |
| Name of Authorized Authority Representative | |
| Signature and stamp | |

**FORM OF PERMIT TO CONSTRUCT SELECTED PETROLEUM FACILITIES**

**Regulation 50(2)(a)**

**Permit no**.: xxxx/yyyy

This permit to construct is hereby issued under the Petroleum (Upstream Petroleum Operations) Regulations, 2024 exclusively to the named applicant to construct facilities specified in this permit as follows:

**Applicant name**: _____

**Address:** (*full corporate address)*: _____

**Phone number**: _____

**Email address**: _____

**Facilities to be built/constructed**:(description of the survey):

_____

**Location**: (description of the area or distance of survey): _____

**Expiry date:** (dd-mm-yyyy of first expiry date): _____

**Renewal:** (dd-mm-yyyy of new expiry date in case of renewal): _____

**Terms and conditions:**

1. The applicant or a person conducting a survey on behalf of the applicant shall—
   a. commence work within___(____) months from issuance of this permit, unless when an unforeseen circumstance arises;
   b. inform the Authority about an unforeseen circumstance that can delay the start of works and may request an extension to the period of_____(_____) months mentioned above;
   c. execute construction works under the application and not deviate from its approval except for during an emergency;
   d. comply with all applicable laws and regulations and best industry practices;
   e. procure and maintain an adequate insurance cover;
   f. provide data, reports and information in compliance with the Petroleum Act, 2019, Petroleum (Upstream Petroleum Operations) Regulations, 2024, Petroleum Agreement;
   g. other conditions (specify here): _____
2. This permit is valid for___(___)_____and may not be altered, revised, or modified, except with the consent of the Applicant and the Authority.

Date of issuance: (dd-mm-yyyy of issuance)

Signature and stamp:

(Authority's representative)

**SCHEDULE V – PRODUCTION PERMIT**

**APPLICATION FORM**

**Regulation 71(2)(a)**

This application is hereby submitted under the Petroleum (Upstream Petroleum Operations) Regulations, 2024 for the production permit.

| **Applicant's details:** | |
|---|---|
| 1. Name of applicant (full corporate name): | |
| 2. Applicant's Address (full corporate address): | |
| 3. Petroleum Agreement name and number: | |
| 4. Phone number: | |
| 5. Fax: | |
| 6. Email address: | |

| **Permit details:** | |
|---|---|
| 1. Type of permit requested | |
| 2.Name of the field | |
| 3. Name of production wells | |
| 4. Proposed start date of production | |
| 5. Proposed production rate (maximum efficient production rate): | |
| 6. Estimated monthly production volumes for each reservoir units | |
| 7. Estimated total production volumes for each reservoir unit | |
| 8. Estimated total of injection of gas, water, special fluids for pressure | |

| | |
|---|---|
| maintenance and/or secondary of tertiary (enhanced) recovery | |
| 9. Estimated volumes requested to be flared, vented or injected | |
| 10. Name of the person responsible for communications with the Authority regarding the permit application | |
| 11. Contact details of the person responsible for communications with the Authority regarding the survey (full name, address, telephone number and email address | |

| | |
|---|---|
| **Enclosed documents**: (Tick the boxes as appropriate) | |
| | copy of applicant's registration documents |
| | report on the petroleum reservoir |
| | copy of approved field development plan |
| | copy of approved environmental impact assessment study report of the upstream petroleum operations |
| | production plan and schedule for each reservoir unit |
| | production forecast statement |
| | historical and updated reservoir monitoring data, analysis and other related data |
| | field decommissioning plan |
| | all relevant environmental licenses and reports as maybe required by law |
| | copy of fee payment receipt |
| | other supporting documents (specify, where applicable) |

**Declaration:**

1. I/We have read and understood the relevant sections of the Petroleum Act, 2019, Petroleum (Upstream Petroleum Operations) Regulations, 2024 and other relevant laws or applicable laws as may be relevant and agree to abide by them.
2. I/We hereby confirm that the information provided in this application is to my knowledge true and accurate.
3. I/We hereby confirm that we and our contractors have technical and financial capability to conduct operations subject to the permit.
4. I understand that it is an offence to give false information in an application for a survey approval.
5. I acknowledge that our company shall conduct petroleum production operations as approved by the Authority and other state bodies of Kenya.
6. I acknowledge that our company shall not commence and conduct any petroleum production operations prior to obtaining an approval from the Authority.

| | |
|---|---|
| Date: (dd-mm-yyyy) | |
| Name of Authorised Applicant's representative | |
| Signature: | |

**FOR OFFICIAL USE ONLY**

| | |
|---|---|
| Date application received | |
| Name of Authorized Authority Representative | |
| Signature and stamp | |

**Permit no**.: xxxx/yyyy

**FORM OF PRODUCTION PERMIT**

**Regulation 71(2)(a)**

This production permit is hereby issued under the Petroleum (Upstream Petroleum Operations) Regulations, 2024 exclusively to the named applicant to construct facilities specified in this permit as follows:

**Applicant name**: _____

**Address: (full corporate address)** _____

**Phone number**: _____

**Email address**: _____

**Petroleum Agreement name and number**: _____

**Block/field/reservoir**:_____

**Commencement date:** (dd-mm-yyyy): _____

**Expiry date:** (dd-mm-yyyy of first expiry date) _____

**Renewal:** (dd-mm-yyyy of new expiry date in case of renewal): _____

**Proposed production rate (maximum efficient production rate)**: _____

**Estimated monthly production volumes for each reservoir units**_____

**Estimated total production volumes for each reservoir unit**_____

**Estimated total of injection of gas, water, special fluids for pressure maintenance and/or secondary of tertiary (enhanced) recovery:** _____

**Estimated volumes requested to be flared, vented, or injected:** _____

**Terms and conditions:**

1. The applicant or a person conducting petroleum production operations shall -

   a. commence production operations within____(____) months from issuance of this permit, unless when an unforeseen circumstance arises;

   b. execute production operation under the application and not deviate from its approval except for during an emergency;

   c. comply with all applicable laws and regulations and best industry practices;

   d. procure and maintain an adequate insurance cover;

   e. provide data, reports and information in compliance with the Petroleum Act, 2019, Petroleum (Upstream Petroleum Operations) Regulations, 2024, Petroleum Agreement;

   f. other conditions (specify here): _____

2. This permit is valid for___(___)_____and may not be altered, revised, or modified, except with the consent of the Applicant and the Authority.

Date of issuance: (dd-mm-yyyy of issuance)

Signature and stamp:

(Authority's representative)

## SCHEDULE VI – WELL PLUGGING AND ABANDONMENT PERMIT

## APPLICATION FORM

**Regulation 112(2)(2)(a)**

This application is hereby submitted under the Petroleum (Upstream Petroleum Operations) Regulations, 2024 for the well plugging and abandonment permit.

| **Applicant's details:** | |
|---|---|
| 1. Name of applicant (full corporate name): | |
| 2. Applicant's Address (full corporate address): | |
| 3. Petroleum Agreement name and number: | |
| 4. Phone number: | |
| 5. Fax: | |
| 6. Email address: | |

| **Permit details:** | |
|---|---|
| 1. Type of permit requested | |
| 2. Name/Type of well(s) to be plugged and abandoned | |
| 3. Total depth or the measured depth of the well | |
| 4. Description of associated facilities to be decommissioned (if applicable): | |
| 5. Methodology and equipment to be used | |
| 6. Proposed start and finish date of work | |
| 7. Name of a sub-contractor responsible for well plugging and abandonment (where such person is not an applicant) | |

| | |
|---|---|
| 8. Address of a sub-contractor responsible for well plugging and abandonment (where such person is not an applicant) | |
| 9. Name and Contact Details of the person responsible for communications with the Authority regarding the permit application | |
| 10. | |

| **Enclosed documents**: (tick the boxes as appropriate) | |
|---|---|
| | copy of applicant's registration documents |
| | copy of well plugging and abandonment plan |
| | global positioning system (GPS) location of each well |
| | description of well associated facilities to be abandoned |
| | environmental impact assessment license |
| | copy of fee payment receipt |
| | other supporting documents (specify, where applicable) |

**Declaration:**

1. I/We have read and understood the relevant sections of the Petroleum Act, 2019, Petroleum (Upstream Petroleum Operations) Regulations, 2024 and other relevant laws or applicable laws as may be relevant and agree to abide by them.
2. I/We hereby confirm that the information provided in this application is to my knowledge true and accurate.
3. I/We hereby confirm that we and our contractors have technical and financial capability to conduct operations subject to the permit.
4. I/We understand that it is an offence to give false information in an application for a drilling permit.

5. I/We acknowledge that our company and our contractors and sub-contractors shall conduct well plugging and abandonment operations as approved by the Authority.

6. I/We acknowledge that our company and our contractors and sub-contractors shall not commence and conduct well plugging and abandonment operations prior to obtaining a permit from the Authority.

| | |
|---|---|
| 7. Date: (dd-mm-yyyy) | |
| Name of Authorised Applicant's representative | |
| Signature: | |

**FOR OFFICIAL USE ONLY**

| | |
|---|---|
| Date application received | |
| Name of Authorized Authority Representative | |
| Signature and stamp | |

## CONTENTS OF A WELL PLUGGING AND ABANDONMENT PLAN

**Regulation 112(2)(d)**

Description of information

1. The name and number of the well(s).
2. The location of the well(s), in the form of
   a) the elevation, latitude and longitude of the well; and
   b) the basin and sub-basin (if applicable) in which the well is located; and
   c) the map sheet name and block number.
3. Total depth or measured depth of the well
4. Justification for the plug and abandonment of each well;
5. The name and address of contractors and sub-contractor(s) responsible for well plugging and abandonment and the nature of the services that they are to provide;
6. The name and contact details of the person who will have responsibility for communications with the Authority regarding the well plugging and abandonment activity;
7. The proposed timeline for well plugging and abandonment activity, including estimated commencement and cessation dates.
8. A list of the principal Kenya and international standards that apply in relation to well plugging and abandonment.
9. Description of well plugging and abandonment methodology including methodology for restoration of the individual well site, well site access road and removal of all equipment, supplies and materials which shall include among others:
   a) details of the sequence of the operations
   b) preliminary results of the well
   c) current status and proposed plugging and abandonment well schematic
   d) the number and the proposed depth of plugs
   e) the type of cement to be used
   f) the post abandonment well status
   g) the health, safety and environment plan
   h) well barriers
   i) site remediation and restoration plan
   j) the proposed method, scope and timing for the survey of plugged and abandoned wells.
10. Such methodology is subject to approval by the Authority.

**FORM OF WELL PLUGGING AND ABANDONMENT PERMIT**

**Well Plugging and Abandonment Permit**

**Regulation 115**

**Permit no**.: xxxx/yyyy

This plugging and abandonment permit is hereby issued under the Petroleum (Upstream Petroleum Operations) Regulations, 2024 exclusively to the named applicant to conduct the plugging and abandonment operations as follows:

**Applicant name**: _____

**Address:** (full corporate address) _____

**Type and purpose permit**: (description of issued permit): _____

**Name/Type of well(s) to be plugged and abandoned**: _____

**Commencement date** (dd-mm-yyyy of permit issue date): _____

**Expiry date:** (dd-mm-yyyy of first expiry date) _____

**Renewal:** (dd-mm-yyyy of new expiry date in case of renewal) _____

**Terms and conditions:**

1. The applicant or a person conducting well plugging and abandonment operations on behalf of the operator shall—

(a) commence work within__(____) months from issuance of this permit, unless when an unforeseen circumstance arises;

(b) conduct well plugging and abandonment operations under submitted well program except for during an emergency or reapproval by Authority;

(c) comply with all applicable laws and regulations and best industry practices;

(d) procure and maintain an adequate insurance cover;

(e) provide data, reports and information in compliance with the Petroleum Act, 2019, Petroleum (Upstream Petroleum Operations) Regulations, 2024, Petroleum Agreement;

(f) submit the amended well plugging and abandonment plan, where an applicant intends to deviate from the approved program;

(g) other terms and conditions (specify)_____

2. This permit is valid for___(___)_____and may not be altered, revised, or modified, except with the consent of the Applicant and the Authority.

Date of issuance: (dd-mm-yyyy of issuance)

Signature and stamp: (Authority's representative)

**SCHEDULE VII – PERMIT TO DECOMMISSION OR ABANDON AN UPSTREAM PETROLEUM FACILITY**

**APPLICATION FORM**

**Regulation 122(2)(a)**

This application is hereby submitted under the Petroleum (Upstream Petroleum Operations) Regulations, 2024 for the permit to decommission or abandon an upstream petroleum facility.

| **Applicant's details:** | |
|---|---|
| 1. Name of applicant (full corporate name): | |
| 2. Applicant's Address (full corporate address): | |
| 3. Petroleum Agreement name and number: | |
| 4. Phone number: | |
| 5. Fax: | |
| 6. Email address: | |

| **Permit details:** | |
|---|---|
| 1. Type of permit requested | |
| 2. Description of facilities to be decommissioned | |
| 3. Proposed start and finish date of work | |
| 4. Description of methodology to be used | |
| 5. Description of equipment to be used | |
| 6. Name of a sub-contractor (where such person is not a contractor) responsible to execute work | |
| 7. Address of a sub-contractor | |
| 8. Name of the person responsible for communications with the Authority regarding the survey | |

| | |
|---|---|
| 9. Contact details of the person responsible for communications with the Authority regarding the survey(full name, address, telephone number and email address | |

| **Enclosed documents**: (tick the boxes as appropriate) | |
|---|---|
| | copy of applicant's registration documents |
| | copy of final abandonment plan |
| | environmental impact statement |
| | copy of fee payment receipt |
| | other supporting documents (specify, where applicable) |

**Declaration:**

1. I/We have read and understood the relevant sections of the Petroleum Act, 2019, Petroleum (Upstream Petroleum Operations) Regulations, 2024 and other relevant laws or applicable laws as may be relevant and agree to abide by them.
2. I/We hereby confirm that the information provided in this application is to my knowledge true and accurate.
3. I/We hereby confirm that we and our contractors have technical and financial capability to conduct operations subject to the permit.
4. I/We understand that it is an offence to give false information in an application for a permit to decommission or abandon an upstream petroleum facility.
5. I/We acknowledge that our company and our contractors and sub-contractors shall conduct decommissioning and abandonment of facilities as approved by the Authority.
6. I/We acknowledge that our company and our contractors and sub-contractors shall not commence and conduct well plugging and abandonment operations prior to obtaining a permit from the Authority.

| | |
|---|---|
| 1. Date: (dd-mm-yyyy) | |
| Name of Authorised Applicant's representative | |
| Signature: | |

**FOR OFFICIAL USE ONLY**

| | |
|---|---|
| Date application received | |
| Name of Authorized Authority Representative | |
| Signature and stamp | |

**STRUCTURE AND CONTENT OF FINAL DECOMMISSIONING AND ABANDONMENT PLAN**

**Regulation 122(2)(c)**

The Final Abandonment Plan shall contain the following minimum content:

1. Description of the history of the oilfield;
2. Geographical location of the installations and wells;
3. Complete inventory and description of the installation, oil pipelines and wells, including the location, depth and type of material of the Installations to be abandoned;
4. Variation of climatic conditions in the region;
5. Environmental and Socio-economic Impact Study, including the results of specific studies relating to fauna, hydrocarbons and heavy metals resulting from the operational activities;
6. Inventory of hazardous chemical materials found in the installations and plans for their removal;
   g) description of production logs and deposits;
7. Consideration about the possibility of continuing the production operations, covering technical, financial, safety, environmental and socio-economic aspects;
8. Description of the dismantling options, in relation to the technical, economic, environmental and safety aspects, and assessment of the impact on other users of the sea and land (including the possibility of use of the installation for other activities in the area, such as fishing, agriculture and industrial activities);
9. Presentation of the preliminary process of public engagement to the respective users.
10. Detailed description of the recommended dismantling solution, including:
    a) Description of the methodology of comparative assessment and the results of all the compared assessments;
    b) Measures and procedures for the correct dismantling, removal and disposal/reuse of the installations, in accordance with current practice in the petroleum industry;
    c) Measures and procedures to mitigate the environmental impact and appropriately rehabilitate the landscape, in accordance with the applicable law and current practice in the petroleum industry;
    d) Procedures for the removal of hazardous chemical materials, neutralisation and disposal;
    e) List of safety measures on the basis of a documented risk analysis;
    f) Aspects related with the management and supervision of abandonment plans;
    g) Time horizon and schedule for the implementation of the dismantling activities.

11. Methodology used for preparing the estimate of abandonment costs, estimate of costs and opportunities/vulnerabilities in relation to costs.

12. Post-abandonment monitoring plans.

13. Measures to manage potential risks arising post decommissioning.

**FORM OF PERMIT TO DECOMMISSION OR ABANDON AN UPSTREAM PETROLEUM FACILITY**

**Permit to Decommission or Abandon an Upstream Petroleum Facility**

**Regulation 123(a)**

**Permit no**.: xxxx/yyyy

This permit to decommission or abandon an upstream petroleum facility is hereby issued under the Petroleum (Upstream Petroleum Operations) Regulations, 2024 exclusively to the named applicant to decommission or abandon an upstream petroleum facility as follows:

**Applicant name**: _____

**Address:** (full corporate address) _____

**Petroleum Agreement name and number**: _____

**Type and purpose permit**: (description of issued permit):

_____

Description of facilities to be decommissioned or abandoned:

_____

**Commencement date** (dd-mm-yyyy of permit issue date): _____

**Expiry date:** (dd-mm-yyyy of first expiry date) _____

**Renewal:** (dd-mm-yyyy of new expiry date in case of renewal) _____

**Terms and conditions:**

1. The applicant or a person conducting decommissioning and abandonment operations on behalf of the operator shall—

(a) commence work within__(___) months from issuance of this permit, unless when an unforeseen circumstance arises;

(b) conduct decommissioning and abandonment operations under submitted final decommissioning plan except for during an emergency or reapproval by Authority;

(c) comply with all applicable laws and regulations and best industry practices;

(d) procure and maintain an adequate insurance cover;

(e) provide data, reports and information in compliance with the Petroleum Act, 2019, Petroleum (Upstream Petroleum Operations) Regulations, 2024, Petroleum Agreement;

(f) submit the amended final decommissioning plan, where an applicant intends to deviate from the approved plan;

(g) other terms and conditions (specify)___

2. This permit is valid for___(___)_____and may not be altered, revised, or modified, except with the consent of the Applicant and the Authority.

**Date of issuance**: (dd-mm-yyyy of issuance)

Signature and stamp:

(Authority's representative)

## SCHEDULE VII - FRAMEWORK FOR DISMANTLING OF ONSHORE PETROLEUM FACILITIES

**Regulation 128**

| **Component of the Installation** | **Use on Land** | | |
|---|---|---|---|
| | Inside Nature Reserves | <800m (1) from Dwellings or Community Buildings | Other Locations |
| Storage tanks | Remove | Remove | Remove |
| Surface equipment (e.g., separators, generators, pumps, motors) | Remove | Remove | Remove |
| Surface tubing | Remove | Remove | Remove |
| Underground tubing (<0.9 m below the surface) (2) | Best Option (3) | Best Option (3) | Best Option (3) |
| Underground tubing (>0.9 m below the surface) (2) | Best Option (3) | Keep | Keep |
| Buildings | Best Option (3, 4) | Best Option (3, 4) | Best Option (3, 4) |
| Infrastructures inside installations (for example, roads, galleries, land work, electricity transmission lines, services) | Best Option (3, 4) | Best Option (3, 4) | Best Option (3, 4) |
| Removal of Foundations and Underground Equipment (e.g., stakes, cement, cable supports, power supply cable, instrument cable) | Best Option (3, 4) | Best Option (3, 4) | Best Option (3, 4) |
| Water wells | Best Option (3, 4) | Best Option (3, 4) | Best Option (3, 4) |

**Notes:**

1. ASTM E1527 Phase 1 (Standard Practice for Environmental Site Assessments: Phase I Environmental Site Assessment Process) minimum distance from brownfields or voluntary cleaning.

2. Pipes buried at a depth of at least 0.9 metres may be safely abandoned on site after cleaning/purification.

3. The most viable option to be determined by a contractor on the basis of a specific comparative assessment of each site.

4. Without prejudice to these requirements, the installations may be left wholly or partially at the site where they will have a new use (such as the recovery of live resources) or may be left without causing unjustified interference with other users, in accordance with Note 3.

**SCHEDULE VII - FRAMEWORK FOR DISMANTLING OFFSHORE PETROLEUM FACILITIES**

**Regulation 128**

| Component of the Installation | Water Depth | |
|---|---|---|
| | < 400 m | > 400 m |
| Topsides | Remove | Remove |
| Floating Units (FPSO, TLP, FSO, FPU, CALM, etc.) | Remove | Remove |
| Oil offloading lines (OOLs), fluid transfer lines (FTLs), other connections between Floating Units | Remove | Remove |
| Substructures (SPJ, SCPT, all others fixed to the seabed | Total or partial removal (1, 2, 4) | Total or partial removal (1, 2) |
| Subsea well head and production equipment | Best Option (2) | Best Option (2, 6) |
| Umbilicals including associated risers and structures, such as SCM, SDU, UTA, etc. | Best Option (2) | Best Option (2, 6) |
| Mooring systems for floating installations (wire & chain, tendons, suction piles etc.) | Best Option (3) | Keep |
| Export pipes, field flow lines | Best Option (3, 5, 8) | Keep |
| Risers/riser components and associated structures with pipes/flow lines, such as F/PLET, F/PLEM, valve manifolds etc. | Best Option (7) | Keep |

**Notes:**

1. Partial removal is permitted if it is determined to be the best option on the basis of the specific comparative assessment of the location. The options of reefs are applicable in both cases of total or partial removal. The directives of IMO Resolution A.672(16) establish the necessity of an unobstructed column of water of not less than 55 m above any partially removed installation or structure.

2. A contractor will determine the most viable option on the basis of a specific comparative analysis of the site.

3. Establish the necessity that there is an unobstructed water column at a depth of under 55 m above any partially removed installation or structure.

4. In the case of fixed installations in less than 400 m of water and weighing more than 4000 MT in air, excluding the deck and superstructure, they may be partially removed. Notwithstanding these requirements, the installations may be kept totally or partially at the

site where they will have a new use (such as the recovery of a live resource) or may be left without causing unjustifiable interference with other users of the sea in accordance with Note 2.

5. The Entities under Contract will determine the most viable option for the correction of each crossing of the coast. A crossing of the coast is defined as the region in which a pipe transits from the sea to land.

6. In depths of water >400 m, the Entities under Contract may select an abandonment in situ or "Keep" as the Best Option, and they must present a comparative evaluation of the specific site.

7. For risers/riser components and structures only at <400 m (such as F/PLET, F/PLEM, valve manifolds etc.), the Entities under Contract must carry out a comparative assessment of the specific site in order to determine the Best Option.

8. In the case of export pipes and flow lines located in areas where trawling is not usually practised, and in areas where these lines are buried, partially buried or corroded, the Entities under Contract may select abandonment on site or "Keep" as the Best Option.

## SCHEDULE VIII - QUANTITY OF THE CORE, CUTTING OR SAMPLE TO BE PROVIDED TO THE AUTHORITY

**Regulation 146(4)**

| Item | Core, cutting or sample | Quantity of core, cutting or sample | Period for giving core, cutting or sample |
|---|---|---|---|
| 1 | Drill cuttings | 200 g dry weight per sample interval | Six (6) months after the rig release date. |
| 2 | Full hole conventional core | One-third of the core | Six (6) months after the rig release date |
| 3 | Full hole conventional core | Remainder of the core | As soon as practicable after the expiry, surrender, cancellation, revocation or termination of right granting instrument |
| 4 | Gaseous petroleum samples | 300 $cm^3$ | As soon as practicable after the expiry, surrender, cancellation, revocation or termination of the relevant instrument |
| 5 | Fluid petroleum samples | 1 L | For a sample collected during the drilling of a well — the period ending on the day 6 months after the rig release date. For a sample collected during a test on a completed well — as soon as practicable after the expiry, surrender, cancellation, revocation or termination of the relevant instrument. |
| 6 | Sidewall core material | All material collected | Eighteen (18) months after the rig release date. |
| 7 | Palynological, paleontological or petrological material | All material collected | Eighteen (18) months after the rig release date |

## SCHEDULE IX – APPLICATION/APPROVAL FEES

The Authority may update any and all fees from time in accordance with regulation 146, and the updated fees shall take effect on the day of their publication on the Authority's website or in the Gazette, whichever occurs first.

| Anchor Regulation | Description | Fee (USD) |
|---|---|---|
| **14(1)(b)** | Survey approval, renewal or modification | 5,000.00 |
| **17(2)(b)** | Drilling permit or modification | 10,000.00 |
| **38(3)** | Field development plan approval or modification | 25,000.00 |
| **50(2)(b)** | Permit to construct upstream petroleum facilities | 20,000.00 |
| **54(2), 55(5)** | Design approval or modification of permit to construct | 10,000.00 |
| **66(1)(f)** | Permit construct, install fixed platform or to place mobile platforms offshore | 20,000.00 |
| **69(2)(2)(i)** | Test production | 1,000.00 |
| **71(2)(b)** | Production permit | 30,000.00 |
| **112(2)(b)** | Plugging and abandonment permit | 5,000.00 |
| **122(2)(b)** | Permit to decommission or abandon an upstream petroleum facility | 15,000.00 |
| **156(2)** | Access to register of permits and approvals | 100.00 |